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**YETİŞKİN TÜRK ÖĞRENCİLERİNİN İLĞİ-TÜMCELERİNİ ÖĞRENMEDE
İZLEDİKLERİ SIRA VE BUNUN
AD ÖBEKLERİNİN ERİŞİMLİK SIRALAMASI (NPAH) İLE BAĞLANTISI**

**THE NOUN PHRASE ACCESSIBILITY
HIERARCHY (NPAH) IN THE ACQUISITION OF
ENGLISH RESTRICTIVE RELATIVE CLAUSES
BY TURKISH ADULT LEARNERS OF ENGLISH**

Aynur BAYSAL

(Doktora Tezi)

Eskişehir, 1999

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**By
Aynur BAYSAL/**

**Thesis Submitted for the Doctor of Philosophy
English Language Teaching Department
Advisor: Prof. Dr. Gül Durmuşođlu Kōse**

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DOKTORA TEZ ÖZÜ

YETİŞKİN TÜRK ÖĞRENCİLERİNİN İLĞİ-TÜMCCELERİNİ ÖĞRENMEDE İZLEDİKLERİ SIRA VE BUNUN AD ÖBEKLERİNİN ERİŞİMLİK SIRALAMASI (NPAH) İLE BAĞLANTISI

Aynur Baysal

İngiliz Dili Eğitimi Anabilim Dalı
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Danışman: Prof. Dr. Gül Durmuşoğlu-Köse

Dil öğreniminde hedef dilin yapısının önemi inkar edilemez. Bu yapının nasıl ve neye göre öğrenildiğine dair bir çok açıklamalar yapılmıştır. Yapıların belirtilik derecesinin öğrencinin öğrenme sürecinde önemli bir rol oynadığı iddia edilmiştir. Öğrencilerin belirtisiz yapıları, belirtili yapılara göre hem daha önce hem de daha az hatayla öğrendikleri öne sürülmüştür.

Bu çalışmanın amacı belirtilik ve dil öğrenimi konusundaki iddiaları, daraltma işlevli ilgi tümceleri açısından ele almak ve Ad Öbeklerinin Erişimlik Sıralaması (NPAH) ile ilintisini araştırmaktır. Çalışmanın cevaplamayı amaçladığı sorular şunlardır: a) İngilizceyi yabancı dil olarak öğrenen yetişkin Türk öğrenciler İngilizce ilgi tümcelerini öğrenirken NPAH'yi takip ediyorlar mı?, b) eğer etmiyorlarsa, İngilizce ilgi tümcelerini öğrenme sıraları nedir?, ve c) orta-düzye altı ve orta-düzye üstü seviyedeki İngilizce öğrencilerinin ilgi tümcelerini edinim sıraları farklılık gösteriyor mu?.

Bu amaçla toplam 80 öğrenciye (orta-düzye altı seviyede 40 öğrenci ve orta-düzye üstü seviyede 40 öğrenci) ilgi tümceleri üzerine üç farklı veri toplama aracı verilmiştir. Bunlar; dilbilgisel doğruluk saptama testi, cümle bağlama ve çeviri sınavlarından oluşmaktadır. Bulgular NPAH ile kıyaslandığında, iyelik eki tümcesi yapısının sıralama açısından farklılık gösterdiğini ve bu yüzden öğrencilerin NPAH'yi takip etmediğini ortaya çıkarmıştır. Bulgular doğrultusunda, ilgi tümcelerini öğrenmedeki sıra özne ile başlamakta, tümleş, ve dolaylı tümleş veya yalın-dışı durum ile devam etmektedir.

ABSTRACT

While learning a language, the importance of the target language syntax cannot be denied. However, how this syntax is formed and developed in the learners' interlanguage has undergone many different explanations. Markedness is thought to play a role in learners' selection of syntactic items in the learning process; that is, it is claimed that students learn unmarked structures earlier and with a higher rate of accuracy than marked structures.

This study aims at investigating this claim by studying Restrictive Relative Clauses in English within the framework of the Noun Phrase Accessibility Hierarchy (NPAH). It tries to find answers to three main questions: a) Do Turkish adult learners of English follow the NPAH while acquiring Restrictive Relative Clauses?, b) If not, what is the order of acquisition in Restrictive Relative Clauses for these learners?, and c) Do lower-intermediate and upper-intermediate students exhibit the same learning order while learning Restrictive Relative Clauses?

To answer the research questions, 80 subjects (40 lower-intermediate and 40 upper-intermediate students) have been given three different tasks eliciting the five relative clause types on the NPAH. These included Grammaticality Judgement Test, Sentence Combining Task, and Translation Task. The findings suggest that the Genitive construction seems to violate the otherwise existing hierarchy, and thus neither of the groups follow the NPAH while learning English Restrictive Relative Clauses. Instead, the error rates refer to an order starting with Subject relativization, followed by Direct Object relativization, and Indirect Object or Oblique relativization.

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CHAPTER 1

INTRODUCTION

1.1. Overview of the Chapter

'Language Universals' and 'Markedness' have been one major focus of interest in explaining Second Language Acquisition (SLA) as a process. The basic trend has been the attempt to understand the relationship between ease or difficulty of learning a structure and the degree of markedness of a feature in the syntax of the target language. That is, learning a structure has been associated with its level of markedness, claiming that more marked structures are learned later and with more difficulty whereas less marked ones are learned earlier and with more ease (Greenberg, 1991).

This study concerns itself with this phenomenon by concentrating on implicational language universals (see Section 1.4.4). Within implicational universals, it specifically investigates Relative Clauses as acquired by adult Turkish learners of English.

This chapter, briefly, touches upon the theoretical background of this framework, defines the relevant terminology, and states the variables and the research questions prompting the study.

1.2. Background of the Study

Teachers of English as a Foreign Language (EFL) have always been trying to find explanations to understand their students' process and progress in language learning, their level of linguistic knowledge and their quality of production. Within this language learning framework, for many students as well as teachers, the process entails the development of the basic skills of listening, speaking, reading, and writing. As the ultimate goal, learners are expected to become as proficient (native-like) as possible in the language area they want to get trained.

In the task of learning a language, the terms 'acquisition' and 'learning' have brought about differences in meaning. *Acquisition* implies acquiring a new language or native language subconsciously and naturally, whereas *learning* requires conscious learning under instruction. However, as it is quite difficult to come up with a borderline between what is actually learned subconsciously or what is learned consciously, these two terms have frequently been used interchangeably. Having adopted this perspective,

second/foreign language acquisition/learning will be used to refer to the same process of mastering a new language (Dulay, Burt & Krashen, 1982).

Without differentiating between 'learning' or 'acquisition', from the point of view of the language teacher, en route to making the learner as proficient as required, the importance and the role of the grammar (syntax) of the target language have always been the center of debate. Although controversial views exist--mainly those which support that grammar instruction in the classroom should be minimized (Prabhu, 1987), and those which claim that grammar should be dealt with intensively (Long, 1991; Celce-Murcia, 1991)--the discussion of teaching grammar has hardly reached the level of eliminating grammar completely from the syllabus. Rather, the concern has been the issue of whether formal instruction makes a difference, or whether the learners follow a natural acquisition order, irrespective of the nature of the instruction they receive (Pienemann, 1989; Pica, 1992). Or, like others claim (see Ellis, 1994), is this acquisition sequence a combination of several interacting and overlapping processes?

In the attempt to understand the factors involved in determining how, why and if students learn certain structures or items in a given order, various explanations have been provided and tested by linguists and researchers of second language acquisition. A vast body of findings and claims come from researchers concerned with interlanguage studies, which base most of their explanations on input (language which the learner is exposed to, or the language directly addressed to the learner) and the process of intake (the internalization of the imposed data and rules) (Gass & Madden, 1985; Troike-Saville, 1985; Ellis, 1985; Pica & Doughty, 1985; Hirvonen, 1985). Within these input-intake considerations, the claims, depending on different factors like input frequency (see Section 2.5.1.) or L1 transfer (see Section 2.5.2.), have been investigated. However, results have indicated that neither the learners' L1 nor the frequency of the input provided are powerful enough to account for the actual data on interlanguage grammars.

In relation to input and how it becomes intake, Linguistic Universals, Language Typology, and Markedness Theory in particular have come up with quite strong claims highlighting that input, while becoming intake, is, for most, controlled by the degree of markedness of a given structure (the less marked a structure, the easier and earlier it becomes intake) (Broselow, Chen, & Wang; 1998). Although the primary aim of

Linguistic Universals and Markedness is not to explain SLA, the findings of the studies, still have had an indirect impact on providing evidence for the acquisition process of second-language learners. The main focus of interest has centered on the issue of system-external factors (i.e., input) and system-internal factors (i.e., cognition and linguistic processes). Of special concern is one of the system-internal factors, known as linguistic universals, which is assumed to play a vital role in the acquisition order of grammatical structures (McLaughlin, 1987).

What linguistic universals, in particular, have to explain in SLA can be defined in terms of the Markedness Theory (see Section 1.4.3.): an outcome and extension concerning linguistic universals. The markedness value of some syntactic categories focused is expected to predict a universal acquisition order of similar structures under the same category. The hypothesis is that most structures within a language have a marked-unmarked distinction which is expressed in terms of degrees of markedness (Croft, 1990). Thus it is claimed that language learners, while acquiring a second language, would follow a route starting from the unmarked towards the marked category. This, in turn, provides an understanding of how, and according to what, language learners establish their acquisition order within their current state of interlanguage; following this route while processing available input into intake. In other words, learners acquire the unmarked structure first, and, in the course of their development of the interlanguage system, they move on towards the more marked end of the continuum. Thus, the proficiency level of the learner increases in accordance with the degree of marked structures in his or her interlanguage. The interlanguage of a highly proficient learner is supposed to contain both marked and unmarked forms, whereas the less proficient learner is expected to have acquired basically unmarked and fewer marked elements of the target language.

Although the findings of the Markedness Theory, in terms of language learning, suggest that the acquisition order determined by the markedness degree of a grammatical category under study is universal, some subjects with different native language (L1) backgrounds, and at different proficiency levels, have exhibited results that partly contradict the suggested acquisition order of a given universal. For example, the Noun Phrase Accessibility Hierarchy, which shows the markedness relationship of relative clause formation with respect to Subject, Direct Object, Indirect Object,

Oblique, and Genitive has been frequently investigated (Hyltenstam, 1983; Eckman, 1988; Sadighi, 1994; Hamilton, 1995) without any conclusive results about the application of this hierarchy in second language acquisition. Neither has proficiency level been given special focus in most of the studies, and consequently it has an inconclusive place in literature with regard to its effect on acquisition order as assigned by markedness degrees.

1.3. The Purpose of the Study

There is a vast body of research foregrounding markedness as a determinant factor in the acquisition order of syntax of the target language (L2). It is claimed that the degree of markedness of forms within the same structure is important in the establishment of the interlanguage of a learner at a given proficiency level. Relative Clauses, especially, in the light of the Noun Phrase Accessibility Hierarchy (NPAH) (see section 1.4.5.) have been one major focus as they lend an example to various degrees of markedness within the same structure. Studies with subjects of different L1 backgrounds (i.e., Korean, Chinese, French, Persian) (Hyltenstam, 1983) have introduced supporting, as well as partly contradicting results for the acquisition order of relative clauses in English; especially Genitive on this hierarchy has experienced findings violating the NPAH.

Having taught English Writing skill courses for a long time, the researcher herself has observed that Turkish students of English exhibit errors while producing relative clauses. Colleagues teaching in the same setting have also confirmed this observation. However, whether the rate of errors is in accordance with the NPAH is not conclusive. In addition, whether this observed rate of errors has any relationship with the proficiency levels of the students is not clear. That is, does one's proficiency level follow the NPAH, and cross-sectionally, is it possible to demonstrate that the interlanguage system of the learners develops in the way determined by the markedness degree of the relative clause function?

The purpose of this study is to see whether adult Turkish learners of English follow the NPAH in terms of error rates. It further aims at investigating whether learners' interlanguage development (as determined by their proficiency level) exhibits the same pattern suggested by the markedness value of the relative clause types on

NPAH. If the NPAH does not apply to Turkish learners of English, what kind of an order do they exhibit?

1.4. Definitions of Terms

1.4.1. Interlanguage

“The term ‘interlanguage’ was coined by Selinker (1969, 1972) to refer to the interim grammars constructed by second language learners on their way to the target language“ (McLaughlin, 1987, p.60). That is, it refers to the language that the learner makes use of while acquiring the new system; it consists of structures both evident in L1 and L2. In literature, it is possible to see the terms ‘approximative system’ or ‘transitional competence’ carrying the same meaning as interlanguage (McLaughlin, 1987). It is argued that the interlanguage of any learner, at any stage, should be analyzed linguistically as rule governed behavior. Consequently, interlanguages, like any other language, can be idealized linguistically, and are supposed to obey the constraints set by linguistic universals (McLaughlin, 1987). That is why the study of interlanguages, with respect to language universals and markedness, is expected to provide valuable data on the learners’ developing system of the target language.

1.4.2. Input-Intake

In language learning, the language exposure directed to the learner is considered essential for acquisition. In its broadest sense, Gass and Madden (1985) define input as “what is available for going in” and intake as “what actually does go in” (p.3). This means that learners hear or read a lot of things in the target language and are being corrected or reinforced with respect to their production; this is called *input*. However, the actual process of acquiring and internalizing the input data by extracting rules and converting these rules into accurate usage is considered as *intake* (Robin & Oxford, 1992). However, mere input does not always facilitate intake because not all input serves language development.

1.4.3. Markedness

There are two approaches to ‘markedness’; namely, one based on a binary system (either marked or unmarked), and one relying on degrees of markedness (less marked and more marked). The Typological Universal Approach uses the terms *less marked* and *unmarked* to refer to what is expected, or normal in human languages. This approach does not necessarily establish the ‘marked’ form because many instances involve a series based on a scale of naturalness of some sort (McLaughlin, 1987, p. 103). Thus, whereas in its classical sense introduced by the Prague School, it is a binary system of either marked or unmarked features, language typology sees markedness primarily as a relative phenomenon differing in the degree of markedness (Ellis, 1994). This study is going to adapt the **relative degree** framework where features of a language are scaled from ‘more marked’ towards ‘less marked’ (Ellis, 1994). Croft (1990) has introduced three criteria effective in the determination of the degree of markedness in a given set of forms of the same structure:

1. **STRUCTURE:** this concerns the presence or absence of a feature. For example, plural can be considered more marked than singular because it typically involves the addition of a morpheme.
2. **BEHAVIOUR:** this concerns whether one element is grammatically more ‘versatile’ than another – the more versatile it is, the more unmarked it is. Versatility is evident both in the number of inflections a specific grammatical category possesses (for example, singular third person has three forms in English – ‘he,’ ‘she,’ and ‘it’ – whereas plural third person has only one: ‘they’) and in the number of syntactic contexts in which a specific grammatical element can occur (for example, more constructions occur with the active voice than with the passive voice).
3. **FREQUENCY:** the unmarked value is likely to occur with greater frequency than the marked value, both in actual use (i.e., in actual texts) and also in all languages of the world.

1.4.4. Implicational Universals

Studies on Language Typology and Typological Language Universals have come up with a distinction of implicational and non-implicational universals (Croft, 1990; Hawkins, 1988). Non-implicational universals are true for all languages, but one feature does not imply the existence of another feature in the same language. However, cross-linguistic comparisons have highlighted the fact that there are connections between two or more features. That is, they say that the presence of one feature implies the presence of another or others, so that implicational universals have the form of 'if/then' statements. These can be simple where the implicational universal consists of just two elements; or they can be complex, where several elements imply one another. Complex implicational universals sometimes take the form of a universal hierarchy, which covers a chain of interrelated implicational universals, which differ in their degree of markedness within the same chain. One of the most widely known universal hierarchies is the Noun Phrase Accessibility Hierarchy (NPAH) introduced by Keenan and Comrie in 1977 (cited in Croft, 1990).

1.4.5. The Noun Phrase Accessibility Hierarchy (NPAH)

Before explaining how the NPAH works within the markedness framework, it is essential to define the notion of relative clauses (RC) in English. As Sadighi (1994) notes "English...is an SVO language in which the restricting relative clause stands to the right of the head NP [noun phrase] called post-nominal relative clauses. A RC variable marker is substituted for the relativized NP in all positions, except for the direct object position which is optionally deleted on the surface" (p. 143). Further, restrictive relative clauses "allow, in addition to *who* and *which*, the relative pronoun (or conjunction) *that* in most instances, or even suppression of the relative pronoun" (Croteau, 1995, p. 139) as in the clause *the cat I saw was drinking milk*. In its spoken form, the relative clause is not set off intonationally from the main clause; in its written counterpart, this is reflected by the absence of the commas.

Within this definition, it is possible to relativize NPs in six different functions within the relative clause. These functions, as proposed by Keenan and Comrie in 1977, exist within an implicational hierarchy and the degree of markedness of these six types differs with respect to the function of the relative pronoun in the relative clause. Thus

the hierarchy consists of grammatical relations beginning with the subject at the highest level (the less marked) and continuing with direct object, indirect object, oblique, genitive, and object of comparison (see Figure 1.1) (Hamilton, 1995, p.102).

Studies of world languages have borne out the fact that if a language can relativize on position n (for example indirect object relativization), it has to be able to relativize on position $n-1$ (for example direct object relativization). Accordingly, if a language can relativize on position n , and necessarily on $n-1$; n is more marked in relation to $n-1$. This is how the degrees of markedness are assigned to the specific relativization types. Each $n-1$ is less marked than n .

Subject	(SU)	The man who knows the woman
<Direct Object	(DO)	The man that the woman knows
<Indirect Object	(IO)	The man that the woman gave a pencil to
<Oblique	(OBL)	The desk that the woman put the pencil on
<Genitive	(GEN)	The man whose pencil the woman took
<Object of Comp.	(OC)	The man that the woman is taller than

Figure 1.1. The Noun Phrase Accessibility Hierarchy

If we are to formulate this relationship of relative pronoun functions in a relative clause, reflecting the degree of markedness for each, it can be said that subject is the least marked, whereas the object of comparison is the most marked extreme of the hierarchy. This is displayed as follows:

SU<DO<IO<OBL<GEN<OC

It is worth pointing out that the object of comparison is problematic in English because many native speakers of English do not accept these kinds of sentences as grammatical. That is why, in this study, the object of comparison will not be included or taken into consideration.

1.4.6. Natural Acquisition Order (Developmental Sequence)

Ellis (1991) points out that “one of the main findings of L2 research is that learners pass through a series of identifiable stages in acquiring specific grammatical structures such as negation, interrogatives, and relative clauses” (p. 705). This order, he claims, is to a large extent irrespective of the L1 of the learner, the nature of instruction, or the age group of the learner. Although accepting that second language development is not a uniform phenomenon, Robin and Oxford (1992) also agree that the task of acquiring a new language continues in remarkably similar ways for most types of learners. Acquisition order in SLA is usually determined in terms of the rate of errors subjects exhibit in the use of a given grammatical category or structure. That is, when the feature under study is fully acquired, the learner makes almost no errors. The number of errors thus determines the level of acquisition of one item or items in relation to each other (Bailey, Madden, Krashen, 1973).

1.5. Variables of the Study

Dependent Variable: The acquisition order of the different relative clause types. (Acquisition order will be determined in terms of the rate of errors exhibited in each type).

Independent Variable: The degree of markedness of the different relative clause types within NPAH.

Moderating Variable: The English Language Proficiency levels of the students (lower intermediate, upper-intermediate).

1.6. Research Questions

There are two main questions to be answered in this study:

1. Do adult Turkish students of English follow the NPAH while acquiring Restrictive Relative Clauses?
 - a) Do lower-intermediate learners of English follow the NPAH while acquiring Restrictive Relative Clauses?
 - b) Do upper-intermediate learners of English follow the NPAH while acquiring Restrictive Relative Clauses?
2. If the answer to the first Research Question is “No”; what is the order of acquisition in Restrictive Relative Clauses for Turkish adult learners of English?
 - a) What is the order for lower-intermediate learners?
 - b) What is the order for upper-intermediate learners?

CHAPTER 2

LITERATURE REVIEW

2.1. Introduction

A lot of people nowadays agree on the importance of learning English as a second or foreign language. This means they either attend a language course or school and learn the new language under instructional guidance in a non-native environment--what is called English as a Foreign Language (EFL); or they enjoy the opportunity of learning the language in the country where it is spoken for the purpose of integrating into that society--what is called English as a Second Language (ESL). Under either circumstance, the learners are expected to undergo certain changes and improvements so as to be able to accomplish given tasks in the target language.

Learners engage their ability to listen/read and understand, and then, to react, either in written or spoken form. In all of these cases, learners need a frame, a system, a rule governed linguistic mechanism to account for their accuracy, and that is the grammar of the language.

2.2. Language Learning and the Role of Grammar

For many decades, the role of grammar in language learning has been the center of debate and has attained a "touchy" place within the field of ESL and EFL. Before discussing its role, however, different understandings and interpretations related to grammar should be reviewed. The way people have viewed grammar has also changed the way it is defined. Bowen, Madsen, and Hilferty (1985) have summarized some definitions of grammar which have survived and have been highlighted in literature on SLA.

1. To some it is a matter of etiquette: students are given prescriptive rules that help them achieve correct usage. This philosophy is evident in classes for native speakers of English. The most visible purpose seems to be the correction of certain forms and constructions that are considered erroneous or substandard... This is called a *usage grammar* or sometimes a *school grammar*.
2. Others think of grammar as a massive compendium of sentences and examples, explaining in great detail the rules and the exceptions, usually reaching back to literary sources for examples. Often these are multi-volume studies, containing thousands of pages, and usually following classical models. This is called *scholarly grammar*.

3. For others, grammar is a study of a language that deals with the forms and structures of words (morphology) and with their customary arrangement in phrases and sentences (syntax). There are of course several ways of looking at the forms and arrangements of words in sentences. One way utilizes 'signals' which identify some of the relationships such as (a) word order, (b) intonation, (c) function words, and (d) affixation. This is called a *signals grammar*.

4. The last concerns a set of 'rewrite rules' followed by a set of 'transformational rules' that ideally can correctly (i.e., grammatically) produce any sentence in the language, but no utterances that would be judged nonsentences. This is called *generative grammar*.

(pp. 161-163)

Some linguists have even subsumed phonology and semantics under grammar (Lyons, 1981). In the area of ESL and EFL, however, grammar is taken by its simplest definition referring to rules "by which we put together meaningful words and parts of words of a language to communicate messages that are comprehensible" (Bowen et al, 1985, p. 161). This definition requires the competence of knowing the rule and applying the rule; that is, reflecting that the grammar is followed by the application of the grammatical rules into the production, either spoken or written.

There are researchers who have minimized the importance of grammar by claiming that 'communication' should be emphasized and grammar would arise automatically (Krashen, in Ellis, 1993); whereas others insisted on grammar instruction, saying that grammar is the skeleton of a language without which perception, as well as production, would be retarded (Ellis, 1990; Staczek, 1992; Batstone, 1994).

Nowadays, these two distinct approaches to grammar are backgrounded by an agreement in favor of grammar and its vital role in language learning. However, discussions have centered on the question of how grammar should be taught. Whether inductive or deductive, whether conscious or unconscious, the common ground is that grammar is a part of a language and it has a determinant effect on the whole learning-teaching process (Celce-Murcia, 1991; Ur, 1988; Woods, 1995).

Accepting the fact that grammar has an effect on the development of a learner's new language, it should be logical to assume that if we want to assess the learners' current stage of development, we have to consider the existing grammatical features in the learner's productions. Prompted by this idea, studies which are referred to as 'interlanguage studies' have gained considerable value within the scope of language learning.

2.3. Interlanguage

In the process of learning a language, learners start from one end of the continuum, which is usually referred to as *complete beginner*, and, in the course of time, they hopefully reach the level of *advanced*, or even become *native-like*. However, it usually takes years to become competent in a new language, and meanwhile, learners have to manage with a language in between; i.e., neither their native language nor the language they aim at learning. This language in between is called 'interlanguage'.

Interlanguage is used to refer to the interim grammars produced and used by second language learners on their way to the target language (McLaughlin, 1987). As the definition also suggests, interlanguages are not stable but dynamic, so they go through different developmental stages. These interim stages are characterized by the grammars and grammatical features that they contain and exhibit. Every other stage of the interlanguage is thought to come closer to the target form and develop more complex structures and linguistic features when compared to the previous one. What is more is that interlanguages, by nature, are rule governed and systematic so that "the internal organization of the interlanguage can be idealized linguistically, just like any other language" (McLaughlin, 1987, p.63).

By analyzing different learners at different stages of interlanguage, it is then possible to come up with stage by stage properties of the interlanguage. This means that every learner goes from one stage to another without omitting or skipping any of the stages, which brings us to the idea of a 'developmental sequence' (also called 'natural acquisition order') in language learning (Lightbown & Spada, 1977).

2.4. Developmental Sequence

Interlanguage studies, thus far, have mainly oriented themselves towards morpheme studies (like Dulay and Burt) and have come up with a number of learning sequences, which have found their place in the literature as 'Natural Acquisition Order' or 'Developmental Sequence.' In its broadest sense, Lightbown and Spada (1977) define this sequence as "the order in which certain features of a language are acquired in language learning" (p.121). To put it in another way, it is stated that the rules of a language are acquired in a predictable order -- some are acquired earlier, whereas others emerge later on. In addition, it is asserted that this natural acquisition order is

independent of the order in which rules have been taught (Mellow, Reeder & Forster, 1996), the age or L1 background of the learner (Lightbown and Spada, 1997). Although some stages of this developmental sequence can be accelerated, depending on the instruction or the similarities in L1 and L2, learners still go through them, but may be in different paces (Pica, 1992). For example, Dulay and Burt (1973, cited in McLaughlin, 1987) reported that child second language learners followed a similar developmental sequence in their use of functors, although they had quite a different amount of exposure to English. A finding which eliminates *exposure* in determining developmental stages in language learning. Similarly, studies by Bailey (1973) and Larsen-Freeman (1973) (cited in McLaughlin, 1987) with adult and children groups from different native language backgrounds supported the claim that developmental sequence is minimally affected by age and native language, suggesting a common natural order in language learning.

This developmental sequence has also been evident in the errors learners have exhibited while learning a language. It has been stated that errors, to a great extent, are developmental in nature, eliminating or minimizing the effect of L1, age, exposure and even instruction. Further, this acquisition or developmental order is said to be similar to the route followed by children acquiring their first language. For example, VanPatten (1984) has identified an invariant order of acquisition, which is said to hold true for both L1 and L2 learners. He suggests that age or L1 cannot be determinant or dominant in the order of the acquisition of some morphemes. Neither does input play an important role as his subjects had different amounts of exposure to the forms. Tables 2.1 and 2.2 illustrate the order of these morphemes.

Table 2.1.

Invariant Order for L2 Learners by Category

N	V	AUX
-s	-ing	cont.COP
articles	irreg.past	cont.AUX
-s (poss)	-s (3 rd pers)	

Table 2.2.
Invariant Order for L1 Learners by Category

N	V	AUX
-s	-ing	cont.COP
-s (poss)	irreg.past	cont.AUX
articles	-s (3 rd pers)	

(p. 89)

As it is also obvious from Tables 2.1. and 2.2., the only variation exists in the order of the acquisition of articles. That is, L2 learners acquire articles before the possessive -s, whereas L1 learners acquire the article system after the possessive -s.

Similarly, Hatch & Wagner-Gough (1976) have come up with an acquisition order for question formation. Their sequence is also claimed to be unaffected by the native language background of the learner, and thus is universal:

1. Rising Intonation
2. Tag Questions
3. Wh-Fronting
4. Modal Inversion
5. Be-Inversion
6. Embedded Questions

(p.40)

Despite being unable to give satisfactory sources for this kind of an order, researchers, like Dulay et al (1982), claim that there is an organizer in the brain of every person that “guides the acquisition process, limiting what can be learned to material that fits into the growing organization of the new language system, and rejecting material which does not yet fit into the emerging system” (p. 56). The question, then, is related to the nature of the organizer. Is it something cognitive and intuitive, taking place in the human brain; or is it something linguistic, referring to some characteristics of the language itself that is being learned?

In spite of the findings suggesting a non-variant order for acquisition in language learning, researchers and teachers have always been trying to promote learners in their interlanguage development. In this attempt, they have also sought for explanations on what affects the development and improvement of learners while struggling with new rules of the target language. Several explanations and assumptions have been provided, all of which claimed to explain and shed light on the effects upon language learning.

Although there are various theories and approaches explaining SLA, the most widely accepted one has been related to the importance of *input*. What now follows is a brief summary of some input considerations and factors which have attracted great attention in second language acquisition and learning.

2.5. Input-Intake

Classroom oriented research and interlanguage studies have borne out the fact that second-language learners' errors remain consistent in a remarkable way. The procedure has been that students make errors and teachers keep correcting them. However, many of the corrected errors continue to appear on a regular basis and with frustrating frequency in students' productions (Chastain, 1980).

This means that students have access to input (either natural language exposure or instructional guidance) consisting of positive evidence, which comes from the input and is comprised of a limited set of well-formed utterances; and, negative evidence, which is comprised of information to a learner that his/her utterance is deviant with respect to the target language norms (Gass & Lakshmanan, 1991). In spite of this input available, students have difficulties turning this exposure into intake. That is, they are unable to internalize the rules and structures either given to them directly or inductively extracted from the input sample. This fact, as Chastain (1980) also points out, is evident in the consistent errors the students exhibit in their productions.

The most important outcome of this finding is that it led researchers to assume that not everything given is necessarily taken. There are different kinds of strategies and processes going on in the students' brains so that they select bits of input, and, stage by stage, they internalize them and transform them into intake. Some rules and structures are 'taken in' early and successfully, whereas others show a delayed and sometimes erroneous production (Lightbown & d'Anglejan, 1985).

The outcome that not everything is internalized but chosen from the input, has been attributed to the different characteristics of input. Researchers, like Troike-Savile (1985), have highlighted the cultural aspect of input claiming that with the integration of culture, it is possible for the learner to convert input into intake. On the other hand, Ellis (1985) supports that input should be modified, then it is easier for the learner to make efficient use of the exposure received and develop his interlanguage system. Still others, like Pica and Doughty (1985) and Hirvonen (1985) find interaction to be the key concept in input processing; when the input is generated through interaction, it is expected to be more useful in terms of language development.

However, even without culture, interaction or modification, input is claimed to be processed into intake when necessary conditions are met. Slobin (1971) and Brown (1973) (cited in Hatch & Wagner-Gough, 1976) have identified some universal learning strategies based on first language acquisition, but which, as they claim, hold also true for second language learners. They postulate that input is converted to intake in light of these processes. So, these processes also determine what is going to become intake, a premise consistent with the fact that learners go through some common developmental sequences. The most useful ones they have summarized as:

- (1) Perceptual salience-that which is easily perceived is easier to learn. For example, articles, which in English do not receive stress, are not as easily perceived as nouns, verbs, etc. which do receive sentence stress.
- (2) Number of forms-the learner will begin with one form, then add others first in correct ways, then use the forms in variation, then gradually sort out the correct use of each of the forms. For example, children may acquire the /s/ plural first, then add the /z/ plural, add a few /iz/ plurals correctly, then mix them all up, then gradually sort out the forms according to the environment in which it appears.
- (3) Number of functions-if a form has only one function, it should be easy to learn; if it has many, and if the forms overlap in some of the functions, it will be more difficult.
- (4) Communication importance-if a form is not crucial for communication, it will not appear in initial acquisition data. The late development of the morphological system of English by most learners is a case in point. Articles, the copula, and most of the auxiliary system are not necessary for communication and they usually are developed rather slowly. (p. 52)

So, according to those strategies, learners, while developing their interlanguage and making use of the input data, set up some priorities and activate the intake process accordingly. However, it is obvious from this list of strategies that there are some overlapping ones (like the explanation for the acquisition of the article system); and unfortunately, these strategies are based on assumptions rather than a well-developed SLA theory. Moreover, these strategies are the result of children acquiring their native language; that it also applies for second language learners is again an assumption, which may or may not be true.

Accepting that learners “do not assimilate all the language data they are exposed to and...that their interlanguage contains rules and constructions which do not occur in L2 input” (Liceras, 1985, p. 354), we should now turn our attention to some theories that are claimed to have an impact on the interlanguage development, and thus, the input-intake process at large. It is essential to learn which characteristics of input are highlighted and more dominant in students’ preferences for intake.

2.5.1 Input Frequency

In explaining interlanguage development, researchers have claimed that the more frequent the learner is exposed to the target structure the earlier it is acquired (Lightbown & d’Anglejan, 1985). Thus, the development of interlanguage is parallel to the density of the input provided.

Prompted by this claim, Larsen-Freeman (cited in Dulay et al, 1982) has conducted a 4-year study with children, seeking a relationship between 14 grammatical structures and their frequency conveyed in the input. She has found out that there was no correlation between structure acquisition order and frequency; the errors that these children made were irrespective of the input frequency of those structures; however, all of them learned the same structures in the same order.

For example, Lightbown & d’Anglejan (1985) have conducted a study to see whether input frequency accelerates the process of intake. The focus of the investigation was interrogation, negation, and sentence word order (SVO). The subject samples were children and adults learning French. Interestingly enough, the findings suggested that there is no one-to-one correspondence with learners’ output and the input they received in these structures. The learners seemed to follow a route of their own.

Thus although the input provided was controlled in terms of its frequency, the output did not reflect this at the production stage.

To sum up, students make use of the input they receive while forming and developing their interlanguage system, but the frequency of a structure evident in the input does not thoroughly account for the intake of that structure. That is why, no matter how frequent learners hear or read the third person –s in the simple present tense, they acquire it late. This, like many other examples, made researchers seek for more specific explanations, and they came up with the learners' L1 as a determinant factor in the input-intake process.

2.5.2. Input-Intake and Contrastive Analysis

While looking for reasons why learners have problems overcoming some difficulties in language learning, researchers, for a very long time, traced the source back to the learners' first language. That is, it was assumed that the learners' native language plays an important role in the learners' pace and accuracy in learning the target language; mostly it was considered an obstacle in language learning.

Based on this idea, the Contrastive Analysis Hypothesis (CAH) came into existence and gained reputation over large period of time among researchers. *Contrastive Analysis* or *Contrastive Linguistics* can roughly be defined as "a subdiscipline of linguistics concerned with the comparison of two or more languages or subsystems of languages in order to determine both the differences and similarities between them" (Fisiak, 1981, p.1). The position taken by Contrastive Analysis was that the learner's first language would somehow interfere with the acquisition of a new language. The hypothesis mainly held two positions: the first being that where structures in the L1 differed from the ones in L2, the learner would exhibit errors that reflect more the structures of L1. That is, the learner's L1 habits would interfere with the learner's L2 production, and thus, 'negative transfer' would take place. Thus, irrespective of the input (initially) L1 and L2 differing structures would be delayed in becoming intake (Rivers, 1981). Sridhar (1981) summarizes the causes for negative transfer and says:

1. That the prime cause, or even the sole cause, of difficulty and error in foreign-language learning is interference coming from the learners' native language;
2. that the difficulties are chiefly, or wholly, due to the differences between the two languages;
3. that the greater these differences are, the more acute the learning difficulties will be;
4. that the results of a comparison between the two languages are needed to predict the difficulties and errors which will occur in learning the foreign language;
5. that what there is to teach can best be found by comparing the two languages and
6. then subtracting what is common to them, so that 'what the student has to learn equals the sum of the differences established by the contrastive analysis.

(p. 211)

The second position concerned a positive effect of the native language on learning the target language. This would take place where the L1 structures are similar to the ones in L2. This process was labeled as 'positive transfer' as it promoted the acquisition of the target forms (Dulay, Burt, and Krashen, 1982).

This kind of reasoning forced researchers of CAH to compare and contrast the L1 and L2 structures, and, then, design a syllabus according to the difficulties predicted on the basis of this analysis. In this way, they expected to accelerate the development of their learners' interlanguage and avoid errors before they even turned up. It was assumed that the input directed to the learners alone would not be able to account for intake. What the learners prefer to take in would, for most, be dictated by the contrast of the L1 and the L2. However, mostly, studies contradict with these assumptions and expectations. For example, Flynn (1984) conducted a study on the effect of CA in terms of left and right branching languages called the 'principle branching direction' (PDG). She has studied this in terms of the pre- and postposed subordinate adverbial clauses both with and without pronominal anaphoras which varied in direction. One group of subjects consisted of 51 Spanish learners of English (a right branching language like English) and the other group consisted of 53 subjects whose first language was Japanese, principally a left-branching language (unlike English or Spanish). The results indicated that the difference resulting from the nature of these two languages alone could not explain and account for the data at hand. This means that there was no significant relationship between the native language of the subjects and their acquisition of those structures.

A lot of research, like the one by Flynn (1984) or (Scott & Tucker, 1974) on the effectiveness and implications of the findings of CAH, found out that learners are affected from their native language minimally while learning a new language. The errors that learners exhibit in their stage of interlanguage could not be completely traced to their L1; just the contrary, only 5% in children and 20% in adult errors, the native language could have been the source (Dulay, Burt, and Krashen, 1982). This means that while learners make use of the input they receive, they are minimally affected by their native language in the process of intake (Morton, 1981).

The findings contradicting with the expectations and claims of the CAH can be summarized shortly as:

1. In neither child nor adult L2 performance do the majority of the grammatical errors reflect the learners' L1.
2. L2 learners make many errors in areas of grammar that are comparable in both the L1 and L2 – errors that should not be made if 'positive transfer' were operating.
3. L2 learners' judgments of the grammatical correctness of L2 sentences are more related to L2 sentence types than to their own L1 structure.
4. Phonological errors exhibit more L1 influence than do grammatical errors.

(Dulay, Burt & Krashen, 1982, p. 97)

As these findings also suggest, the CA has emerged as a weak predictor of the performance of the learner, lending little explanatory support to the syntactic/grammatical development of learner interlanguage system (Gass, 1987; Sanders, 1981).

The conclusion that can be arrived at, in light of the different explanations on the process of input-intake with regard to language development of second language learners, is that there is a common flow of structure acquisition. This acquisition process and sequence is irrespective of the learners' L1, and also irrespective of the frequency of the input in which the target structure is provided: there is a shared acquisition order or developmental order that the learners go through, stage by stage. However, explanations like input frequency and language transfer have failed to provide a well-developed theory that corresponds with the production of the learners in the target language.

Despite being unable to account for all the commonalties and variations in the interlanguage development of students and how they make use of the input they receive, researchers, like Dulay et al. (1982), claim that there is an organizer in the brain of every person that controls the acquisition process, choosing items to be learned and material that fits into the developing organization of the target language system, and rejecting input which does not match with the existing system. The question is, then, related to the nature of the organizer. Is it something cognitive and intuitive, taking place in the human brain; or, is it something linguistic, referring to some characteristics of the language itself that is being learned?

2.6 Teachability-Learnability

Teachers, in helping students to overcome the obstacles of learning a new language, have tried different methods and approaches so that it would be easier for the learner to master the items under study (Widdowson, 1991; Rivers, 1981; Cargill, 1992). However, not always has this attempt resulted in success. The failure of these approaches and techniques in teaching has guided researchers to the idea that, with some structures or items of a language, whatever you do as the teacher, students only learn it when they are ready for it. This, in turn, has prompted and accelerated the studies on teachability and learnability (Pienemann, 1987; Bardovi-Harlig, 1994; Nunan, 1995).

According to Quintero-Wolfe (1992) “learnability theory is an investigation of the cognitive principles that determine developmental stages and eventual success in language acquisition” (p.39). If we take learnability from the students’ point of view, it is the degree to which an item is appropriate to be learned in terms of the students’ cognitive and developmental readiness. From the teachers’ point of view, “teaching is ineffectual since L2 acquisition can only be promoted when the learner is ready to acquire a given item” (Pienemann, 1989, p. 61). As learning and teaching are interrelated, it is very important to accommodate these two processes to make instruction beneficial (Gagne, cited in Gredler, 1992). Ellis (1994) outlines this relationship in the following words:

The teachability hypothesis predicts that instruction can only promote language acquisition if the interlanguage is close to the point when the structure to be taught is acquired in the natural setting (so that sufficient processing prerequisites are developed.

(p. 634)

Here, *natural setting* refers to the developmental stage at which a learner is ready to acquire the target grammatical structure.

It should not be interpreted that teaching and the efforts put in it are in vain. Rather, it should be noted that while selecting pieces of input and structures of the target language, special attention should be placed on the nature of that structure. Whether or not it is suitable to the learners' current competence is claimed to determine the degree to which the structure would be assimilated into the interlanguage system. The teaching and instruction just accelerates the learning process (Pica, 1992; Pienemann, 1989).

The whole problem, then, is to decide what the appropriate structure for the student's readiness is. Hudson (1993) believes that in language learning motivational factors are important (learners' emotional readiness), but the complexity of the structure also plays an important role which refers to the cognitive readiness of the learner. Taking it a step further, some researchers claim that structure complexity is the most dominant factor determining what is going to become intake.

Starting with Language Universals (see Section 2.7.) and the Markedness Theory in particular, some linguistic explanations have been provided and universally accepted. The reason why a structure is labeled as *complex*, why it is not *teachable* in any stage, is linguistically acknowledged depending on the degree of markedness of that particular structure and the criteria for the degree of markedness that is notified. Such a linguistic explanation relies on the fact that structures of a given language have a markedness degree and this particular degree determines the acquisition order of most structures (Wurzel, 1998).

2.7. Language Universals

The term 'language universals', although referring to the same or similar linguistic characteristics among languages, has had two distinct methodological approaches. Regarding the ways we gain information on linguistic universals, one is associated with the work of Greenberg, which bases its data on a representative sample of the world languages to extract universal patternings; whereas the other, associated

with Chomsky, is less straightforward as the methodology relies on the hypothetical assumption of linguistic innateness with which every child is born (Hyltenstam, 1983).

Because of the reliability of their findings and their relationship to SLA, the Greenbergian approach—which is basically data driven and not theory driven-- is more convincing and relevant to the present study on language universals and specifically 'markedness'. McLaughlin (1987) claims that "there is general agreement among linguists that language universals exist; the question is to what extent different languages are structured according to universal principles" (p.83). Bearing in mind that interlanguages of learners also constitute a language because of their being rule governed and systematic, it is valid to assume and expect interlanguage (in each of its stages) to parallel the findings of linguistic universals.

White (1989) accepts the fact that L2 learners' competence can be represented by a number of internalized grammars. This concurs with the interlanguage hypothesis in that it underlies the assumption that learners approach the L2 in a systematic and rule governed behavior which is accounted for by a series of transitional systems. She further claims that the language learning process, in itself, is constrained by Universal Grammar and Language Universals. This means that the underlying components of a stage of interlanguage shows evidence to, and accords with, the language universals at operation (Thomas, 1991).

The position taken by White (1989) completely focuses on the linguistic side of the process (system-internal factors). Supporting White, McLaughlin (1987) identifies two distinct, but interacting, parts of the language learning process; basically system-external factors (like the input provided) and system-internal factors, which are referred to as the cognitive and linguistic aspect of the process. Language Universals, in relation to language learning, "take that the input alone or the input interacting with non-linguistic cognitive principles cannot account for the ultimate attainment of child and adult language learners" (p. 82). The claim is based on the belief that for the explanation of the acquisition of the formal properties of the language (the grammar), it is essential to assume an innate, and universal, linguistic component.

This means, according to the supporters of Language Universals and their determinant effect on language learning, there are universals for languages; and these universal facts determine the route of the learning process. This is how developmental

sequences are identified, and this is also why every learner goes through them; because they are universal.

These patterns and principles, which are called 'language universals', can be defined and explained in terms of four categories, depending on the nature of the universal (McLaughlin, 1987):

- a) Absolute Universals: These are universals which do not allow exceptions, i.e., hold true for all languages studied or to be studied.
- b) Tendencies: These are universals which allow exceptions; however, they hold true for most languages.
- c) Non-Implicational Universals: These refer to the properties of language that are said to be present or absent in all languages, without reference to another property of the same language. They do not imply any absence-presence relationship between structures or grammatical forms.
- d) Implicational Universals: These relate the existence of one grammatical item to the presence of another item in the same language. That is, if item A is present in a given language, this implies that item B is also present.

These four categories, however, should not be considered in isolation because absolute universals and tendencies interact with non-implicational and implicational universals. For example, that all languages have vowels is an absolute universal and a non-implicational universal at the same time because it holds true for all languages, and it does not imply the existence of any other item. On the other hand, that all languages have nasal consonants is a non-implicational tendency, because it allows for exceptions (like some Sulishan languages), and it does not imply the existence of another item. Similarly, the fact that 'if a language has VSO as its basic word order, it has prepositions' constitutes an absolute implicational universal because there are no exceptions; and the existence of VSO implies the existence of another category: prepositions. However, the statement 'if a language has SOV, it will have postpositions' is an implicational tendency because there are exceptions and there is an implication between two categories (McLaughlin, 1987; Hawkins, 1988).

The category of implicational universals, whether absolute or tendency, has, especially, prompted researchers towards studies on the relationship between, or

sometimes among, items belonging to the same implicational universal. Within this framework, they arrived at *markedness conditions*, which explains the implicational relationship between categories and which is believed to have an impact on the acquisition order of structures, both in the native language as well as the foreign or second language.

2.8. Markedness

Markedness (see Section 1.4.3.) is said to play an important role in language learning. Gair (1988) notes that unmarked elements of the language being learned exhibit a 'first in, last out' order, which he claims to hold true for both first and second language learners. However, without knowing the underlying idea and characteristics behind this markedness issue, it is hard to build a bridge between language learning and the results and findings of studies on markedness.

The notion of the marked-unmarked distinction of a given category was first developed with respect to the phonological system by Nicholas Trubetzkoy, and applied to morpho-syntactic categories by Roman Jakobson. Since then, the markedness value has received a great deal of attention in linguistic studies focusing on grammatical structures and their degrees of markedness (Croft, 1990).

The essential notion behind markedness in typology is fact of asymmetry or unequal grammatical properties of otherwise equal linguistic elements – inflections, words in word classes and even syntactic constructions.

(Croft, 1990, p.78)

Within this definition of markedness, it is important to keep in mind the asymmetry feature, because this is what links markedness as a concept to implicational universals, hierarchies and prototypes in grammatical structures.

2.8.1. Markedness and Morphosyntax

Related to morphosyntax, Croft (1990) summarizes eight criteria identified by Joseph Greenberg in 1966. The properties being looked for in morphosyntax are as follows:

Criterion 1: The surface realization of the unmarked vs. marked value is frequently that of zero vs. non-zero morpheme (more generally, the realization of the marked value will involve at least as many morphemes as the realization of the unmarked value).

Criterion 2: The marked member will display syncretization of its inflectional possibilities with respect to the unmarked member (that is, there will be at least as many

distinct forms in the paradigm with the unmarked value as in the paradigm with the marked value).

Criterion 3: The form that normally refers to the unmarked value will refer to either value in certain contexts ("facultative" use); the "par excellence" use of the unmarked term for the supercategory including the marked and unmarked term.

Criterion 4: In certain grammatical environments, only the unmarked value will appear (contextual neutralization).

Criterion 5: An unmarked form will have at least as many allomorphs or paradigmatic irregularities as the marked form.

Criterion 6: An unmarked form will display at least as great a range of grammatical behavior as that of the marked form (defectivation).

Criterion 7: (Grammatical number only) The plural form of the unmarked gender is used to refer to collections consisting of objects of both genders ("dominance")

Criterion 8: In text counts, the unmarked value will be at least as frequent as the marked value.

(p. 86)

These 8 criteria have been identified to determine the markedness value of a given item. However, these are not explanatory and effective enough to be adapted to syntax. So additional criteria are needed to account for the determination of markedness in syntax: a set of parameters which are not specific to phonology, morphosyntax, or syntax; rather, which are broad and clear enough to account for all linguistic aspects of the language.

2.8.2. General Criteria for Markedness

The first thing to be changed in all of the previously mentioned criterion is the underlying idea that marked and unmarked values are considered 'absolute' properties, which, nowadays, has little support among linguists. Instead, the notion of markedness is now being treated as a relative property; that is, one feature is 'more marked' or 'less marked' than its counterpart or counterparts (as is the case with Implicational Hierarchies). This refers to a continuum, the most marked feature at one end and the least marked one at the other. Consequently, the criterion in operation should highlight the 'degree' of markedness rather than the value of either marked or unmarked.

Croft (1990), again by reviewing Greenberg's early work on linguistic universals, identifies three main types of evidence for the determination of degree of markedness between or among structures or items within the same category. These criteria, to a great extent summarize and explain the previous eight. Croft provides a

kind of modification and simplification of these criteria in a more operational and straightforward way.

1. **STRUCTURE:** This concerns the presence or absence of a feature. For example, plural can be considered more marked than singular because it typically involves the addition of a morpheme.
2. **BEHAVIOR:** This concerns whether one element is grammatically more 'versatile' than another – the more versatile it is, the more unmarked it is. Versatility is evident in both the number of inflections a specific grammatical category possesses (for example, singular 3rd person has three forms in English – 'he,' 'she,' and 'it' – whereas plural third person has only one – 'they') and in the number of syntactic contexts in which a specific grammatical element can occur (for example, more constructions occur with active voice than with passive voice).
3. **FREQUENCY:** The unmarked value is likely to occur with greater frequency than the marked value, both in actual use (i.e., in actual texts) and also in the world's languages.

Obvious from the criterion is that this view of markedness (the Typological Approach) considers markedness to be a relative phenomenon (i.e. one form is more or less marked than the other). This means that certain structures within the same category experience a markedness relationship in that each of the structures differ in their degree of markedness.

2.8.3 Markedness and Language Learning

Having taken these criteria as a basis, several researchers have studied its importance in language learning. With special respect to how input is processed into intake, markedness is said to play a leading role. Since input frequency, as well as the place of L1 within the input-intake process, has ^{failed to explain} lacked explaining the actual interlanguage data, studies have focused on other explanations, of which markedness has gained support. Sharwood-Smith (1985), Beebe (1985), Kandiah (1994) and Zobl (1985) have focused on and highlighted the fact that learners do not process and assimilate every single knowledge within the input data. Just the reverse, learners have the capacity to choose what Beebe (1985) calls "the right stuff." The question is "What

is the right stuff?" Learners have a kind of a system which evaluates incoming data and selects items to be acquired prior to others. Zobl (1985) relates the criteria for this selection of certain items to their degree of markedness. He claims that there are two leading factors in forming the interlanguage grammar: "1) acquisition via markedness implications; and 2) acquisitions via correlations between markedness values of different but related parameters" (p.330).

Guided by this belief, researchers have conducted studies probing the validity of markedness in language learning. Smith (1983) was one of those who has taken this issue from the students' point of view by identifying an *unmarkedness strategy*. She has determined the unmarkedness strategy as being the second out of five initial developmental stages in language learning and has described the way students make use of it:

1. The learner accepts evidence for unmarked structures in the target language.
2. The learner (initially) rejects evidence for marked structures in the target language irrespective of their presence or absence in the first language.

To see whether learners of English as a second language really use the unmarkedness strategy, Chaudron and Parker (1988) designed a study with 40 Japanese learners of English and looked at their noun phrase acquisition development. One of the significant results suggests that the frequency of structurally more marked forms increase with the proficiency level of the subjects. "They use more bare nouns and pronouns at the lower levels, and increase in use of both articles and existential of left-dislocated noun phrases as proficiency level increases" (p. 18). The findings of Chaudron and Parker's study suggest that the unmarkedness strategy is in operation for the acquisition of noun phrases.

Mazurkewich (cited in Rutherford, 1982) has investigated the markedness application in SLA with respect to dative prepositional phrase complements (give NP1 NP2) and double noun phrase (NP) complements (give NP2 NP1). The findings show that the dative prepositional phrase complements are learned and used after the double NP complements because they are more marked; a finding supporting both Smith (1983) and Mazurkewich (cited in Rutherford, 1982).

Clark (cited in Rutherford, 1982) has studied the acquisition of certain prepositions and investigated how markedness might be an important determinant in the

order of their acquisition by L2 learners. He found that prepositions which only bear a semantic feature of location like *at*, *in*, and *on*, are learned easier and earlier as they are less marked. However, prepositions like *to*, *onto*, and *into* are marked as they have the additional feature of location+direction, and so, are acquired later.

Zobl (1985) has studied the two possessive forms of the masculine *his* and feminine *her*. He sets out from the fact that in English these two forms do not have equal distributional privileges; for example, *lion-lioness* or *poet-poetess*. In these forms, both *lion* and *poet* do also cover the feminine equivalent; whereas *lioness* and *poetess* refer only to the feminine party. Thus, he claims "whenever the sex is not known or is irrelevant, it is the masculine form which neutralizes the sex distinction" (p.332). Keeping the input frequency also under control, he conducted a study with low-proficiency French learners of English using a picture elicitation task. The results suggest that the experiment "provides evidence that the matching values interact in intake" (p.338). That is, the markedness value is in accordance with the expected order of acquisition.

In light of the Markedness Theory, Mazurkewich (1988) has suggested that the acquisition order of infinitives and gerunds may be affected by the degree of markedness of these forms. He has set out from the assumption that infinitives and tensed clauses are unmarked, whereas gerunds are marked because they "can only appear if licensed by the strict subcategorization frame of the matrix verb" (p. 129). The findings suggest that the infinitive is really acquired before the gerunds, and; therefore, students exhibit more errors on gerunds because the infinitive is relatively less marked.

In most of the studies cited so far, the concern has been the two extremes of a continuum, marked versus unmarked (for example, gerund versus infinitive). However, as pointed out before, marked-unmarked relationships may exist in the form of a continuum involving not only the extreme ends but also the structures or items in between. On this continuum, there may be an order of several constructions of the same structure which differ in their degree of markedness, and which we call *Implicational Universals*.

2.9. Implicational Universals

As mentioned earlier (see Section 1.4.4.), within language universals there is a distinction between absolute universals and universal tendencies, and a distinction between implicational universals and non-implicational universals (Hawkins, 1988). However, cross-linguistic studies have revealed that we are frequently faced with implicational universals, which can be expressed in the form of 'if/then' statements. This means that the presence of a feature in a language refers to the presence of another feature in the same language, or vice versa. If this statement is two-sided, involving only two features in their conditional relationship, then we are talking about *simple implicational universals* (Ellis, 1994). An example for simple implicational universal is the one provided by Hawkins (1983, cited in Ellis, 1994) who shows evidence to demonstrate that "if a language has a noun before a demonstrative, then it has also a noun before a relative clause" (p. 418).

Not always do only two features interact in such a relationship, but sometimes it is possible to have more than two items, implying each other's presence or absence, still keeping the conditional relationship. In this case, we are talking about *complex implicational universals* (Ellis, 1994). For instance, the statement that if a language has a SOV word order, and if the adjective precedes the noun, the genitive is also supposed to precede the noun. In this case, there are three interrelated grammatical facts operating within the same implicational universal.

These linguistic findings, on their own, seem to have little impact on the learning process of second or foreign language learners. They also seem to have no explanatory input on the development of the interlanguage system with respect to its stages. However, complex implicational universals sometimes take the form of a universal implicational hierarchy, which conveys more than implying another feature.

Implicational hierarchies exhibit two linguistic properties. The first is that they carry the presence/absence relationship within their features. For example, feature A implies the existence of both features B and C. Or, the absence of feature B also implies the absence of feature A. The second property, the one more crucial and relevant to SLA, is that all of these features exist within a markedness relationship, differing in their degree of markedness from each other. Taking the same example from this point of view, if feature A implies the existence of features B and C, feature A is

more marked than both B and C. And if the absence of feature B implies the absence of feature A, then B is less marked than A (Croft, 1990). This chain of relationships can be demonstrated as follows:

$$C < B < A$$

Here ($<$) means 'less marked than' and ($>$) means 'implies the presence of'.

When we refer back to language learning process and the interlanguage development, the markedness relationship of the implicational hierarchy is expected to shed light on structure acquisition order. As White (1989) states "...markedness has been used to make predictions about first and second language acquisition, the usual assumption being that marked properties of language are harder to learn than unmarked and will emerge later" (p. 117). Mazurkewich, in this sense, agrees with White (1989) by claiming that no matter which language (L1 or L2) the learner is engaged in, he will first go through a stage of using the unmarked form. This also predicts that L2 learners will go through the same developmental pattern, no matter their L1.

The most well-known example for implicational hierarchies is the one identified and investigated by Keenan and Comrie: The Noun Phrase Accessibility Hierarchy (NPAH), which demonstrates the relationship between structures in the process of relativization; that is, relative clause with respect to their functions in terms of the relative pronoun. The reason why this hierarchy has attracted the attention of many researchers is that it lends itself to various degrees of markedness and structures which can be studied in relation to each other.

2.10. Relative Clauses

To understand the NPAH better, it is essential to highlight what relative clauses are and what types they exhibit in English. There are two types of Relative Clauses (RCs): Restrictive and Non-Restrictive. Each of these RCs has a different function within sentences. Restrictive RCs aim at "delimiting the potential referents" of a noun; that is, to identify the noun (Comrie, 1981, p. 138). This means that without the RC within the sentence, the noun that is being referred to is not clear. Thus, it can be said that this clause provides the hearer/reader with sufficient information to identify the noun phrase. For example, "The man that I saw yesterday left this morning." In this sentence, *that I saw yesterday* is the relative clause without which the noun –*the man* –

could not be identified. So, restrictive relative clauses, besides forming a grammatical structure, also carry a semantic feature to make a meaningful referent out of a noun (Comrie, 1981).

In non-restrictive relative clauses, on the other hand, it is assumed by the speaker/writer that the receiver is able to identify the noun, even without adding the RC. The RC by itself only serves as a means to give additional information about the noun, not to identify the noun. For example, “Fred, who gave me his car, wanted it back.” The assumption here is that the hearer already knows who Fred is. The function of the relative clause – *who gave me his car* – only provides additional information about somebody who is already identified.

Non-restrictive relative clauses in English require the relative pronouns *who*, *which*, *whom*, and *whose*; and, they are set off from the main clause by a comma (in written) and by intonation (in spoken). The restrictive relative clauses, in addition to *who*, *which*, *whom*, and *whose*, also allow the usage of *that*; and, they are not set off from the main clause, either intonationally or by commas (Comrie, 1981).

Although both restrictive and non-restrictive relative clauses have similar syntactic constructions, there is (as is evident from their explanations and examples also) a semantic or pragmatic difference. The restrictive relative clause uses presupposed information for the identification of the noun, while its counterpart, the non-restrictive relative clause presents new information based on a noun which is already identified.

As this study focuses on restrictive relative clauses only, more detailed information about its definition and types will be reviewed, so that the NPAH within which these clause types operate is put into an operational framework.

2.10.1. Restrictive Relative Clauses

Sadighi (1994), in his study, defines the notion of restrictive relative clauses by, first, highlighting that English is an SVO (has a Subject – Verb – Object word order) language. He says that “the restricting relative clause stands to the right of the head NP called post-nominal relative clauses. An RC variable marker is substituted for the relativized NP in all positions, except for the direct object position which is optionally deleted on the surface” (p. 143).

In English restrictive relative clauses, it is possible to relativize the NP in six positions: Subject, Direct Object, Indirect Object, Oblique, Genitive, and Object of Comparison. *To relativize on a particular noun phrase* refers to the role of the NP in question within the relative clause, not the main clause (McLaughlin, 1987). It is possible to make the above explanation more concrete by exemplifying these NP positions.

1. NP in the position of Subject (S)

The child *who got ill* recovered soon.

that functions as the subject of the clause.

[In subject relativization, the Wh-extraction, in terms of transformational grammar, is made directly from the Inflection Phrase (IP)]

2. NP in the position of Direct Object (DO)

The child *that he hit* recovered soon.

that functions as the direct object of the clause.

[In direct object relativization, the Wh-extraction, in terms of transformational grammar, is made from the Verb Phrase (VP) within the IP]

3. NP in the position of Indirect Object (IO)

The woman *to whom he sent the book* could not receive the parcel.

whom functions as the indirect object of the clause.

[In indirect object relativization, the Wh-extraction, in terms of transformational grammar, is made from the Prepositional Phrase (PP) within the VP within IP]

4. NP in the position of Oblique (O)

The table under *which he put the toys* is in the living room.

which functions as the oblique of the clause.

[In oblique relativization, the Wh-extraction, in terms of transformational grammar, is made from the Prepositional Phrase (PP) within the VP within IP]

5. NP in the position of Genitive (GEN)

I saw the woman *whose child went out*.

whose functions as the genitive of the clause.

[In genitive relativization, the Wh-extraction depends on the function of the NP on which the genitive is formed]

6. NP in the position of the Object of Comparison (OC)

He got the amount less than *which he was expecting*.

which functions as the object of comparison in the clause.

The order in which these six types of relative clauses have been demonstrated is by no means random. As was stated in the section of Implicational Hierarchies (section 1.4.4.), sometimes it is possible to find more than two features or structures within the same hierarchy (Complex Hierarchies), and these features experience a two-sided relationship; implying each other's presence or absence, and implying the degree of markedness evident in each. The functions of the relative clauses also exist within such a kind of hierarchy, which is referred to as the Noun Phrase Accessibility Hierarchy in literature on SLA.

2.10.2. The Noun Phrase Accessibility Hierarchy (NPAH)

The structure of relative clauses lends itself to six different NP functions, basically Subject, Direct Object, Indirect Object, Oblique, Genitive, and Object of Comparison. These six categories, within the relativization process, make up what Keenan and Comrie in 1977 identified and termed as *The Noun Phrase Accessibility Hierarchy*. This hierarchy bases its ranking on Grammatical Relations (GRs) like Subject, and Direct Object. It does not account for the syntactic formation for each of these types. That is, GRs determine the order, not the syntactic realization of the relative clause.

The NPAH, on pure linguistic grounds, implies and predicts what is possible and may exist in natural human languages. The findings on this area show evidence in support of an order within the hierarchy, which is:

S < DO < IO < OBL < GEN < Obj. of COMP

This illustration means “if a language can relativize clauses on a given position on the hierarchy, then it can also form relative clauses on all positions higher (to the left) on the hierarchy; moreover, for each position on the hierarchy, there is some possible language that can relativize on that position and all positions to the left, but no position to the right” (Comrie, 1981, p. 156).

Accordingly, it is possible to find languages which can only form relative clauses on the subject position, and Malagasy forms such an example. This means that in this language, the lower functions (to the right) on the hierarchy are by no means possible. Another example is the language Kinyarwanda, which can only relativize the subject and the direct object, but not the rest. Languages like the Fering dialect of North Frisian allow relativization on the first three categories (Subject, Direct Object, and Indirect Object) but lack relativization of Oblique, Genitive, or Object of Comparison. English and Turkish, on the other hand, are among languages which permit relativization on all of the functions of NP within the NPAH (Comrie, 1981).

To put these findings in another way, if a language allows relativization from the OBL (Oblique) position (like, *Here is the book that you were asking about*), it will, and must, allow the relativization from IO (Indirect Object), DO (Direct Object), and S (Subject) positions. Croteau (1995) states: “an implicational relationship exists through the Hierarchy such that relativization on a lower position implies, for any language, the acceptability of relativization on a higher position, but not vice versa” (p. 112).

This pure linguistic side about the NPAH sheds light on further linguistic analysis, in that it predicts the structure of any possible human language. However, some other kind of relationship among the hierarchy structures is needed to relate these findings to language learning. This relationship is the one that has been referred to as *markedness*.

It has been pointed out that the features in the NPAH are not in random order, but exist in a hierarchy. The linguistic and universal findings of implying the presence or absence of one item are closely related to the degree of markedness that those structures exhibit. The degree of markedness assigned to each category in the NPAH follows the cross-linguistic findings in that the Subject relativization is the least marked while the relativization of the Object of Comparison is the most marked item. This relationship together with examples are illustrated in Table 2.3.

Table 2.3.
The Noun Phrase Accessibility Hierarchy

Subject	(S)	<i>The man who knows the woman</i>
<Direct Object	(DO)	<i>The man that the woman knows</i>
<Indirect Object	(IO)	<i>The man that the woman gave a pencil to</i>
<Oblique	(OBL)	<i>The desk that the woman put the pencil on</i>
<Genitive	(GEN)	<i>The man whose pencil the woman took</i>
<Obj. of Comparison (OC)		<i>The man that the woman is taller than</i>

(here < means *less marked than*)

It is important to note here that the (Accessibility Hierarchy) AH for relative clause formation implies a hierarchy in the degrees of markedness of each feature. It is, then, misleading to assume that the relativization of IO is marked in an absolute sense. The fact is that IO is marked when compared to S, but less marked when compared to OBL and GEN.

Another thing to be mentioned is that the Object of Comparison, although possible linguistically, has been graded by English native speakers as incorrect usage (ungrammatical). Consequently, most studies (like the present one) have not taken this construction into account, both in the data collection and data analysis procedure.

Having highlighted the markedness relationship in operation within the NPAH, we shall now turn back to its application to SLA. How does the fact about the AH affect the development of second language learners' interlanguage? Does the markedness relationship of the items in the hierarchy predict anything in terms of the acquisition order of each category? And, are these predictions universal, as claimed by the language universals? A lot of research on the NPAH, and how it relates to the answers to these questions has been conducted; mostly in support of the hypothesis but sometimes also contradicting with universal findings. Now, an overview of the basic studies in this area will be given and the universality of the NPAH, in terms of language learning, will be discussed.

2.10.3. The NPAH and Language Learning

Linguists and researchers involved in SLA have conducted a number of studies prompted by the NPAH and whether or not it relates to language learning with respect to the markedness element. Gass (1979) took a large number of subjects from different native language backgrounds to find out whether, irrespective of the native language, learners follow a certain routine in the acquisition of relative clauses. Her data collection procedure involved three different tasks: 'Grammatical Judgment Test' where students were asked to state the accuracy or inaccuracy of a given sentence with relative clause; a 'Sentence Combining Task' requiring the students to combine two sets of sentences into one that contains a relative clause; and finally, a 'Free Composition Task' where students produced a composition in a spontaneously written way. There was a high correlation within tasks, all referring to the fact that learners, no matter what their L1 was, followed the constraints and sequence of the NPAH. That is, the subjects had more correct responses to subject relativization than to direct object, and so forth.

The study by Hyltenstam (1983) lends support to the findings of Gass (1979). Hyltenstam, although with a limited data elicitation task, conducted a study on foreign language learners, asking them to identify pictures orally. The relative clause types, after being analyzed according to their NP functions within the clause, were ranked in terms of their accuracy. The results reveal that the students exhibited the same pattern for correctness as suggested by the AH. The findings of this study thus imply that the sequence on the NPAH seems to be an influential factor determining students' rate of accuracy in relative clause formation.

Aarts and Schills (1995) took 96 Dutch learners of English and investigated their production on relative clauses. The data collection procedure involved a Sentence Combining Task with 20 sentences which elicited the different functions of the NPs in the clauses. When analyzed in terms of these functions, it was found and stated that the results confirmed the general findings on the NPAH. As Aarts and Shills put it, "the relativization of NPs functioning as prepositional complements and as possessors produced more errors than the relativization of NPs functioning as subjects and indirect objects" (p. 53).

Eckman (1988) conducted a study with adults of different native language backgrounds, like Spanish, Greek, Persian, and Finnish. The focus of this study was

limited to resumptive pronoun usage only. The aim was to see whether the use of resumptive pronouns correlate with the NPAH in respect to the errors exhibited for each type. The results suggest that, irrespective of their L1 backgrounds, subjects produced resumptive pronouns in this task, and interestingly, the patterns arrived at the end of the study, “corresponded with a high degree of scalability to the Accessibility Hierarchy” (p. 426). Eckman summarizes his study noting: “if the subjects produced relative clauses in the interlanguage with resumptive pronouns in the object of the preposition position, the subjects also produced relative clauses with resumptive pronouns in all positions lower on the hierarchy, but not necessarily higher on the hierarchy” (p. 426). That is, the use of resumptive pronouns in interlanguage accords to a very high degree of accuracy with the NPAH.

Sadighi (1994) took the acquisition of restrictive relative clauses from the comprehension point of view. His subjects consisted of 24 Chinese, 20 Japanese, and 12 Korean learners of English whose ages ranged between 19 and 29. The data collection procedure involved the comprehension of individual sentences which contained relative clauses of different NP functions. Sadighi summarizes his results by pointing out that “based on the results found for Chinese, Japanese and Korean adult native speakers in this study, and the relevant data from other language backgrounds such as Sheldon (1977) L1 English learners, one can conclude that the processing of ERRCs [English Restrictive Relative Clauses] by adult L1 and L2 learners of English was substantially governed by the universal phenomena engaged in the formation of these complex syntactic structure” (p. 147). An additional conclusion to be arrived at from these results is the fact that adult L2 learners, just like L1 learners, have access to linguistic universals while learning a language; a finding consistent with the results of Bley-Vroman et al (1988).

Partly supporting evidence for the NPAH and its operation in SLA is provided by Eckman, Bell, & Nelson (cited in Ellis, 1994) and Jones (cited in Ellis, 1994). Subjects with mixed L1 backgrounds were tested on their accuracy of relative clauses including all the functions on the NPAH. The task was limited to sentence combining. The results suggested that, to a high degree, the subjects followed the NPAH; however, exceptions related to the Genitive were also observed. Thus, the elicited data was not in

accordance with the hierarchy in the function of the genitive, which had lower error rates than expected (violating the sequence hypothesized).

Of special importance is the study by Hamilton (1995). He has carried out his study with 98 learners from different native language backgrounds, such as Japanese, Arabic, Korean, Spanish and Chinese. He required his subjects to combine two sentences into one by using relative clauses. He aimed at finding out whether learners, while forming relative clauses, were more sensitive to grammatical relations (as claimed by the NPAH) or to syntactic configurations of the structures. He found out that the Genitive construction has not exhibited as many errors as expected. Consequently, his findings contradicted the predicted ease of learning by the NPAH. He attributed this result to the fact that Genitive, actually, should not be a part of the hierarchy, rather it should be integrated into Subject, Direct Object or Oblique relativization because it is possible to form the Genitive on all of these structures. He claimed that the genitive nature of the NP was not the dominant factor, rather it was the NP (subject or direct object) on which the Genitive was formed.

2.11. Conclusion

In literature on Second or Foreign Language Acquisition, researchers have oriented themselves towards understanding how interlanguage grammars come into existence, develop, and even achieve native-like properties. In this attempt, they have dealt with the nature or frequency of the input the learners are exposed to, and the native language background of the students. However, studies in both of these areas have shown that results and findings can not thoroughly (sometimes not even partly) explain how, and according to what, input is processed into intake. Why are certain language properties internalized earlier than others? What are the criteria in the selection and preference of these items?

The claims on Language Universals, Markedness, and the Noun Phrase Accessibility Hierarchy have been quite strong with respect to both L1 and L2 acquisition. The hypothesis is that every kind of student (implying L1 background) at any age, and in any instructional circumstance, or input environment, is going to acquire the relativization of Subject, Direct Object, Indirect Object, Oblique, and Genitive in the order predicted by the NPAH. The reason attributed to this hypothesis relies on the

degrees of markedness assigned to each of these structures; the less marked being learned easier and earlier than the more marked ones. Most of the studies cited, either completely or partly, support this claim; however, some do not (Hamilton, 1995).

The present study is going to investigate this hypothesis within an EFL setting with Turkish students learning English at the ages between 17-21. If the results of this study support the NPAH, the hypothesis will gain strength in terms of its universality. However, if it does not, other explanations will be sought depending on the outcome of the results.

CHAPTER 3

METHODOLOGY

3.1. Introduction

This study has been designed as a descriptive, cross-sectional study so that the subjects' current state of interlanguage on relative clauses and the error rates on the five different types of relative pronoun functions could be identified. The main aim in designing this kind of research was, firstly, to identify and describe the subjects' performance on relative clauses, and then relate these findings to the claims about the NPAH in terms of acquisition order in relation to the markedness degree of syntactic items within the same structure.

3.2. Subjects and Setting

The study was conducted at two different faculties of Anadolu University, Eskisehir, Turkey. All the subjects have Turkish as their L1 background and they represent adult Turkish learners of English whose ages are between 17 and 21. The subjects are students enrolled at an intensive English preparatory class of which the class hours range between 24 and 30 hours a week. At the time of data collection, all students were at the end of the first semester. So, they had an instruction of about 11 weeks.

First, the Michigan Placement Test was administered to a total of 207 students, all of which were enrolled either at Anadolu University, Faculty of Education, English Language Teaching Program, or at Anadolu University, School of Civil Aviation. As this study aimed at discussing results in relation to the students' level of English, it was considered appropriate to choose two distinct levels: either beginner and advanced, elementary and intermediate, or lower-intermediate and upper-intermediate. The first (advanced-elementary) was not possible as there were only five students placed at the advanced level and the teachers of the beginner level students pointed out that they might not be able to cover relative clause in their syllabus. The second combination was also not feasible since there were only 17 students placed at elementary level. So the 51 students placed at upper-intermediate and 57 placed at lower-intermediate have formed the subject sample of this study (n=108).

However, in the data collection procedure, while administering the Grammatical Judgment Test, the Sentence Combining Task, and the Translation Task, some of the

students did not complete the tasks as required. So, excluding those from the data, the subject sample of this study consists of 40 lower-intermediate students and 40 upper-intermediate students.

Thus, after having administered the Michigan Placement Test to all the students of the preparatory classes, only those who have ~~fallen~~ into the following proficiency levels and who had completed the tasks as required were ~~been~~ chosen as the subjects for the study (a total of 80 students; $n=80$):

- a) 40 students at lower-intermediate level: their Michigan Placement Score is between 31-45; an average group score of 41.7.
- b) 40 students at upper-intermediate level: their Michigan Placement Score is between 61-75; an average group score of 72.9.

3.3.Instruments

3.3.1. Placement Test

One week before collecting the data, a standard placement test (The Michigan Placement) was administered to determine the levels of the subjects. This Michigan Placement Test has been chosen as it has been used both at the Faculty of Education and The School of Civil Aviation successfully for the past several years; it has also been the proficiency basis for many of the researchers in these institutions (Canturk, 1998; Ipek, 1998). Thus, this test is believed to shed light on the students' current level of English. In determining the levels, the evaluation scale suggested by the Faculty of Education, ELT Department has been used.

The subjects have been given two hours to finish the test which consists of:

- 20 Listening comprehension items,
- 30 Grammar and Structure items,
- 30 Vocabulary items, and
- 20 Reading Comprehension items.

Obvious from the item distribution of the test, it does not cover or evaluate the learners on their speech production, neither does it evaluate their writing as a productive skill. However, these have not been considered as a drawback for this study as the data

collection instruments do not require spontaneous speech or writing; rather the focus is on sentence-level production.

The students have been given scores out of 100, which is the total number of items in the test. The evaluation scale as suggested by the ELT Department is shown in Figure 3.1.

76-100	Advanced
61-75	Upper-Intermediate
46-60	Intermediate
31-45	Lower-Intermediate
16-30	Elementary
0-15	Beginner

Figure 3.1. The Evaluation Scale for the Michigan Placement Test

According to this scale, the distribution of the scores obtained by the students is given in Figure 3.2.

<u>Scores</u>	<u>Levels</u>	<u>n</u>
76-100	Advanced	5
61-75	Upper intermediate	51
46-60	Intermediate	32
31-45	Lower intermediate	57
16-30	Elementary	19
0-15	Beginner	43
TOTAL		207

Figure 3.2. The Distribution of the Michigan Placement Results

3.3.2. Grammaticality Judgment Test

Grammaticality Judgment test can be defined as “the conformity of a sentence, or part of a sentence, to the rules defined by a particular grammar of the language; also called *well-formedness*” (Crystal, 1992, p.36). A grammaticality judgment task was administered because it is one of the best ways of accessing students’ intuition about what they think is grammatically acceptable in the target language that they are learning (Sorace, 1985). This test was partly adapted (from Aarts, 1995; and Hamilton, 1995) and developed according to the five relative clause types under study. It should be noted that the errors integrated into the ungrammatical sentences contain mistakes of various types (for example, resumptive pronoun, relative pronoun misusage). The analysis and discussions will be based on errors, without any reference to the type or difficulty level of the mistakes. In the task, there are four sentences for each relative clause types; i.e., Subject, Direct Object, Indirect Object, Oblique, and Genitive. For each set of sentences, there are two grammatical and two ungrammatical items, thus the task consists altogether of 20 items.

The random distribution of the items in terms of the relative clause types is demonstrated in Table 3.1.

Table 3.1

Distribution of the G.-J. Items in Terms of Pronoun Functions

Function of the Rel. Pronoun	SU	DO	IO	OBL	GEN
Item No	3,7,11,19	4,12,14,18	5,6,15,20	1,8,13,16	2,9,10,17

In items 3, 7, 11, and 19; the relative pronoun functions as the subject in the relative clause.

For example: *I cooked Italian food which actually tasted Indian and*

**The girl who she had disappeared suddenly could not be found.*

In items 4, 12, 14, and 18; the relative pronoun functions as the direct object in the relative clause.

For example : *The book which I am reading now was written by Stephen King.*

** The boss called the secretary who he employed last week.*

In items 5, 6, 15, and 20; the relative pronoun functions as the indirect object in the relative clause.

For example : *I love my girlfriend to whom I bought all the flowers in the city.*

**I saw the bank manager to who I gave my cheque.*

In items 1, 8, 13, and 16; the relative pronoun functions as the oblique in the relative clause.

For example : *This is the diary in which I keep my memories.*

**I found the taxi in whose I forgot my purse.*

And in items 2, 9, 10, and 17, the relative pronoun functions as the genitive (possessor) in the relative clause.

For example : *The woman whose dress was torn got very upset.*

**Jane discussed with the woman whom child had stolen her bag.*

The random distribution of the items in terms of grammaticality and ungrammaticality is demonstrated in Table 3.2.

Table 3.2.

Distribution of the Items in Terms of Grammaticality

	SU	DO	IO	OBL	GEN
Grammatical Items	3, 11	12, 14	5, 6	8, 13	2, 17
Ungrammatical Items	7, 19	4, 18	15, 20	1, 16	9, 10

In the task, items 2, 3, 5, 6, 8, 11, 12, 13, 14 and 17 are grammatical, whereas items 1, 4, 7, 9, 10, 15, 16, 18, 19 and 20 are ungrammatical.

In this task, students were required to judge the sentences either as grammatical (by putting a tick next to the sentence) or ungrammatical (by putting a cross) without indicating why they think it is ungrammatical. The correct judgments for the items were calculated with respect to the relative clause type they represent. At the end, students got raw scores out of four for each of the relative clause levels in the NPAH. The administration of this task lasted about 10 to 15 minutes.

(For the original Grammatical Judgment Test, see Appendix A.)

3.3.3. Sentence Combining Task

The students were given 20 pairs of sentences to be combined with a relative clause. The operations that the students were expected to achieve can be outlined as:

1. Relativization of a particular constituent which is co-referential with a constituent in the first sentence.
2. Movement of the relativized constituent within the second sentence. There are three types of movements:
 - a) vacuous movement. The movement rule applies vacuously when the relativized constituent is the subject of the second sentence.
 - b) short movement. This rule applies when the relativized constituent has a function other than subject in the second sentence and has to be moved to sentence-initial position.
 - c) long-movement. This rule applies when the relativized constituent has to be raised out of a subordinate clause in the second sentence and is moved to sentence-initial position across two clause boundaries.
3. *That*-deletion. When the subject in a subordinate clause is relativized, the subordinator *that* is obligatorily deleted.
4. Insertion of the second sentence into the first sentence. This is the case if the antecedent is not the final constituent of the first sentence.
5. Attachment of the second sentence to the first sentence. This is the case if the antecedent is the final constituent of the first sentence.

There are four sentences for each of the relative clause types under study. The students were expected to combine each pair of sentences in an accurate way. The distribution of the items with respect to the relative clause types they represent is demonstrated in Table 3.3.

Table 3.3

Distribution of the Items in the Sentence Combining Task

	SU	DO	IO	OBL	GEN
Item No	1,8,12,17	6,10,14,18	2,5,11,13	4,9,16,19	3,7,15,20

In items 1, 8, 12, and 17; the relative pronoun functions as the subject in the relative clause.

For example : a) *The man was fired by his boss.*

b) *He had forgotten to pay the salary.*

ANSWER: *The man who had forgotten to pay the salary was fired by his boss.*

In items 6, 10, 14, and 18; the relative pronoun functions as the direct object in the relative clause.

For example : a) *The idea was excellent.*

b) *My father suggested it.*

ANSWER: *The idea which my father suggested was excellent.*

In items 2, 5, 11, and 13; the relative pronoun functions as the indirect object in the relative clause.

For example : a) *I always visit the child.*

b) *I told my life story to the child.*

ANSWER: *I always visit the child to whom I told my life story.*

In items 4, 9, 16, and 19; the relative pronoun functions as the oblique in the relative clause.

For example : a) *I found the bag.*

b) *I had hidden her present in the bag.*

ANSWER: *I found the bag in which I had hidden her present.*

And, in items 3, 7, 15, and 20; the relative pronoun functions as the genitive (possessor) of the relative clause.

For example : a) *I spoke to the manager.*

b) *His hotel is at the seaside in Florida.*

ANSWER: *I spoke to the manager whose hotel is at the seaside in Florida.*

While doing the sentence combining task, no time limitation was given, but the whole task lasted about 25 to 30 minutes. If students had committed any of the

following errors, their sentences were labeled as ungrammatical, and they got a score of one (1). Each correct answer was given a score of zero (0).

- a) Beginning with sentence B rather than sentence A (violating the direction);
- b) The passivization of NP target of relativization. This is a form of avoidance, because it always results in the relativization of the SU (subject), the most easily relativizable NP type;
- c) The omission of the preposition;
- d) The substitution of a different preposition for the target preposition. This involves a change in meaning, in violation of direction;
- e) The use of resumptive pronoun or noun;
- f) A non-relative clause like an adverbial clause using where, when...;
- g) An incomplete response or no response.

(For the original task, see Appendix B.)

3.3.4. Translation Task

The students were given 20 Turkish sentences containing a relative clause. This task was used because it requires the learner to incorporate different skills. This task necessitates comprehending the relative clause in Turkish, and producing the same meaning and structure equivalent to English.

There are four sentences for each of the relative clause types in the NPAH. The random distribution of the items, with respect to the function of the relative pronoun in the relative clause, is indicated in Table 3.4.

Table 3.4.

Distribution of the Items in the Translation Task

	SU	DO	IO	OBL	GEN
Item No	1,4,15,18	7,9,10,14	2,8,13,17	5,6,12,19	3,11,16,20

In items 1, 4, 15, and 18; the relative pronoun functions as the subject in the relative clause.

For example : *Bu yaz emekliye ayrılacak olan arkadaşım İzmir'e taşınacak.*

ANSWER: *My friend who is going to retire this summer will move to Izmir.*

In items 7, 9, 10, and 14; the relative pronoun functions as the direct object in the relative clause.

For example : *Onun satın aldığı arabayı gördüm.*

ANSWER: *I saw the car which he bought.*

In items 2, 8, 13, and 17; the relative pronoun functions as the indirect object in the relative clause.

For example : *Doktor, yanlış ilaç verdiği hastasını ziyaret etti.*

ANSWER: *The doctor visited the patient to whom he had prescribed wrong medicine.*

In items 5, 6, 12, and 19; the relative pronoun functions as the oblique in the relative clause.

For example : *O, hakkında kitap yazılan ünlü bir politikacıdır.*

ANSWER: *He is a famous politician about whom a book was written.*

And in items 3, 11, 16, and 20; the relative pronoun functions as the genitive (possessor) in the relative clause.

For example : *Saçını kestiğim müşteri parasını vermeyi unuttu.*

ANSWER: *The customer whose hair I cut forgot to pay.*

(For the original task, see Appendix C.)

The students were asked to translate the given sentences into English by using a relative clause. The administrators of the test were given the flexibility to tell the students the English equivalents of the words that they did not know, because, as the focus was on syntax, vocabulary was not tested or taken into consideration. So, both the students and the teachers were informed about the freedom of asking and providing vocabulary. There was no time limitation set; however, the whole task lasted for about 25 to 30 minutes.

While evaluating the translation task, the guidelines for sentence-combining evaluation were used. That is, when the student had committed any of the errors outlined in Part 3, his/her translation was considered erroneous, and he/she got a score of 1. If no mistakes were detected, the score given was 0.

In this study, three instruments were used for the collection of the data. Each of these tasks elicits knowledge of relative clauses at a different level. Grammaticality Judgment Test was used to test students' intuition. Thus, this task requires knowledge at the recognition level. Two production based elicitation tasks were preferred to make the subjects produce data that was being investigated, which, in naturally occurring data, might not always be possible (Nunan, 1986). The Sentence Combining part is a productive task as it requires the learners to form their own sentences; however, the two sentences to be combined are given in the target language. The Translation Task also requires production, but this time, the students have to create their own English sentences depending on the given Turkish version. So, it can be said that these three tasks are different in nature and the difficulty level although they elicit the same structures. The variety of the tasks in collecting the data is expected to account for the reliability of findings and results (Turan, 1998).

3.4. Pilot Study

The Grammatical Judgment Test, Sentence Combining Task and Translation Tasks were given to similar groups before the study in order to test the reliability and validity of the instruments to be used. According to the results of the pilot study, some items in the instruments were either changed or excluded from the instrument. To account for the reliability and validity of the tests, necessary procedures were carried out. The subjects used in the pilot study, and the procedures which were carried out, are outlined in this section.

3.4.1. Subjects and Setting

The three tasks (Grammatical Judgment, Sentence Combining and Translation) were administered to 23 learners (10 from the Faculty of Education, ELT Department, and 13 from the School of Civil Aviation). The proficiency levels of these students reflected the same proficiency level of the subjects (12 upper-intermediate and 11 lower-intermediate students); however, they were first year students and not preparatory class students. So, it can be said that the sample of the pilot study was similar to the subject sample of the study. The results of the pilot study in terms of test validity were then calculated.

3.4.2. Validity

Validity is simply defined as the degree to which one has measured what one really wanted to measure (Johnson, 1992; Nunan, 1992). Thus the validity of a test or data collection instrument shows the degree to which it measures or elicits the target structure under study.

To account for the content validity of the tasks used in this study, a panel of non-native experts, comprised of five teachers at the Faculty of Education, ELT Department, were asked for feedback. The experts were given the three instruments; their opinion on what it measures and requires on the side of the students was taken. Upon their feedback, the instruments were either rearranged or changed until there was an agreement that the items in each of the tasks are appropriate for the aim of the study. Their feedback on the instructions given in the tasks was also considered to avoid possible problems during the data collection procedure. Some of the changes upon this feedback is given below:

1. Feedback on items:

“My brother whom I gave my bag did not return it”

This sentence was found ambiguous because it was stated that it was not clear whether this is a restrictive or non-restrictive relative clause. It was mentioned that if the person has only one brother, it would be non-restrictive, so this item was changed.

2. Feedback on instruction:

In the task instruction concerning sentence combining, it was noticed that there was one pronoun missing (the pronoun *whom*), so this was added into the instruction to avoid errors induced by the researcher herself.

3.4.3. Reliability

The reliability of a test refers to the stability and consistency of the results obtained from the test (Brown, 1988). This means that the same test given to the same people again should be consistent enough to bring about the same, or very close, results.

For the reliability of the instruments, the 23 subjects of the pilot study were given the three tasks in the order they would be given later to the actual subject sample. After two weeks, the same tests were given in the same order again. Thus using the test re-test technique, the reliability of these tasks was calculated. The results suggest that the reliability coefficient (r_{xx}) is 0.79 for the Grammatical Judgment Test, 0.82 for the Sentence Combining Task, and 0.84 for the Translation Task. As all values are over 0.70 (Nunan, 1992), it can be said that these tasks have a satisfactory level of internal reliability and can be used in the actual data collection procedure.

3.5. Data Collection Procedure

The data collection procedure for this study consists of basically two phases:

Phase 1: The Michigan Placement Test was administered to a large number of students (217) at Anadolu University, ELT Department, and The School of Civil Aviation. According to the results of this test, the students who were labeled as lower-intermediate and upper-intermediate were selected as the actual subjects of the study. Thus, 40 students from each level (altogether 80) have participated in phase 2.

Phase 2: To account for consistency and validity of the data, all subjects were given the Grammaticality Judgment Test, Sentence Combining Task, and Translation Task two weeks after they had been instructed in relative clauses. All tasks were given on the same day, but at intervals. Before the administration of the instruments, all students were informed that this data collection was done for a study and would not affect any of their grades. As different teachers gave the tests, the researcher herself went into each of the classrooms and made the same explanation. The students were not given any time limitation in any of the tasks; however, in most of the classes, the whole procedure lasted about 70 to 80 minutes. First, the Translation Task was administered. The second task was Sentence Combining. Grammaticality Judgment test was given as the last one. This order was followed so that students did not get distracted by the ungrammatical sentences they had seen in the Grammaticality Judgment Test.

The analysis for each of these tasks was done three times by the researcher, herself, to account for intrarater reliability (at one month intervals). These three analysis results indicated that the scoring did not change. After the final evaluation, the three tasks were given to another rater (a non-native English teacher). The results of both raters was then compared. Some problems in the scoring of the translation task and sentence combining task arose, which were eliminated through negotiation and reference to the criteria for evaluation. Thus, conformity in interrater reliability was arrived at. The results of these three tasks in the second phase have formed the actual database for this study.

3.6. Analytical Procedures

After having administered the Grammatical Judgment Test, Sentence Combining Task, and Translation Task, every item in each of the tasks was evaluated in terms of correct or wrong. As the focus of this study is directed towards the error rates, each correct answer received a score of (0) and each incorrect answer received a score of (1). At the end of this procedure, two sets of scores were obtained.

- 1) Lower-Intermediate Group:
 - a) Error rates on the Grammatical Judgment Test
 - b) Error rates on the Sentence Combining Task
 - c) Error rates on the Translation Task
- 2) Upper-Intermediate Group:
 - a) Error rates on the Grammatical Judgment Test
 - b) Error rates on the Sentence Combining Task
 - c) Error rates on the Translation Task

These scores were then grouped according to the relative clause functions in NPAH. At the end of this procedure, the subjects had again two sets of scores:

- 1) Lower-Intermediate Group:
 - a) The frequency distribution of the errors on the Grammatical Judgment Test in terms of Subject, Direct Object, Indirect Object, Oblique, and Genitive relativization.

- b) The frequency distribution of the errors on the Sentence Combining Task in terms of Subject, Direct Object, Indirect Object, Oblique, and Genitive relativization.
 - c) The frequency distribution of the errors on the Translation Task in terms of Subject, Direct Object, Indirect Object, Oblique, and Genitive relativization.
- 2) Upper-Intermediate Group:
- a) The frequency distribution of the errors on the Grammatical Judgment Test in terms of Subject, Direct Object, Indirect Object, Oblique, and Genitive relativization.
 - b) The frequency distribution of the errors on the Sentence Combining Task in terms of Subject, Direct Object, Indirect Object, Oblique, and Genitive relativization.
 - c) The frequency distribution of the errors on the Translation Task in terms of Subject, Direct Object, Indirect Object, Oblique, and Genitive relativization.

After these distributions were obtained, in-group comparisons and comparisons between groups were made. Additional frequency distributions and error ratios were calculated to explore whether there is a difference in terms of the tasks the students were exposed to. Finally, by looking at the error frequencies and rates exhibited by the students, a relative clause acquisition order for Turkish learners of English was arrived at.

CHAPTER 4

DATA ANALYSIS AND DISCUSSIONS

4.1. Introduction

This study was aimed at probing the universality of the NPAH suggested by Keenan and Comrie in 1977 by investigating its application to foreign language learning. It also aimed at finding the order of acquisition of relative clauses by Turkish learners of English, if they are not in accordance with the NPAH. That is, do the errors increase from the unmarked end of the continuum towards the marked end, as given in the AH?

The research questions prompting this study were:

1. Do adult Turkish learners of English follow the NPAH while acquiring Restrictive Relative Clauses (RRCs)?
 - a) Do lower-intermediate learners follow the NPAH while acquiring RRCs?
 - b) Do upper-intermediate learners follow the NPAH while acquiring RRCs?
2. If learners do not follow the NPAH, what is the order of acquisition in RRCs for Turkish adult learners of English?
 - a) What is the order for lower-intermediate learners?
 - b) What is the order for upper-intermediate learners?

The types of relative clauses included Subject (S), Direct Object (DO), Indirect Object (IO), Oblique (OBL), and Genitive (GEN) relativizations. The relativization of the Object of Comparison was not included in the study as it was judged ungrammatical by most of the native speakers of English in previous studies.

The subject sample consisted of two groups (lower-intermediate and upper-intermediate) each of which was comprised of 40 students: a total of 80 learners. The data collection procedure involved three different instruments; namely, Grammatical Judgment Test (G-J), Sentence Combining Task (S-C), and Translation Task (Tr.). The data was collected two weeks after the students had been instructed on the target structures.

4.2. Scoring

In studies related to acquisition order, it is usually assumed that the number of errors plays an important role in determining what is acquired prior or later. That is why, in this study, every error has been counted and received a score of (1), whereas correct answers received (0). The analysis and discussions are all based on error ratios and frequency distributions.

In the three different data collection instruments, there were four items for each of the RC types. As Figure 4.1. also shows, every type was elicited by a total of 12 items.

Task	S	DO	IO	OBL	GEN
G-J	4	4	4	4	4
S-C	4	4	4	4	4
Tr.	4	4	4	4	4
TOTAL	12	12	12	12	12

Figure 4.1. Possible Number of Errors in Each Task

With respect to the instruments, the maximum possible error for each student was 4, a total maximum score of 12 when all instrument results are considered. In group analysis, as the number of students is 40 ($n=40$) in both groups, the maximum possible error score was 160 ($n \times 4$) for every relative clause type. In total evaluations, the subject number was 80 ($n=80$), and thus the maximum possible error score was 320 ($n \times 4$).

4.3. Analysis and Discussion of the Data

The analysis and discussion of the data has been done from three different perspectives. First, the group results have been analyzed and discussed focusing on group total error rates for each group. The second analysis concerns total group results in terms of the three different data collection instruments. The third analysis has been done with respect to each individual student in the two different groups.

In each of the groups, the errors in terms of the RC types they represent have been counted and their frequency distributions have been calculated. Dulay, Burt, and Krashen (1982) have suggested that, in acquisition order studies, 80% of correct responses are enough for a structure to be labeled as "learned." However, in this study, as the maximum possible answer is 12, 80% corresponds to 9.6 correct responses. To account for the feasibility of calculations, in this study 9 correct responses have been labeled as "learned." Thus, if we think in terms of error rates and error numbers, the labeling has been done as outlined in Figure 4.2.

number of errors	0	1	2	3	4	5	6	7	8	9	10	11	12
rate of errors	0%			25%			75%			100%			

Figure 4.2. The Guideline for Acquisition Order

If students have exhibited errors between 0-3, or in total calculations a rate between 0-25%, they have been assumed as having mastered that structure. If the students have exhibited errors 9 or above, or in total calculations more than 75%, they have been assumed as not having mastered the structure. Any values in between have been labeled as 'in the process of learning' depending on their deviation from the cut off values.

4.3.1. Overall Group Results

4.3.1.1. Lower-Intermediate Total Group Results and Discussion

To get an idea of the error rates of the subjects (n=40), the results of all three instruments have been calculated and the error percentages found. Table 4.1. demonstrates the results for the lower-intermediate group. (For a detailed analysis, see Appendix D).

Table 4.1.
Lower-Intermediate Group Error Frequencies

TASK	S		D0		IO		OBL		GEN	
	f	%	f	%	f	%	F	%	f	%
G-J	35	21.87	49	30.62	66	41.25	67	41.88	48	30.00
S-C	58	36.25	101	63.12	142	88.75	148	92.50	55	34.38
TR.	71	44.37	69	43.13	157	98.12	156	97.50	111	69.37
TOTAL	164	34.17	219	45.62	365	76.04	371	77.29	214	44.58

As can be seen in Table 4.1, lower-intermediate learners have exhibited the least number of errors in Subject relativization (34.17%) followed by Genitive (44.58%), Direct Object (45.62%), Indirect Object (76.04%) and Oblique (77.29%). The percentages reveal that Subject, Genitive and Direct Object display similar rates whereas, starting with Indirect Object (including the Oblique), the percentages rise up to 76.04% (a difference of 30.42% when compared to Direct Object).

Looking at the total error scores and percentages, it is easy to conclude that lower-intermediate students' error rates do not go in accordance with the rising markedness degree of the structures within the NPAH framework. The order reflected by this group is demonstrated in Figure 4.3.

S < [GEN < DO] < [IO < OBL]

Figure 4.3. Exhibited Order in Terms of Total Error Rates (Lower-intermediate)

When we compare this order with the NPAH (S<DO<IO<OBL<GEN), Genitive relativization seems to violate the order by changing its place from the end to a place between Subject and Direct Object. It is interesting to note that the Genitive and Direct Object, and Indirect Object and Oblique are quite close in error rates; a difference of only 1.04% and 1.25% respectively. A finding suggesting that, even though following an order, the error rates are almost equal.

It can be suggested that, in light of these error rates, lower-intermediate students do not follow the NPAH while learning relative clauses. The place of the Genitive seems to be the construction that violates the suggested order in NPAH. This, in turn, implies that students do not find Genitive relativization as hard as claimed by its markedness degree. Lower-intermediate students have placed Genitive between Subject and Direct Object, suggesting a lower level of difficulty for learning than expected.

Important to highlight is the fact that, depending on total error rates, none of the relative clause types seem to be fully mastered by the students, as all of them exceed the error rate of 25%. This means, including Subject relativization, students have problems in relative clauses. However, it may be assumed that the Subject relativization is most likely to be the first item for intake, as its error rate is relatively lower than the other constructions.

4.3.1.2. Upper-Intermediate Total Group Results and Discussion

Upper-intermediate group (n=40) results have also been calculated by including the results of all three instruments. Keeping in mind that every structure has been tested with 12 items, the total scores reflect the ratio of errors of 480 tokens (n x 12). Table 4.2. illustrates the findings for the upper-intermediate group. (For a detailed analysis, see Appendix E).

Table 4.2.

Upper-intermediate Group Error Frequencies

TASK	S		DO		IO		OBL		GEN	
	f	%	f	%	f	%	f	%	f	%
G-J	12	7.50	28	17.50	50	31.25	52	32.50	15	9.38
S-C	14	8.75	45	28.13	93	58.12	94	58.75	8	5.00
TR	8	5.00	13	8.12	114	71.25	116	72.50	60	37.50
TOTAL	34	7.08	86	17.91	257	53.54	262	54.58	83	17.29

Upper-intermediate students have exhibited the least number of errors in Subject relativization (7.08%), followed by Genitive (17.29%), Direct Object (17.91%), Indirect Object (53.54%), and Oblique (54.58%). The results show that Subject relativization has a significantly lower error rate when compared to the others. However, the percentages of Genitive and Direct Object, as well as Indirect Object and Oblique, are quite close to each other; a difference of 0.62% and 1.04%, respectively.

In light of total error rates, it can be said that upper-intermediate students' order in learning relative clauses differs from the order in the NPAH. The order exhibited by this group can be seen in Figure 4.4.

$$S < [GEN < DO] < [IO < OBL]$$

Figure 4.4. Exhibited Order in Terms of Total Error Rates (Upper-intermediate)

When this order is compared to the NPAH, Genitive comes out as the type which violates the order; an order which otherwise would follow the NPAH. The Genitive has been placed between the Subject and Direct Object by upper-intermediate students, which means that this group finds Genitive relativization easier than expected.

When we reconsider the error rates in terms of the RC types they elicit, certain structures seem to be "mastered" as their rate of errors falls below 25%. Subject relativization, with a very low rate of 7.08% of errors, can be claimed as having entered students' interlanguage system and internalized. Genitive and Direct Object, although with higher error rates, are within 25%; 17.29 and 17.91 respectively. These structures

can be said to have been mastered, too; but when compared to Subject relativization, there are still some problems. However, Indirect Object and Oblique show error rates over 25%, actually higher than 50%, which may mean that students are still in the course of internalizing these structures, but have not mastered them yet.

4.3.1.3. Comparing Total Group Results

The group analysis has revealed that both groups follow an order other than the one suggested by the NPAH. Table 4.3. illustrates the total scores of both groups. (For lower-intermediate group, see Appendix F; for upper-intermediate group, see Appendix G).

Table 4.3.

Total Error Rates of Lower- and Upper-intermediate Groups

Group	SUBJECT		DIR. OBJ.		IND. OBJ.		OBLIQUE		GENITIVE	
	f	%	f	%	F	%	f	%	f	%
LOWER-INT.	164	34.17	219	45.62	365	76.04	371	77.29	214	44.58
UPPER INT.	34	7.08	86	17.91	257	53.54	262	54.58	83	17.29

As displayed in Table 4.3., the lower-intermediate group has exhibited a higher rate of errors than the upper-intermediate group; a finding which was expected because of the different levels of the students. However, although the rate of errors between groups differs significantly (for S, 34.17% vs. 7.08%; for DO, 45.62% vs. 17.91%; for IO, 76.04% vs. 53.54%; for OBL, 77.29% vs. 54.58%; and for GEN, 44.58% vs. 17.29%), the order of the structures seems to be the same. Figure 4.5. demonstrates the order, together with the error rates of both groups.

	S		GEN		DO		IO		OBL
Lower Group	34.15	<	44.58	<	45.62	<	76.04	<	77.29
Upper Group	7.08	<	17.29	<	17.91	<	53.54	<	54.58

Figure 4.5. Exhibited Order and Corresponding Error Rates for Both Groups

Interestingly enough, in both groups, Genitive violates the order when compared to the NPAH by placing itself between the Subject and Direct Object. Another interesting finding is that in both groups Genitive and Direct Object, and Indirect Object and Oblique are very close to each other whereas Subject relativization, in both groups, is significantly lower than all other types. In the lower group, the difference between Genitive and Direct Object is 1.04%, which is 0.62% in the upper group. The difference between Indirect Object and Oblique is 1.25% for the lower and 1.04% for the upper group. This suggests that both Genitive and Direct Object, as well as Indirect Object and Oblique, are learned almost simultaneously, rather than at highly distinct time spans.

Another point is that in both groups, there is a significant increase in error rates between Direct Object and Indirect Object. For the lower group, this difference is 30.42%, which is 35.63% for the upper group: a finding that suggests high difference of the complexity and ease of the structures as reflected by students' errors.

Putting these findings in a different kind of formula, it may, then, be suggested (considering the results of both groups) that the learning order goes as follows:

$$S < [\text{GEN}, \text{DO}] < [\text{IO}, \text{OBL}]$$

Figure 4.6. Suggested Hierarchy for Both Groups

This means that Subject relativization, in both groups, is learned prior to all other RC types. However, the Genitive, together with the Direct Object construction, is learned at almost the same time and with similar accuracy. This is followed, distinct from Genitive and Direct Object, by Indirect Object and Oblique constructions. Again, the Indirect Object, together with the Oblique relativization, is learned almost simultaneously with close error rates.

Even though the total rate of errors for each group has borne out a common order, as shown in Figure 4.6., it is also essential to look at the data from the tasks' perspective to see whether the individual task results accord with this order.

4.3.2. Group Results in Terms of Tasks

In this study, three different instruments have been used to arrive at reliable data for each of the five relative clause types under study. The aim was to see whether students are consistent in their performance on each of these tasks. Although the reliability and validity of these tasks has been accounted for (see Section 3.4.), it is sometimes possible that the results are due to the dominance of one task, but not confirmed by another or all others. That is why, for each of the tasks, the data is analyzed and discussed comparing both groups.

4.3.2.1. Results and Discussion of Grammaticality Judgment Test

In the Grammaticality Judgment Test, there were 20 items, four of each elicited either Subject, Direct Object, Indirect Object, Oblique, or Genitive relativization. The number of subjects being 40 ($n=40$) for each group, the percentages have been calculated out of 160 responses ($n \times 4$) for each type. The total has been calculated out of 320 responses ($n=80$). (For the detailed analysis, see Appendix H). The results are displayed in Table 4.4.

Table 4.4.
Group Results for Grammaticality Judgment Test

Group	SUBJECT		DIR. OBJ.		IND. OBJ.		OBLIQUE		GENITIVE	
	f	%	f	%	f	%	f	%	f	%
LOWER-INT.	35	21.87	49	30.62	66	41.25	67	41.88	48	30.00
UPPER INT.	12	7.50	28	17.50	50	31.25	52	32.50	15	9.38
TOTAL	47	14.68	77	24.06	116	36.25	119	37.18	63	19.68

When we look at the results of the lower-intermediate group, it can be seen that Subject relativization has exhibited the least number of errors (21.87%) followed by Genitive (30.00%), Direct Object (30.62%), Indirect Object (41.25%), and Oblique (41.88%). The upper group, again starts with Subject (7.50%) followed by Genitive (9.38%), Direct Object (17.50%), Indirect Object (31.25%) and Oblique (32.50%). In

total calculations, the RC types occur in the same order: Subject (14.68%), Genitive (19.68%), Direct Object (24.06%), Indirect Object (36.25%) and Oblique (37.18%).

The results of the Grammatical Judgment Test bear out a common order for both groups, which is demonstrated in Figure 4.7.

$$S < GEN < DO < IO < OBL$$

Figure 4.7. Order as Suggested by the Grammaticality Judgment Test

The total error rates (including all three task results) had suggested the same order with the Grammatical Judgment Test; however, the slight difference between Genitive and Direct Object is not quite evident as far as the results of this test are concerned. For example, in both groups, Subject has come closer to the Genitive, which was not the case with total error rates. Similarly, the difference between Direct Object and Indirect Object decreased down to about 10% in total scores for Grammatical Judgment. Except for the lower group, the slight difference between Genitive and Direct Object has increased up to 4.38%. The small difference between Indirect Object and Oblique has stayed the same, exhibiting a difference of only 0.63% for the lower, 1.25% for the upper, and 0.93% for total group results.

To conclude, although in terms of Grammatical Judgment Test results, the students in both groups accord with the order that has been arrived at previously (S<GEN<DO<IO<OBL). There are minor differences regarding the error percentages in relation to each other. Thus, the assumption that Direct Object and Genitive might be learned simultaneously can not be derived from these results, but the claim that Indirect Object and Oblique go together is confirmed with Grammatical Judgment Test.

4.3.2.2. Results and Discussion of Sentence Combining Task

In the Sentence Combining Task, there were 20 items, four for each of the relative clause types. As the number of subjects is 40 (n=40), every relative clause type has a database of 160 tokens. The total results have been calculated as n=80 and number of tokens=320. (For a more detailed analysis of the results, see Appendix I). The results are shown in Table 4.5.

Table 4.5.
Group Results for Sentence Combining Task

Group	SUBJECT		DIR. OBJ.		IND. OBJ.		OBLIQUE		GENITIVE	
	f	%	f	%	f	%	f	%	f	%
LOWER-INT.	58	36.25	101	63.12	142	88.75	148	92.50	55	34.38
UPPER INT.	14	8.75	45	28.13	93	58.12	94	58.75	8	5.00
TOTAL	72	22.50	146	45.62	235	73.43	242	75.62	63	19.68

Looking at the error rates of the lower group, we can see that the Genitive has the lowest rate with 34.38%, followed by Subject (36.25%), Direct Object (63.12%), Indirect Object (88.75%), and Oblique (92.50%). For the upper group, the ranking starts with Genitive again (5.00%), followed by Subject (8.75%), Direct Object (28.13%), Indirect Object (58.12%), and Oblique (58.75%). In total results, the same order is evident, starting with Genitive (19.68%), followed by Subject (22.50%), Direct Object (45.62%), Indirect Object (73.43%), and Oblique (75.62%)

Based on the results of the Sentence Combining Task, both groups of students seem to go through the same order, which is different from the one arrived at with total error rates (including all tasks) or the one implied by the results of the Grammatical Judgment Test. The order has been illustrated in Figure 4.8.

GEN < S < DO < [IO < OBL]

Figure 4.8. Order as Suggested by the Sentence Combining Task

The results of the Sentence Combining Task in terms of the order it refers to deviates from the ones found previously; it also deviates from the order in the NPAH. According to this task, students in both groups seem to have started with the Genitive, then following the hierarchy as suggested by NPAH (S<DO<IO<OBL). It is interesting, however, that again it is the Genitive construction that violates the order by changing its place from the end to the very beginning of the hierarchy. These results do also not support the assumption of Genitive and Direct Object being learned simultaneously as the difference in error rates has risen up to almost 25%. However,

there is support for the same case with Indirect Object and Oblique, a difference of only 2.19% in total error rates.

4.3.2.3 Results and Discussion of Translation Task

The Translation Task consisted of a total of 20 items, four for each of the relative clause types. The number of subjects is 40 ($n=40$) in each group and the total token number for each of the types is thus 160. The total percentages and numbers including both group subjects have been calculated out of 320. (For a detailed analysis and responses to each of the items, see Appendix J). Table 4.6. demonstrates the results of the Translation Task.

Table 4.6.
Group Results for Translation Task

Group	SUBJECT		DIR. OBJ.		IND. OBJ.		OBLIQUE		GENITIVE	
	f	%	f	%	f	%	f	%	f	%
LOWER-INT.	71	44.37	69	43.13	157	98.12	156	97.50	111	69.37
UPPER INT.	8	5.00	13	8.12	114	71.25	116	72.50	60	37.50
TOTAL	79	24.68	82	25.62	271	84.68	272	85.00	171	53.43

The lower group students' error rates show that in this group, Direct Object relativization has experienced the least errors with 43.13%, followed by Subject (44.37%), Genitive (69.37%), Oblique (97.50%), and Indirect Object (98.12%). The upper group, in the same task, starts with the Subject (5.00%), followed by Direct Object (8.12%), Genitive (37.50%), Indirect Object (71.25%) and Oblique (72.50%). The total distribution of the sum of the two groups' error rates goes as follows: Subject (24.68%), followed by Direct Object (25.62%), Genitive (53.43%), Indirect Object (84.68%), and Oblique (85.00%).

According to these results, two different orders come out:

Lower-intermediate	DO	S	GEN	OBL	IO
Upper-intermediate	S	DO	GEN	IO	OBL
Total	S	DO	GEN	IO	OBL

Figure 4.9. Order as Suggested by Translation Task Results

The results of this task, as evident in Figure 4.9., refers to two different orders when compared between groups. With the lower group, Direct Object, Genitive and Oblique seem to have changed places (when the NPAH is taken as basis), Direct Object being the first construction of the order. However, when we look back at the error rates of Direct Object and Subject, it is only 1.24% of errors which causes a change in the ordering, not a significant percentage to determine the whole order for this group. The same holds true for the change in places of the Oblique and Indirect Object; a difference of only 0.62% is exhibited.

In the upper group, the Genitive construction is the only one that seems to be at a different place when compared to the NPAH. It has found a place between the Direct Object and Indirect Object. If we look at the order arrived at by the total scores of this task, we can see that the upper group's order has been dominant. It starts with the Subject, followed by Direct Object, Genitive, Indirect Object and then Oblique. This dominance may be due to the fact that the difference observed between Direct Object and Subject, and Oblique and Indirect Object in the lower group is very slight. Consequently, this small difference has been eliminated and suppressed in total scores.

The idea that the Direct Object and Genitive might be learned at almost the same rates has not been supported by either of the groups. The difference is 26.24% for the lower group and 29.38% for the upper group. However, the same assumption for Indirect Object and Oblique find support. The differences for the lower group and upper group are 0.62% and 1.24% respectively.

4.3.2.4 Evaluation of All Three Task Results

The analysis of the three tasks has borne out consistent as well as contradicting results. In general terms, what is most evident is the gradual increasing number and rate of errors; starting with the Grammatical Judgment (a total of 265 errors for the lower and 157 for the upper group), followed by Sentence Combining (504 for lower and 254 for the upper group), and Translation (564 for the lower, and 311 for the upper group). A finding which was expected because of the increasing difficulty levels of the tasks that the students were required to fulfill.

Even though the rate of errors differs, there are certain aspects which have remained the same throughout all three tasks. These can be summarized as follows:

1. Considering total scores, the students at both levels (except the lower group in Translation Task) follow a common order, even though this order is different for each of the tasks.
 - a) $S < GEN < DO < IO < OBL$ (Grammatical Judgment)
 - b) $GEN < S < DO < IO < OBL$ (Sentence Combining)
 - c) $S < DO < GEN < IO < OBL$ (Translation)

In all of these three patterns, Genitive comes out as the construction which changes the order that otherwise would be consistent for all tasks, and also corresponds to the order in the NPAH. If the Genitive is excluded from all of these orders (as suggested by Hamilton, 1995), we are left with a common hierarchy that goes as:

- d) $S < DO < IO < OBL$

The situation of the Genitive and how it violates the NPAH is to be discussed later in this chapter. For now, it is important to highlight that it plays a crucial role in the overall organization and pattern involved in learning relative clauses by both groups of students under study.

2. In all of the groups and in each of the tasks, the difference in error rates between the Indirect Object and Oblique is minimum, mostly below 1%. This brings about the question whether Turkish learners, while acquiring relative clauses, master these two constructions with similar accuracy at almost the same time. If markedness plays a role in transforming input into intake, do these constructions experience a high difference in their degree of markedness, or are they samples of close markedness values?

3. In all three tasks, the lower group can be said to have mastered none of the constructions of relative clauses (it seems that the Subject is learned in Grammatical Judgment Test; however, the percentage of errors is quite close to 25%, it is 21.87%). This means that, although Subject relativization is most likely to be internalized at the first stage, lower-intermediate students are still at the beginning of the whole hierarchy.

The upper group seems to have acquired Subject relativization thoroughly as evident in all three tasks (in Grammatical Judgment, 7.50%; in Sentence Combining, 8.75%; and in Translation 5.00%). All rates are quite low and under 25%. In two of the tasks, Direct Object relativization has also experienced error rates below 25% (in Grammatical Judgment, 17.50%; in Translation, 8.12%), which may mean that the acquisition rate is quite high, but below the values of Subject relativization. Similar results are exhibited for the Genitive construction; in two of the tasks, the error rates are below 25% (in Grammatical Judgment, 9.38; in Sentence Combining, 5.00%). This means that, following the Subject relativization, the upper group seems to have also mastered the Genitive and Direct Object; however, their actual order is not quite obvious.

The results, so far, have revealed that Turkish learners of English do not follow the NPAH (neither the lower- nor the upper-intermediate group). However, a conclusive order for the acquisition of relative clauses by the subject samples has not been arrived at. The analyses have borne out three different hierarchies. To understand which of these hierarchies is dominantly followed, a further analysis in terms of every single student in each group has been carried out.

4.3.3. RC Learning Orders as Exhibited by Individual Students

To arrive at a final order for both groups' students, or at least to identify their dominant tendency, the hierarchy for every single student has been found. For carrying out this kind of an analysis, students' errors on each of the relative clause types have been calculated and the number of errors has been ordered from the lower to the higher number. While this ranking was done, some of the constructions turned out to have equal numbers of errors; in such cases, the ordering according to the NPAH has been preferred. For example, if a learner had 4 errors in both Subject and Direct Object, the

order has been done in favor of the Subject, which also comes before the Direct Object in the hierarchy. The analysis has been carried out for the students in both groups.

4.3.3.1. Individual RC Orders of Lower-intermediate Students

The detailed analysis of the 40 students in the lower intermediate group has brought about 16 different patterns suggesting a learning order. The distribution of students in terms of the hierarchy they exhibit has been illustrated in Table 4.7. (for a detailed analysis, see Appendix K).

Table 4.7.
Individual RC Learning Patterns (Lower-intermediate)

	Pattern	f(n)	%
1	S < DO < GEN < IO < OBL	7	17.50
2	S < GEN < DO < IO < OBL	6	15.00
3	S < DO < GEN < OBL < IO	5	12.50
4	S < GEN < DO < OBL < IO	4	10.00
5	DO < S < GEN < IO < OBL	3	7.50
6	DO < GEN < S < IO < OBL	2	5.00
7	GEN < S < DO < OBL < IO	2	5.00
8	S < DO < IO < GEN < OBL	2	5.00
9	S < IO < GEN < DO < OBL	2	5.00
10	S < GEN < IO < DO < OBL	1	2.50
11	S < GEN < OBL < DO < IO	1	2.50
12	GEN < DO < S < OBL < IO	1	2.50
13	DO < S < GEN < OBL < IO	1	2.50
14	GEN < IO < S < DO < OBL	1	2.50
15	GEN < S < DO < IO < OBL	1	2.50
16	S < DO < IO < OBL < GEN	1	2.50
	TOTAL	40	100.00

As Table 4.7. displays, there are 16 different patterns exhibited by altogether 40 students in the lower-intermediate group. 7 (17.50%) students are in accordance with pattern 1; 6 students (15.00%) with pattern 2; 5 students (12.50%) with pattern 3; 4 students (10.00%) with pattern 4; and 3 students (7.50%) with pattern 5. Patterns 6,7,8, and 9 are followed by 2 students (5.00%) each; and the rest, patterns 10, 11, 12, 13, 14, 15, and 16 are followed by only 1 student (2.50%) each. Pattern 16 reflects the NPAH hierarchy as suggested by Keenan and Comrie, however, it is only followed by one

student. This means that 97.50% of the lower group students do not follow the NPAH while learning relative clauses.

It is interesting that none of the patterns accord with the majority of the students. Although the first pattern is followed by the largest number of learners, it only makes up 17.50% of the sample population. Thus, before coming to a conclusion regarding students' tendency in learning relative clauses, it would be appropriate to analyze the patterns first.

Keeping the NPAH in mind (S<DO<IO<OBL<GEN), first the position and place of the individual relative clause types in each pattern have been examined. That is, in how many of these patterns are the Subject, Direct Object, Indirect Object, Oblique and Genitive in the places they are expected to be when compared to the NPAH.

In 9 out of 16 patterns (patterns 1, 2, 3, 4, 8, 9, 10, 11, 16), the Subject is in its expected place. The number of students who have placed the Subject in the first order is 29, which makes up 72.50% of the whole group.

In 5 out of 16 patterns (patterns 1, 3, 8, 12, 16), the Direct Object relativization is in the second position. The number of students who have placed the Direct Object in its suggested position is 16, which makes up 40.00% of the whole group.

In 3 out of 16 patterns (patterns 8, 10, 16), the Indirect Object is in the third place (the place on the NPAH). 4 students have placed it in this position and this corresponds to 10.00% of the group.

In 6 out of 16 patterns (patterns 3, 4, 7, 12, 13, 16), the Oblique is placed in the fourth position. 14 students have done this in the expected order, and this number corresponds to 35.00% of the subjects in this group.

In 1 out of 16 patterns (pattern 16), the Genitive is in the final position. Only one student (2.50%) has placed the Genitive correctly; this is also the only subject in this group who has followed the NPAH as it is.

The most striking result is exhibited by Genitive relativization, as it was also the case in the previous group and task analysis. In only one pattern and only by one student has Genitive received the expected ranking, when compared to the NPAH. Together with the findings of task and overall group results, it seems that the Genitive construction does somehow not fit into the hierarchy. It does not only occur in the

wrong places, it also affects the positions of the other items on the hierarchy. Accepting that the Genitive violates the order of most of the patterns exhibited in this group, Table 4.8. demonstrates how the hierarchy would look if Genitive is excluded from the patterns.

Table 4.8.

Individual Patterns Without the Genitive (Lower-intermediate)

	Pattern	f(n)	%
1	S < DO < IO < OBL	17	42.50
2	S < DO < OBL < IO	11	27.50
3	DO < S < IO < OBL	5	12.50
4	S < IO < DO < OBL	3	7.50
5	S < OBL < DO < IO	1	2.50
6	DO < S < OBL < IO	2	5.00
7	IO < S < DO < OBL	1	2.50
	TOTAL	40	100.00

When Genitive is excluded, the variety of patterns is reduced to seven. Within these seven patterns, pattern 1 is followed by 17 students (42.50%), pattern 2 is followed by 11 students (27.50%), pattern 3 by 5 students (12.50%), pattern 4 by 3 students (7.50%), pattern 6 by 2 students (5.00%), and patterns 5 and 7 by only one student each (2.50%).

It is interesting that 4 of these patterns start with the Subject (80.00% of the students) as the first item of the hierarchy. More striking is the fact that all of the patterns end either with the Indirect Object or the Oblique. This cannot be attributed to coincidence as 100% of the students at this level have exhibited the same result. When we refer back to the findings related to Group Error Rates (Tables 4.1. and 4.2.) and the results regarding the different task types (Section 4.3.2.4.), the interchangeable places of the Indirect Object and Oblique find support. It was stated that the difference between Indirect Object and Oblique, in terms of error rates, had been observed to be about 1% only. That is, in number of errors, the difference was either one or two errors. These findings, as well as the result of pattern analysis, support the assumption that these two constructions might be learned simultaneously. The individual pattern analysis for this group supports this view, thus suggesting an order illustrated in Table 4.9.

Table 4.9.
Suggested Patterns without Genitive (Lower-intermediate)

	Pattern	f(n)	%
1	S < DO < [IO, OBL]	28	70.00
2	DO < S < [IO, OBL]	7	17.50
3	S < IO < DO < OBL	3	7.50
4	S < OBL < DO < IO	1	2.50
5	IO < S < DO < OBL	1	2.50
	TOTAL	40	100.00

[] = means 'learned at the same time and with similar error rates'

When we look at Table 4.9., we can see that treating Indirect Object and Oblique under the same degree (relying on the previous analysis) has borne out a pattern that 70.00% of the whole sample agrees. This pattern is followed by the second pattern with 17.50%, pattern 3 with 7.50%, and patterns 4 and 5 with 2.50% each.

As a result of the analysis of the lower group students, it can clearly be said that lower intermediate students (with a percentage of 97.50%) do not follow the NPAH because in most instances, Genitive seems to violate the pattern, thus preventing possible generalizations. If the Genitive is not considered, and the Indirect Object and Oblique are treated under the same position, the distribution of students is more consistent; at least, the results refer to a general tendency of students comprising 70.00% of the whole sample. Thus it can be concluded that lower-intermediate students have a tendency to follow the pattern shown in Figure 4.10.

S < DO < [IO, OBL]

Figure 4.10. General Tendency for RC Acquisition (Lower-intermediate)

It should still be noted that this pattern refers to "tendency", keeping in mind that 30% of the students show deviation. This deviation and its possible reasons will be discussed in detail later.

4.3.3.2. Individual RC Orders of Upper-intermediate Students

After a detailed analysis of the 40 students in the upper-intermediate group, 13 different patterns have been arrived at. The distribution of the students regarding the patterns they exhibit has been displayed in Table 4.10. (for a detailed analysis, see Appendix L).

Table 4.10.
Individual RC Learning Patterns (Upper-intermediate)

	Pattern	f(n)	%
1	S < DO < GEN < IO < OBL	11	27.50
2	S < GEN < DO < IO < OBL	8	20.00
3	S < DO < GEN < OBL < IO	8	20.00
4	S < GEN < DO < OBL < IO	2	5.00
5	DO < S < GEN < OBL < IO	2	5.00
6	GEN < S < DO < IO < OBL	2	5.00
7	DO < S < GEN < IO < OBL	1	2.50
8	S < GEN < OBL < DO < IO	1	2.50
9	S < DO < IO < GEN < OBL	1	2.50
10	S < DO < IO < OBL < GEN	1	2.50
11	DO < GEN < S < OBL < IO	1	2.50
12	GEN < S < IO < OBL < DO	1	2.50
13	S < IO < GEN < DO < OBL	1	2.50
	TOTAL	40	100.00

Evident from the table, there are 13 different patterns for the order of acquisition of relative clauses in the upper-intermediate group. 11 students (27.50%) follow pattern 1; patterns 2 and 3 are followed by 8 students (20.00%) each. Patterns 4, 5 and 6 are followed by 2 students (5.00%) each. And the rest, patterns 7, 8, 9, 10, 11, 12, and 13, are followed by only 1 student (2.50%) each. Only one student in pattern 10 has exhibited a hierarchy like the NPAH, which means that 97.50% of the students in this group do not follow the NPAH.

In the upper-intermediate group, none of the patterns seem to be followed by the majority of the subject sample. Thus, by looking at the data, it is not possible to come

up with one pattern common or appropriate to account for the tendency of the whole sample, or at least the majority of the group.

When we examine the patterns with respect to the NPAH, the following comes out as interesting results:

In 8 out of 13 patterns (patterns 1, 2, 3, 4, 8, 9, 10, 13), the Subject seems to be in its expected position; that is, in the initial position of the hierarchy. The number of students who have placed the Subject in this position is 33 (82.50%).

In 4 out of 13 patterns (patterns 1, 3, 9, 10), the Direct Object is placed in the second rank; the suggested place according to the NPAH. This has been done by 21 students, a number corresponding to 52.50% of the group.

In 3 out of 13 patterns (patterns 9, 10, 12), the Indirect Object is placed in the third position. This can be observed in 3 students; 7.50% of the whole group.

In 6 out of 13 patterns (patterns 3, 4, 5, 10, 11, 12), the Oblique, according to the NPAH, has been placed correctly in the fourth position. This is evident in 15 students, corresponding to 37.50% of the subjects.

In only one out of 13 patterns (pattern 10), the Genitive occurs in the final position. Only 1 student (2.50%) has placed this construction into the position as required by the NPAH. This very student is at the same time the student who has followed the overall NPAH.

The results, especially of the Genitive, bear important outcomes supporting the findings of the previous analysis on total group and task results. In the upper-intermediate group, one single pattern followed by one single student exhibits the expected result in terms of the place within the hierarchy. This finding foregrounds Genitive as the construction violating the hierarchy and also forcing the other constructions to violate the ranking by placing itself between different types each time. Thus, it would be logical to assume that Genitive might be treated as a different category apart from the other RC types in the NPAH (supported by Hamilton, 1995). Thinking from this point of view, the order for the upper-intermediate group (without Genitive) would look like the ones presented in Table 4.11.

Table 4.11.

Individual Patterns without the Genitive (Upper-intermediate)

	Pattern	F(n)	%
1	S < DO < IO < OBL	23	57.50
2	S < DO < OBL < IO	10	25.00
3	DO < S < OBL < IO	3	7.50
4	DO < S < IO < OBL	1	2.50
5	S < OBL < DO < IO	1	2.50
6	S < IO < OBL < DO	1	2.50
7	S < IO < DO < OBL	1	2.50
	TOTAL	40	100.00

Excluding the Genitive from the patterns, the number of all possible patterns for the upper-intermediate group has been reduced to 7. Within these, pattern 1 is exhibited by 23 students (57.50%); pattern 2 by 10 students (25.00%); pattern 3 by 3 students (7.50%); and patterns 4, 5, 6, and 7 by 1 student (2.50%) each.

It is worth pointing out that 5 of these patterns start with the Subject (90.00% of the students), and 6 of these patterns end either with the Indirect Object or Oblique (97.50% of the students in this group). It was noted earlier that for the upper group, task results, as well as group total results, indicated that these students had mastered the Subject relativization. Thus it is not surprising that 90.00% of the whole group has placed it at the first level. The findings related to the changing places of the Indirect Object and Oblique can also be attributed to previous results. In total group analysis and task-based analysis, Indirect Object and Oblique exhibited quite close error rates suggesting simultaneous acquisition of these two constructions. Thus Indirect Object and Oblique can be taken under the same rank order. Table 4.12. demonstrates the patterns, considering the close error rates of these two constructions.

Table 4.12.

Suggested Patterns without the Genitive (Upper-intermediate)

	Pattern	f(n)	%
1	S < DO < [IO, OBL]	33	82.50
2	DO < S < [IO, OBL]	4	10.00
3	S < OBL < DO < IO	1	2.50
4	S < [IO, OBL] < DO	1	2.50
5	S < IO < DO < OBL	1	2.50
	TOTAL	40	100.00

[] = means “learned at the same time and with similar error rates”

We can see that by treating the Indirect Object and Oblique under the same category (basing it on the previous analysis and findings), it is possible to come up with a pattern with which the majority of the students (82.50%) agree. The second pattern is followed by 4 students (10.00%), the rest of the patterns (3, 4, and 5) are followed by only 1 student (2.50%) each.

To conclude, we can say that upper-intermediate students do not follow the NPAH as in most of the cases (97.50%), the Genitive creates problems in the order of a common pattern. In the patterns, when Genitive is excluded and Indirect Object and Oblique treated as similar degree constructions, the distribution of the students displays a more common order. As it is too strong a claim that upper-intermediate students follow a certain order, the pattern exhibited by the majority will be called a tendency rather than a hierarchy. Figure 4.11. shows this tendency for the acquisition order of relative clauses by upper-intermediate students.

S < DO < [IO, OBL]

Figure 4.11. General Tendency for RC Acquisition (Upper-intermediate)

4.3.3.3. Evaluation of Individual RC Orders for Both Groups

The evaluation of individual RC orders as exhibited by the two different groups refers to similarities as well as to some minor differences. The findings of this section, when the two groups are compared, can be summarized as follows:

1. In none of the groups (lower-intermediate and upper-intermediate) is there a common pattern corresponding to the error rates of each of the students. The lower-intermediate group has exhibited 16 different patterns, whereas the upper-intermediate group has exhibited 13 (Tables 4.7 and 4.10, respectively).
2. In all of the patterns (exhibited by both lower- and upper-intermediate students), the Genitive (except for 2.50%) is in a position that does not reflect the NPAH of Keenan and Comrie.
3. In all of the patterns and by the majority of students in each group (72.50% for the lower-intermediate and 80.00% for the upper-intermediate), the Subject reflects its position in the NPAH; that is, it is in the initial position.
4. In both groups, the Genitive comes out as the construction violating the NPAH to a very high degree (97.50% for both groups).
5. The pattern distribution without the Genitive brings about a more common pattern for both groups, yet, it does not account for the majority of the groups.
6. In both of the groups, the Indirect Object and the Oblique (except for one pattern in the upper group, see Table 4.12) are at the final stage of the patterns. This has been followed by 100% of the lower and 97.50% of the upper-intermediate students; very high rates for both groups, showing 2.50% of deviation in only one of the groups.
7. For both groups, when Indirect Object and Oblique are treated as constructions having similar rankings within the pattern, there comes out a pattern agreeing with the majority of the students (70.00% for lower-intermediate and 82.50% for upper-intermediate).
8. The final finding for this section is that the tendency pattern for both groups is exactly the same: S<DO<[IO,OBL]

Thus irrespective of their levels, students follow the same hierarchy, but with different rates of deviation (30% of deviation for lower-intermediate, and 17.50% of deviation for the upper-intermediate).

4.4. Conclusion

This study aimed at providing answers to three interrelated research questions. From three different perspectives, the data has been analyzed to provide a reliable answer to these questions. The total group analysis in terms of error rates, the task-based analysis regarding the error rates, and the individual patterns exhibited in the two different groups all provide support to the answers.

The answer to the first research question --Do adult Turkish learners of English follow the NPAH while acquiring Restrictive Relative Clauses? -- is "No, they do not." In both of the groups, 97.50% of the whole subject sample follows an order other than the NPAH while learning relative clauses.

The second research question was an extension of the first one: If the learners do not follow the NPAH, what is the order of acquisition in RRCs for Turkish learners of English? The total group results (Tables 4.1. and 4.2.), task-based results (Tables 4.4., 4.5. and 4.6) and the results on individual patterns (Tables 4.7. and 4.10) have provided evidence for the fact that when the Genitive construction is included, no common order for either of the groups can be observed. However, when the Genitive (the construction violating the hierarchy most) is excluded and the Indirect Object and Oblique treated under the same difficulty level, the groups exhibited a tendency toward one pattern. Both groups tended to follow a hierarchy starting with the Subject, followed by Direct Object, which is then followed by either the Indirect Object or the Oblique (see Figure 4.10 and 4.11).

An additional question was-- Do lower- and upper-intermediate learners exhibit the same/different order for acquisition while learning RRSc in English? The answer is that they exhibit the same order. However, this order cannot be stated as an absolute hierarchy. It can be claimed to be a tendency in determining the order for RRC acquisition. Even though, both groups have been found to agree with the same pattern, the degree of deviation is higher in the lower-intermediate group (see Table 4.9) but lower in the upper-intermediate group (see Table 4.12).

CHAPTER 5

CONCLUSION

5.1. Summary of the Study

In learning a language, teachers and researchers in SLA have always discussed the role of knowing grammar; finally agreeing that grammar is really the skeleton of a language that needs to be acquired to account for linguistic accuracy in the target language. While learning a new language, the language that the learner is exposed to (input) seemed to have an important place. However, studies have shown that the acquisition of syntax cannot be accounted for by the bare input the learner experiences, because not all input has turned out to become intake. That is, learners have selected certain structures prior to others in acquiring grammar, even though all of them were presented in the input. What this selection is determined by has been explained in terms of social interaction, input frequency, or the native language of the learners. However, most of them have lacked, either partly or completely, to account for the distribution of structures and the order in which these structures occurred; so, mostly they have failed to account for the interlanguage data at hand.

It has, then, been claimed that input is converted into intake by considering the markedness degree of the syntactic items to be mastered. That is, less marked items are more likely to become intake than highly marked ones. Especially structures like Restrictive Relative Clauses in English, have attracted attention in research as they lend themselves for several interrelated degrees of markedness within the same structure.

This study has investigated the importance of markedness conditions in language learning in terms of the NPAH and the differing degrees of markedness of the components involved (Subject, Direct Object, Indirect Object, Oblique, and Genitive relativizations). It has been guided with questions such as: Do Turkish learners of English follow the NPAH while learning relative clauses; and, does the difference in their levels of proficiency change the order that they reflect?

In order to provide answers to these questions, two groups have been selected as the target sample: one lower-intermediate (n=40) and one upper-intermediate (n=40). The subjects have been given three different tasks eliciting the five relative clause types on the

NPAH. These tasks included Grammatical Judgment, Sentence Combining, and Translation.

The results suggest that the NPAH is followed by only one student in each group (making up 2.50%) of the whole population. Turkish adult learners, while learning relative clauses seem to follow a pattern other than the one suggested by Keenan and Comrie (NPAH). The order for acquisition has come out as S<DO<[IO,OBL].

To sum up, this study can be considered as a descriptive study aimed at identifying learners' current stage of development in relative clause formations and relating these findings to the claims of the NPAH. The results, despite contradicting partly with the NPAH, find support in the literature on SLA.

5.2. Evaluation of the Results

The NPAH has been introduced by Keenan and Comrie in 1977. This hierarchy consists of five different relative clause types; namely, Subject, Direct Object, Indirect Object, Oblique and Genitive relativizations. As it is also evident from their names, these five types are based on grammatical relations. These grammatical relations are claimed to operate within different degrees of markedness (Subject being the least marked and Genitive being the most marked). From a linguistic point of view, every marked construction implies the existence of a less marked one. Typologically, this means that if a language is able to express the marked item, it also has to be able to possess the less marked one(s). From a pedagogical point of view, less marked structures in the input are to be learned and converted to intake more easily and with a higher rate of accuracy than marked structures.

Bearing this in mind, this study has borne out results contradicting with this theory and operational framework. In the first part of the analysis, concerning total group results, both groups have exhibited the same hierarchy for relative clause acquisition; however, it is distinct from the NPAH. The only difference has been observed in terms of the place of the Genitive construction (the other being in accordance with the suggested hierarchy). Although Genitive relativization, on the NPAH, seems to be the most marked construction and so the hardest one to learn, students have placed it between the Subject and Direct Object; quite close to the least marked ones.

Interesting, again, is that the task analysis in terms of error rates has brought about similar results. Although the hierarchies exhibited by the groups were for the most the same, the patterns for each task turned out to be different. The difference has been attributed to the position of the Genitive construction because in all three patterns (one for each task), only the Genitive seemed to violate the hierarchy. In Grammatical Judgment, the Genitive has come between the Subject and Direct Object; in Sentence Combining, at the beginning, before the Subject; and in Translation, the Genitive has been located between the Direct Object and Oblique.

Looking at individual patterns for each group's students, only one student in each group seemed to have placed the Genitive into its correct and expected place; indicating that in 97.50% of the students, Genitive has been observed either between Subject and Direct Object; or Direct Object and [Indirect Object and Oblique].

Considering that in all three types of analysis, Genitive is found to violate the global hierarchy of the students, it is essential to know why this has been the case. Why do students' intuition (Grammatical Judgment Test) and performance (Sentence Combining and Translation Tasks) on the tasks indicate that Genitive, in spite of its highly marked value, is actually not as hard to learn as claimed by its position on the NPAH?

To provide a comprehensible explanation to the fact that the ease of learning Genitive relativization does not correspond to its markedness degree, the first thing to be discussed is the NPAH itself. As stated earlier, this hierarchy operates in terms of Grammatical Relations like Subject, Direct Object, and so forth. However, putting the Genitive under the same category could be misleading as Genitive can be formed on Subject, Direct Object or Oblique. For example, in *the man whose wife got ill could not find a doctor*, relativization is done on the Subject but it is Genitive in nature. In the example, *The man whose wife I saw yesterday did not notice me*, the relativization is done on the Direct Object, the noun phrase, again having a genitive nature. However, these two sentences differ in their degree of complexity, the first being easier as relativization is done on the Subject, the latter being one step harder as it requires relativization on Direct Object. Thus, Genitive should be analyzed with respect to Noun Phrase (NP) function in which it is involved; not barely in terms of the Genitive nature of the NP. This, to a great

extent, explains why the Genitive construction has not been placed in the position expected by the NPAH.

As Hamilton (1995) highlights, there are different things evident in the relative clause structures of a language. One involves the grammatical relations (on which the NPAH is based); the other one involves the NP extraction; i.e., configurational differences. To put it another way, “the varying degree of the different relative clause types is due to the degree of phrasal discontinuity set up by Wh-extraction in each type” (p.102). This means that whereas the Subject relativization requires a less complex structure in terms of extraction, Direct Object, Indirect Object, and Oblique require more complex extractions.

5.3. Linguistic Implications

Structures like Relative Clauses can be distinguished both in terms of the grammatical relations of the NP and the phrasal discontinuity of the NP involved. Grammatical relations refer to the function of one NP in a sentence or clause, whereas phrasal discontinuity or configurational analysis is more concerned with how a particular sentence or clause comes into existence. That is, how is it formed, and what kind of extraction does it experience in its realization. Basing the characteristics of a construction only on one of these, and developing hierarchies, might undermine the importance of the syntactic complexity of that structure. In this respect, especially adapting findings into language pedagogy, some hierarchies need to be expanded because the complexity of the phrase structure may not correspond to the ranking of markedness as established by the markedness degree in terms of grammatical relations.

When we look at the NPAH as a point in case, regarding grammatical relations, it exhibits an order like the one suggested by Keenan and Comrie: S<DO<IO<OBL<GEN. However, when we consider the complexity of the phrase structure in the relativization types, we also have to look at the Wh-extraction in the clause; that is, how far is the relative clause removed from the head noun while forming the relevant construction. Subject relativization is the easiest to learn as it only requires an extraction from Inflection Phrase(IP). For Direct Object, it is harder as it requires extraction from Verb Phrase (VP) within IP. The hardest to learn are the Indirect Object and Oblique as they both require an extraction from Prepositional Phrase (PP) within VP within IP (Hamilton, 1995). That also

explains why students had similar error rates on Indirect Object and Oblique relativization types.

The Genitive construction, as stated earlier, should be considered in relation to the noun phrase function in which it operates. That is, the Genitive nature of the noun phrase is not the determinant factor in assigning markedness; it is rather the function of the noun phrase itself. Consequently, this construction might be analyzed as a subcategory within the hierarchy which consists of only Subject, Direct Object, Indirect Object, and Oblique.

Although this study has not specifically been designed to gather data on these two aspects of relative clause formation, for pedagogical purposes, the findings refer to an order as shown in Figure 5.1. This order has been arrived at by integrating the complexity of the Wh-extraction of the relative clause types and the genitive nature of the noun phrase into the already existing NPAH.

[S, S-gen] < [DO, DO-gen] < [IO, IO-gen, OBL, OBL-gen]

Figure 5.1. Alternative Hierarchy for Relative Clauses

This finding does, by no means, indicate that hierarchies depending on grammatical relations are not valid as there is a lot of support for this in Language Typology. However, in terms of language learning, some problems arise because structure complexity (configurational analysis) is not completely in accordance with the analysis regarding grammatical relations; like it is the case with the NPAH. If structure complexities are really important, this would imply that, to a certain degree, such structures and their level of markedness is determined by the syntactic realization of that specific structure. That is, despite grammatical relations being the same, if one language realizes a particular relative clause type in a way other than English (or contradicting with English), for example, it might refer to language specific differences rather than absolute universals.

The aim of this study is not to question the NPAH on linguistic grounds; however, the findings, as well as the literature (Hyltenstam, 1983; Hamilton, 1995), refer to some gaps in the factors determining hierarchies and assigning relative degrees of markedness. As language learning and teaching, a part of Applied Linguistics, make use of the findings

of linguistics, this result was considered to deserve attention in this study and its relevant implications.

5.4. Pedagogical Implications

Grammar and Language Learning are accepted to be indispensable parts of a whole. However, how this grammar is developed and converted into intake (internalized) has been discussed, and most probably, will continue to be discussed for a long time. This study has provided insight on how grammatical structures in the input might be selected by the learners and put in an order of acquisition. *Markedness* has been claimed to shed light on this process of intake; pointing out that students are ready to learn every other marked structure in the order of their markedness degree.

As teachers of English, most of us have probably noticed that with certain structures, learners keep making errors whereas with others, only few problems occur. This reflects the nature of the structure being learned and the cognitive readiness of the students to learn this structure. This study has shown that, although under the same structure --Relative Clauses--, some types are learned with ease (like Subject and Genitive) but others with more difficulty (like Indirect Object and Oblique) when instructed at the same time.

One of the most important implications of this study highlights the role of readiness in language learning. A set of structures differing in their degree of markedness and structure complexity are suggested to be given in their respective order. This brings to mind Krashen's famous $i+1$ comprehensible input hypothesis. Krashen has been severely criticized on his *comprehensible input* hypothesis, basically because there was a gap in identifying what really was comprehensible (McLaughlin, 1987). Assuming that i represents the learners existing interlanguage system, in determining one level above ($+1$) markedness could be one of the criteria. After having assessed students' current stage of interlanguage, the order to be followed in presenting new structures should be in accordance with the idea "one level above." This study supports this as it is evident from the increasing error rates towards the marked and complex structures. Even though it is not intended to mean that markedness degree is the factor determining comprehensible

input, it is suggested that it might shed light on defining this type of input by considering the markedness relationship as one of the criteria in operation.

Interrelated with this is the issue of testing. Giving all related structures at the same time (irrespective of their markedness or complexity, like relative clauses) requires also testing and evaluating (causing to pass or fail) students on these structures. This means that students are asked and expected to perform immature and not yet internalized or mastered structures. This, in turn, causes problems in testing students on real cognitive process in their language learning task. If grammar is taught in accordance with the learners' readiness, the results of tests given to students to assess their improvement would not be disappointing, as it usually is the case.

The fact of learner readiness and the learnability of the item under study has important implications for language teachers, textbook writers, and syllabus designers. Usually, grammar books designed for language classrooms (like *How English Works*, Swan & Walter, 1997; *English Grammar in Use*, Murphy, 1985; *Oxford Practice Grammar*, Eastwood, 1992) present and aim at teaching all types of a given structure at the same time. For example, structures like Modals, If-Clauses, and Relative Clauses actually exhibit differences within themselves. Setting up the content of a book, bearing in mind that students cognitively are ready for one aspect or type of a structure before another aspect, is hoped to make textbook writers and syllabus designers reconsider previous applications. One example for such an approach to language teaching is integrated in the "Spiral Method," which comes to one structure again and again, each time adding more marked forms to what has already been taught or covered. The grammar books *Grammar Dimensions* by Riggensbach & Samuda (1997), *Grammar: Strategies and Practice* by Briggs (1994), or *Grammarway* by Dooley & Evans (1998) provide good examples for such a grammar course content and organization.

Seeing that (although with minor deviations) students, irrespective of their level of general linguistic knowledge, follow a common order in learning grammar, there are also some implications to be mentioned concerning the predictive side of language learning. If teachers know what will occur next in learners' productions and why this is the case, they will also have the chance to make some predictions on learners' current and coming interlanguage system (based on hierarchical relationships). Accepting learners' already

existing knowledge, and building on this, considering logical cognitive processes (like readiness in input processing and structure complexity), would provide a chance to use data for prediction and further implementation within the language learning program at large.

This study has also shown that, despite keeping the same accuracy order, students' reflection of competence changes according to the tasks at hand. The rate of errors exhibited in one task is not the same when compared to the results in another task of the same student. Thus, although the competence of a given student is always the same, the degree to which that individual student reflects it, is closely related to the difficulty level of that task. Especially in evaluating students' performance, a high variety of tasks should be integrated into the testing instrument; relying on the results of only one type of task could be misleading.

5.5. Limitations of the Study

From the methodological point of view, the analysis has shown that the number of subjects included in this study caused some problems in the generalization of the findings. Frequency distribution of only 40 students in each group has borne out frequencies like 1, which corresponds to 2.50% of the whole population. In interpreting the results, this has brought about some difficulties. Thus the number of subjects (a total of 80) could be considered as a limitation for the external validity of the findings and generalizability of the results.

The second limitation concerns the number of tokens for each relative clause type investigated in this study. Although 12 tokens have given an idea of the tendency of the students learning order, if the number had been higher, slight differences in error rates (like the ones between Indirect Object and Oblique) could have become more evident. Thus, stronger claims and conclusions could have been arrived at.

While designing the data collection instruments and developing the relevant items, the NPAH has been investigated relying on Grammatical Relations. The aspect of Wh-extraction, as it was not the focus of the study, has not been controlled for in developing the items in each task. That is why, when conclusions have been drawn relating to structure complexity and extractions in the different types of relative clauses, these are

only in the form of assumptions or possible explanations; no direct evidence can be provided by the results of this study.

While analyzing the data with respect to the different task types, three different orders have been reflected by the rate of student errors. This brings to mind that if more than three tasks had been used when collecting the data, a richer database would be formed. Consequently, the number of task variety seems to be a limitation on the generalizability of results and conclusions.

During the specification of the scope of the study, it was decided that the concern would be relative clauses at the sentence-level only. That is why, in this study, no aspect of the function of the structure at the discourse-level has been taken into account. The findings and results only reflect the accuracy and errors exhibited at the sentence-level, focusing on the formal structure. Whether the functional aspect would somehow invalidate or support these findings is open to discussion. These results, by no means, provide insight into form-function relationship.

The items in the grammaticality judgement test contain errors of various types; surface errors like wrong relative pronoun usage, as well as errors like the use of resumptive pronouns. The same holds true for the evaluation and scoring of the sentence combining task and translations task. That is, surface errors and deep-structure errors, like inaccurate wh-movement have both been considered wrong, without differentiating between their error level of difficulty. Consequently, no interpretations or discussions have been done with respect to error difficulty and how it relates to the NPAH.

In determining the tasks to be used, the focus has been students' intuition (Grammatical Judgment) and their written production at the sentence level (Sentence-combining and Translation) concerning the target structure. That is, these findings cannot account for spontaneous language production of the students; neither written nor spoken. The speech of learners, especially, has not been investigated at sentence- or discourse-level, so that speech production cannot be explained or interpreted depending on the results of this study.

5.6. Suggestions for Further Research

In conducting a study, the number of subjects that are included plays an important role in both the generalizability and interpretation of findings. As this issue has been considered as a limitation in this study, further studies can be carried out taking a larger subject sample. This would be valuable in terms of comparing results and, if similarities are found, suggesting stronger claims about the population at large.

In this study, the number of tasks, as well as the number of tokens, for each of the relative clause types was limited. Studies are needed that look at different tasks which include more tokens of the same constructions. As tasks have been found to suggest different orders, the variety of tasks and items could give a more reliable understanding, either in support or contradiction of the findings of the present study.

The NPAH, in this study has only been investigated as suggested by Keenan and Comrie. That is, the configurational side of the clauses involved have not been taken into consideration, neither while forming the database, nor in the analysis itself. A study looking at relative clauses from both aspects (grammatical relations and configurational characteristics) would be very valuable in providing evidence on which type of analysis is dominant in language learning.

Further studies are needed that investigate relative clauses or other structures at sentence-level as well as discourse-level, seeking a relationship between the acquisition orders that both data types exhibit. This would give an understanding of whether accuracy of a structure and appropriacy of that structure within a discourse bring about similar or different results in terms of their acquisition order.

Spoken language is quite different from written language and the processes that they require on the side of the learners are also distinct in nature. Learners, when faced with a written task, have a chance to monitor and evaluate their own performance, which in spoken tasks is not possible. Consequently, it is possible that data arrived at by spoken tasks and written tasks of the same student turns out to reflect different error rates and reflections of learning order. A study examining this relationship could fill some gaps in arriving at an acquisition order consistent with various types of data on the same structure.

Markedness is a very general phenomenon affecting not only relative clauses but also other constructions of the language being learned. To have a conclusive right to say whether it has a determinant role in processing input into intake, studies investigating other structures within the framework of language learning are needed.

The study lacks input on whether error difficulty (i.e., surface errors like wrong relative pronoun usage or deep-structure errors like inaccurate *wh*-movement) has any relationship with the markedness degrees of the various relative clause types. A study controlling for error types might be valuable to provide insight on whether error difficulty plays an effective role in determining the hierarchy. That is, do students make more surface level errors with unmarked ones and more deep-structure errors with marked types?

In this study, input factors, like frequency, have not been taken into account. To come to a decision on whether markedness is really more dominant than the frequency of the structure in the input, studies controlling input frequency would be very valuable.

One of the pedagogical implications of this study was the suggestion of using a spiral method in teaching grammar. That is, it was suggested that teachers should teach a structure by returning to it from time to time, in each instance adding a new aspect of the same structure; a process from easy to difficult or from marked to unmarked, but leaving time for the students to process the formerly given item. The effectiveness of such a method was, however, only assumed on the basis of the results of the study. A study investigating this method in grammar teaching would provide both teachers and researchers with valuable insights.

5.7. Conclusion

This study has aimed at probing the application of the NPAH by Keenan and Comrie to language learning. The results suggest that the NPAH is not sufficient enough to account for the outcomes of Turkish learners of English. However, this study has borne out results that are important both linguistically and pedagogically.

The NPAH relies on the operation of different grammatical relations, each being assigned a degree of markedness value. This markedness value has been claimed to be effective in determining the process of intake. However, the findings of this study

tentatively suggest that it is the configurational aspect of the structure, not grammatical relations, that account for the complexity of the constructions. That is, students are found to be more sensitive to configurations (phrasal discontinuity) than to the grammatical relations evident in relative clause formations.

From the pedagogical aspect, it updates the issue of *comprehensible input* from a different perspective. This study has suggested an alternative, based on markedness as assigned by configurations, to account for the learning order of a given item. Thus every new item to be presented to a learner should exhibit +1 degree of markedness so that learning goes in accordance with learner readiness, complexity of the item and the degree of markedness of the item. However, it has also highlighted that, while assigning relative degree of markedness, the markedness criteria should be reviewed so that it considers both aspects: grammatical relations and configurations.

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APPENDIX A

Grammaticality Judgement Test

NAME/SURNAME:

CLASS :

Indicate whether the following sentences are grammatical or ungrammatical. If you think the sentence is grammatical, put a tick (); if you think the sentence is ungrammatical, put a cross (X) in the blanks provided.

Please do not make any corrections.

1. _____ I found the taxi in whose I forgot my purse.
2. _____ The woman whose dress was torn got very upset.
3. _____ I cooked Italian food which actually tasted Indian.
4. _____ The boss called the secretary who he employed last week.
5. _____ Mary likes the children to whom she gives presents every week.
6. _____ I love my girlfriend to whom I bought all the flowers in the city.
7. _____ The girl who she had disappeared suddenly could not be found.
8. _____ This is the diary in which I keep my memories.
9. _____ Jane discussed with the woman whom child had stolen her bag.
10. _____ One of my roommates whose father is a famous lawyer he will be a lawyer, too.
11. _____ Our neighbour's son who had broken our window did not apologize.
12. _____ The book which I am reading now was written by Stephen King.
13. _____ That is the wall over which the athletes are going to jump tomorrow.
14. _____ I broke the vase which Mary had bought me as a present.
15. _____ I saw the bank manager to who I gave my cheque.
16. _____ The little boy wanted the chair which I was keeping my books under it.
17. _____ The journalist whose interview I watched yesterday has a programme on TV.
18. _____ The homework which our teacher had assigned it was rather difficult.
19. _____ I bought a wonderful car which it is right at the corner.
20. _____ I saw the man to whom the woman gave her ticket to.

APPENDIX B**Sentence Combining Task****NAME/SURNAME:****CLASS:****Please combine the following pair of sentences with a relative clause.****Use who, which, that, whose, and whom.**

1.a) The man was fired by his boss.

1.b) He had forgotten to pay the salaries.

1.

2.a) I always visit the child.

2.b) I told my life story to the child.

2.

3.a) The man was taken to hospital.

3.b) His wife was killed in the accident.

3.

4.a) I found the bag.

4.b) I had hidden her present in the bag.

4.

5.a) I know the woman.

5.b) He offered the money to the woman.

5.

6.a) The idea was excellent.

6.b) My father suggested it.

6.

7.a) I spoke to the manager.

7.b) His hotel is at the seaside in Florida.

7.

8.a) I have a list of words.

8.b) They are not in the dictionary.

8.

9.a) We noticed the train.

9.b) I lost my bag on the train.

9.

- 10.a) He wants to see the students.
10.b) He interviewed them yesterday.

10.

- 11.a) Everyone respects the headmaster.
11.b) I gave a present to the headmaster.

11.

- 12.a) John's colleague has left quite early.
12.b) He was present at the meeting.

12.

- 13.a) We watched the students.
13.b) The teacher handed the paper to the students.

13.

- 14.a) The film was directed by David Lean.
14.b) Mary had seen it in Venice.

14.

- 15.a) The woman was very upset.
15.b) Her child had been drowned in the river.

15.

- 16.a) I sold the sofa.
16.b) The boy used to put the cat under the sofa.

16.

- 17.a) She used an English idiom.
17.b) It did not mean the correct thing.

17.

- 18.a) I was teaching two Spanish students.
18.b) Jane had met them in Madrid.

18.

- 19.a) The students wanted the paper.
19.b) The teacher put a grade on the paper.

19.

- 20.a) I used to have a strange friend.
20.b) My friend's father was believed to be a spy.

20.

APPENDIX C

Translation Task

NAME/SURNAME:**CLASS:**

Please translate the following sentences into English by using a relative clause.
(Use who, which, that, whose, and whom).

1. Bu yaz emekliye ayrılacak olan arkadaşım İzmir'e taşınacak.

2. Kitabı verdiğim kızı dün gördüm.

3. Saçını kestığım müşteri parasını vermeyi unuttu.

4. Aniden ağlamaya başlayan kız sandalyeye oturdu.

5. O, hakkında kitap yazılan ünlü bir politikacıdır.

6. İçine cüzdanımı koyduğum çanta masanın üstünde.

7. Onun satın aldığı arabayı gördüm.

8. Doctor, yanlış ilaç verdiği hastasını ziyaret etti.

9. Bana verdiği kitabı kaybettim.

10. Tarif ettiği evi bulamadım.

11. Raporunu görmek istediğin öğrenci okulda yoktu.

12. Ahmet'in doğumgünü kutladığımız lokanta çok pahalıydı.

13. Ödevimi verdiğim öğretmen okuldan atıldı.

14. Geçen hafta kaybettiğim cüzdanı buldum.

15. Sınavlardan geçemeyen öğrenci çok üzgündü.

16. Arabası çalınan adam polisi çağırdı.

17. Fotoğrafımı verdiğim sekreter para da istedi.

18. Kullanılacak olan arabanın tamire ihtiyacı var.

19. Meyveleri kestiğim bıçağı kaybettim.

20. Kızını terk ettiğim kadını otobüste gördüm.

APPENDIX D

Lower-intermediate Group- Number of Errors in Each Task

	Grammatical Judgment					Sentence Combining					Translation				
	S	DO	IO	Obl	Gen	S	DO	IO	Obl	Gen	S	DO	IO	Obl	Gen
1	1	-	3	2	-	1	2	4	4	-	2	2	4	4	4
2	3	-	1	3	2	1	2	4	4	2	2	-	4	4	3
3	-	3	2	3	2	2	4	4	4	3	1	4	4	4	4
4	-	1	2	1	-	-	1	2	3	1	1	2	4	3	4
5	2	2	2	1	3	1	3	4	4	-	3	3	4	4	4
6	-	-	1	2	1	1	3	4	2	-	1	-	3	4	3
7	1	-	2	1	-	1	1	4	4	-	1	4	4	4	3
8	1	2	1	3	2	2	2	3	4	3	2	1	4	4	2
9	-	1	1	1	-	2	2	4	4	-	1	-	3	4	3
10	2	2	3	2	2	2	4	3	4	1	3	4	4	4	4
11	2	1	1	3	1	2	2	3	3	-	3	-	4	3	2
12	3	3	3	2	2	3	4	4	4	4	4	4	4	4	4
13	-	-	2	2	-	1	1	4	4	-	-	-	4	3	-
14	1	2	3	2	1	4	2	4	4	2	2	2	4	4	2
15	1	1	1	2	2	1	2	3	4	3	1	4	4	4	4
16	-	-	1	1	-	-	3	4	4	-	-	1	3	4	2
17	-	2	3	2	1	2	4	4	4	1	-	-	4	4	2
18	-	-	2	2	-	1	-	4	2	2	2	1	4	4	1
19	-	-	1	1	2	1	1	4	4	2	2	1	4	4	3
20	-	1	2	2	2	2	3	4	4	2	3	3	4	4	2
21	2	3	2	2	3	1	3	4	4	3	2	2	4	4	2
22	1	1	2	1	1	-	2	3	4	2	2	2	4	4	2
23	1	1	-	1	2	3	4	4	4	2	4	4	4	4	4
24	-	2	2	2	2	3	4	4	4	4	3	3	4	4	3
25	-	-	2	2	1	1	3	4	4	1	2	2	4	4	3
26	4	3	2	3	3	-	2	3	4	1	-	-	4	4	-
27	-	1	2	1	-	3	4	4	4	3	1	1	4	4	3
28	1	2	-	1	1	4	4	2	4	2	3	3	4	4	3
29	1	3	1	3	3	1	1	3	4	2	1	-	4	4	3
30	1	1	2	3	1	3	3	4	4	3	3	1	4	4	3
31	1	2	2	2	2	2	2	4	4	-	2	-	4	4	2
32	1	1	-	-	-	2	3	2	3	2	3	3	4	4	4
33	2	2	1	1	2	2	4	4	4	4	-	1	4	4	4
34	-	1	1	2	2	-	4	4	4	-	2	4	4	4	4
35	1	1	2	1	1	2	4	2	3	-	2	3	4	4	3
36	-	2	2	1	1	-	2	4	4	-	1	-	4	4	3
37	-	-	2	2	-	-	2	4	4	-	2	-	4	4	2
38	-	-	1	1	-	1	1	3	3	-	3	4	4	4	4
39	1	1	2	1	-	-	3	3	3	-	1	-	4	4	3
40	1	1	1	-	-	-	-	3	2	-	-	-	4	3	-
Tot.	35	49	66	67	48	58	101	142	148	55	71	69	157	156	111

APPENDIX E

Upper-intermediate Group- Number of Errors in Each Task

	Grammatical Judgment					Sentence Combining					Translation				
	S	DO	IO	Obl	Gen	S	DO	IO	Obl	Gen	S	DO	IO	Obl	Gen
1	-	-	2	1	1	-	-	1	-	-	-	-	4	3	-
2	1	-	2	1	1	-	1	1	1	-	-	-	3	3	2
3	-	1	1	1	-	-	2	1	3	-	-	-	4	2	2
4	-	-	1	1	-	-	-	1	3	-	-	-	1	1	-
5	-	1	2	1	-	-	-	-	1	-	-	-	1	2	2
6	-	1	2	2	-	-	1	1	4	-	-	-	4	4	3
7	-	1	1	1	-	1	-	3	2	-	-	-	4	3	2
8	-	1	1	3	-	1	2	-	4	-	-	-	4	3	2
9	-	1	1	1	1	2	4	4	4	2	3	4	4	4	4
10	-	1	2	1	1	-	1	-	-	-	1	-	1	4	3
11	1	-	1	1	1	1	-	3	1	-	-	-	3	3	-
12	-	-	2	1	2	-	1	3	4	-	-	2	3	4	3
13	-	1	2	2	1	-	1	4	4	-	-	-	4	3	2
14	-	1	1	1	1	1	1	3	4	-	-	-	3	4	1
15	-	1	1	1	-	-	-	4	2	-	-	-	4	4	2
16	-	1	1	1	-	-	2	-	1	-	-	-	1	2	2
17	-	1	1	2	-	-	-	1	-	1	-	-	3	1	-
18	-	-	1	1	-	-	1	4	3	-	-	-	3	3	-
19	1	1	2	2	-	1	-	4	4	-	-	-	2	3	2
20	1	2	1	1	-	1	3	3	4	-	-	-	4	3	1
21	1	1	1	1	-	1	-	4	3	2	1	-	4	3	2
22	-	-	2	2	1	-	-	4	4	-	1	-	4	3	1
23	-	-	1	2	1	-	-	4	3	-	-	-	2	2	2
24	1	1	1	1	-	1	3	2	1	-	-	-	-	1	-
25	1	1	1	1	-	-	2	4	1	-	-	-	4	3	3
26	-	-	2	-	-	-	1	-	1	-	-	-	1	2	3
27	-	-	1	1	-	-	-	-	1	-	-	-	1	1	-
28	-	-	2	2	-	-	1	4	4	-	-	-	4	4	-
29	-	-	1	1	-	2	2	3	1	1	-	-	3	4	1
30	-	1	1	1	-	-	2	3	3	1	1	-	3	3	2
31	-	1	1	2	-	1	2	1	4	-	-	-	3	4	1
32	1	-	-	1	1	-	1	4	4	-	-	-	4	4	2
33	1	1	-	1	-	-	3	4	-	-	-	1	4	2	1
34	-	-	1	2	-	-	-	-	-	-	-	2	1	3	-
35	-	1	-	1	-	-	2	3	1	-	-	-	4	3	2
36	-	2	1	1	1	-	1	4	4	-	-	1	2	3	1
37	-	-	1	2	-	1	1	2	2	-	-	-	3	2	-
38	1	1	1	1	-	-	-	-	-	-	-	-	2	2	1
39	-	1	2	1	-	-	3	2	4	1	-	1	1	4	2
40	2	2	2	2	2	-	1	4	4	-	1	2	4	4	3
Tot.	12	28	50	52	15	14	45	93	94	8	8	13	114	116	60

APPENDIX F

Lower-Intermediate Group-Number of Errors According to RC Types

n	S	DO	IO	Obl.	Gen.
1	4	4	11	10	4
2	6	2	9	11	7
3	3	11	10	11	9
4	1	4	8	7	5
5	6	8	10	9	7
6	2	3	8	7	4
7	3	5	10	9	3
8	5	5	8	11	7
9	3	3	8	9	3
10	7	10	10	10	7
11	7	3	8	9	3
12	10	11	11	10	10
13	1	1	10	9	-
14	7	6	11	10	5
15	3	7	8	10	9
16	0	4	8	9	2
17	2	6	11	10	4
18	3	1	10	8	3
19	3	2	9	9	7
20	5	7	10	10	6
21	5	8	10	10	8
22	3	5	9	9	5
23	8	9	8	9	8
24	6	9	10	10	9
25	3	5	10	10	5
26	4	5	9	11	4
27	4	6	10	9	6
28	8	9	6	9	6
29	3	4	8	11	8
30	7	5	10	11	7
31	5	4	10	10	4
32	6	7	6	7	6
33	4	7	9	9	10
34	2	9	9	10	6
35	5	8	8	8	4
36	1	4	10	9	4
37	2	2	10	10	2
38	4	5	8	8	4
39	2	4	9	8	3
40	1	1	8	5	0
Total	164	219	365	371	214

APPENDIX G

Upper-Intermediate Group-Number of Errors According to RC Types

n	S	DO	IO	Obl.	Gen.
1	-	-	7	4	1
2	1	1	6	5	3
3	-	3	6	6	2
4	-	-	3	5	-
5	-	1	3	4	2
6	-	2	7	10	3
7	1	1	8	6	2
8	1	3	5	10	2
9	5	9	9	9	7
10	1	2	3	5	4
11	2	-	7	5	1
12	-	3	8	9	5
13	-	2	10	9	3
14	1	2	7	9	2
15	-	1	9	7	2
16	-	3	2	4	2
17	-	1	5	3	1
18	-	1	8	7	-
19	2	1	8	9	2
20	2	5	8	9	1
21	3	1	9	7	4
22	1	-	10	8	2
23	-	-	7	7	3
24	2	4	3	3	-
25	1	3	9	5	3
26	-	1	3	3	3
27	-	-	2	3	-
28	-	1	10	10	-
29	2	2	7	6	2
30	1	3	7	7	3
31	1	3	5	10	1
32	1	1	8	9	3
33	1	5	8	3	1
34	-	2	2	5	-
35	-	3	7	5	2
36	-	4	7	8	2
37	1	1	6	6	-
38	1	1	3	3	1
39	-	5	5	9	3
40	3	5	10	10	5
Total	34	86	257	262	83

APPENDIX H

Grammaticality Judgement Test Results

	Lower Intermediate						Upper Intermediate				
	S	DO	IO	Obl	Gen		S	DO	IO	Obl	Gen
1	1	-	3	2	-	1	-	-	2	1	1
2	3	-	1	3	2	2	1	-	2	1	1
3	-	3	2	3	2	3	-	1	1	1	-
4	-	1	2	1	-	4	-	-	1	1	-
5	2	2	2	1	3	5	-	1	2	1	-
6	-	-	1	2	1	6	-	1	2	2	-
7	1	-	2	1	-	7	-	1	1	1	-
8	1	2	1	3	2	8	-	1	1	3	-
9	-	1	1	1	-	9	-	1	1	1	1
10	2	2	3	2	2	10	-	1	2	1	1
11	2	1	1	3	1	11	1	-	1	1	1
12	3	3	3	2	2	12	-	-	2	1	2
13	-	-	2	2	-	13	-	1	2	2	1
14	1	2	3	2	1	14	-	1	1	1	1
15	1	1	1	2	2	15	-	1	1	1	-
16	-	-	1	1	-	16	-	1	1	1	-
17	-	2	3	2	1	17	-	1	1	2	-
18	-	-	2	2	-	18	-	-	1	1	-
19	-	-	1	1	2	19	1	1	2	2	-
20	-	1	2	2	2	20	1	2	1	1	-
21	2	3	2	2	3	21	1	1	1	1	-
22	1	1	2	1	1	22	-	-	2	2	1
23	1	1	-	1	2	23	-	-	1	2	1
24	-	2	2	2	2	24	1	1	1	1	-
25	-	-	2	2	1	25	1	1	1	1	-
26	4	3	2	3	3	26	-	-	2	-	-
27	-	1	2	1	-	27	-	-	1	1	-
28	1	2	-	1	1	28	-	-	2	2	-
29	1	3	1	3	3	29	-	-	1	1	-
30	1	1	2	3	1	30	-	1	1	1	-
31	1	2	2	2	2	31	-	1	1	2	-
32	1	1	-	-	-	32	1	-	-	1	1
33	2	2	1	1	2	33	1	1	-	1	-
34	-	1	1	2	2	34	-	-	1	2	-
35	1	1	2	1	1	35	-	1	-	1	-
36	-	2	2	1	1	36	-	2	1	1	1
37	-	-	2	2	-	37	-	-	1	2	-
38	-	-	1	1	-	38	1	1	1	1	-
39	1	1	2	1	-	39	-	1	2	1	-
40	1	1	1	-	-	40	2	2	2	2	2
Tot.	35	49	66	67	48	Tot.	12	28	50	52	15

GRAMMATICAL JUDGEMENT UPPER GROUP

	SUBJECT				DIR.OBJ.				IND.OBJ.				OBLIGUE				GENETIVE			
	3	7	11	19	4	12	14	18	5	6	15	20	1	8	13	16	2	9	10	17
1	X	.	.	X	.	.	.	X	.	X	.	.
2	X	.	.	.	.	.	.	.	X	.	.	X	.	.	.	X	.	.	X	.
3	X	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.
4	X	.	.	.	X	.	.	.	.
5	X	.	.	.	X	.	.	X	.	.	.	X	.	.	.	.
6	X	.	.	.	X	.	.	X	.	.	X	X	.	.	.	.
7	X	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.
8	X	.	.	.	.	.	.	X	.	X	X	X	.	.	.	.
9	X	.	.	.	X	.	.	.	.	.	.	X	.	.	X	.
10	X	.	.	.	X	.	.	X	.	.	.	X	.	.	.	X
11	X	.	.	.	.	.	.	.	X	.	.	.	.	.	.	X	.	.	X	.
12	X	.	X	.	.	.	.	X	.	.	X	X
13	X	.	.	.	X	X	.	.	.	.	X	X	.	.	.	X
14	X	.	.	.	X	.	.	.	.	.	.	X	.	X	.	.
15	X	.	.	.	.	.	X	.	.	.	.	X	.	.	.	.
16	X	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.
17	X	.	.	.	X	.	.	.	.	.	X	X	.	.	.	.
18	X	.	.	.	X	.	.	.	.
19	X	.	.	.	X	.	.	.	X	.	X	.	.	X	.	X	.	.	.	.
20	.	.	X	.	X	.	.	X	.	.	X	.	.	.	.	X	.	.	.	.
21	X	.	.	.	X	.	.	.	.	.	.	X	.	.	.	X	.	.	.	.
22	X	X	.	.	.	X	X	.	X	.	.
23	X	.	.	.	.	.	X	X	.	X	.	.
24	.	X	.	.	X	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.
25	X	.	.	.	X	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.
26	X	X	.	.	.	.	.	.	.	.
27	X	.	.	.	X	.	.	.	.
28	X	.	.	X	.	.	X	X	.	.	.	.
29	X	.	.	.	.	.	.	X	.	.	.	.
30	X	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.
31	X	.	.	.	X	.	.	.	.	.	X	X	.	.	.	.
32	.	X	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.	X	.	.
33	.	.	.	X	X	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.
34	X	.	.	.	.	X	.	X	.	.	.	.
35	X	.	.	.	.	.	.	.	.	.	.	X	.	.	.	.
36	X	X	.	.	X	.	.	.	.	.	.	X	.	X	.	.
37	X	.	.	.	.	.	X	X	.	.	.	.
38	X	.	.	.	X	.	.	.	X	.	.	.	.	.	.	X	.	.	.	.
39	X	.	.	.	.	X	.	X	.	.	.	X	.	.	.	.
40	.	X	.	X	X	.	.	X	.	X	X	.	.	.	X	X	.	X	.	X

12

28

50

52

15

x= wrong answer

GRAMMATICAL JUDGEMENT LOW GROUP

	SUBJECT				DIR.OBJ.				IND.OBJ.				OBLIGUE				GENETIVE			
	3	7	11	19	4	12	14	18	5	6	15	20	1	8	13	16	2	9	10	17
1	x	.	.	.	.	.	.	.	x	.	x	x	.	.	x	x	.	.	.	.
2	.	x	x	x	.	.	.	.	x	.	.	.	x	x	.	x	.	.	x	x
3	.	.	.	.	x	.	x	x	x	x	.	.	.	x	x	x	.	x	x	.
4	.	.	.	.	x	.	.	.	x	x	.	.	.	.	.	x	.	.	.	.
5	.	x	.	x	x	.	.	x	x	x	.	.	.	.	.	x	.	x	x	x
6	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	x	.	x	.	.
7	x	.	.	.	.	.	.	.	x	.	.	x	.	.	.	x	.	.	.	.
8	x	.	.	.	x	.	.	x	x	.	.	.	x	.	x	x	x	x	.	.
9	.	.	.	.	x	.	.	.	x	.	.	.	.	.	.	x	.	.	.	.
10	.	x	.	x	x	.	.	x	x	x	.	.	.	x	x	.	x	x	.	.
11	x	.	.	x	.	x	.	.	x	.	.	.	x	.	x	x	.	.	.	x
12	.	x	x	x	x	x	x	.	x	x	x	.	x	x	.	.	x	.	x	.
13	.	.	.	.	.	.	.	.	x	x	.	.	.	x	.	x	.	.	.	.
14	.	x	.	.	x	.	.	x	x	.	x	.	.	.	x	x	.	.	x	.
15	.	.	.	x	x	.	.	.	.	x	.	.	.	.	x	x	.	x	x	.
16	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	x	.	.	.	.
17	.	.	.	.	x	.	.	x	x	x	.	x	.	x	.	x	.	.	.	x
18	.	.	.	.	.	.	.	.	.	x	.	x	.	.	x	x	.	.	.	.
19	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	x	.	.	x	x
20	.	.	.	.	.	.	.	x	x	.	.	x	.	.	x	x	.	x	x	.
21	x	.	.	x	x	x	.	x	.	x	.	.	.	.	x	.	.	x	x	x
22	x	.	.	.	.	.	.	x	x	.	.	x	.	.	.	x	.	.	x	.
23	.	.	x	.	.	.	.	x	.	.	.	.	.	.	.	x	.	x	x	.
24	.	.	.	.	x	.	.	x	.	x	x	.	.	.	x	x	.	.	x	x
25	.	.	.	.	.	.	.	.	x	.	.	x	.	.	x	x	.	.	x	.
26	x	x	x	x	.	x	x	x	x	.	.	x	x	x	x	.	.	x	x	x
27	.	.	.	.	x	.	.	.	x	x	.	.	.	.	.	x	.	.	.	.
28	.	.	x	.	x	.	.	x	.	.	.	.	.	.	x	.	.	x	.	.
29	.	.	x	.	x	x	.	x	x	.	.	.	.	x	x	x	.	x	x	x
30	.	x	.	.	.	.	.	x	x	.	.	x	.	.	x	x	x	.	.	x
31	.	.	.	x	x	.	.	x	.	x	.	.	.	.	x	x	.	.	.	x
32	x	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
33	.	x	.	x	x	.	.	x	.	.	.	x	.	.	.	x	x	.	x	.
34	.	.	.	.	x	.	.	.	.	.	x	.	.	.	x	x	.	x	.	x
35	.	x	.	.	.	.	x	.	x	.	x	.	.	.	.	x	.	.	.	x
36	.	.	.	.	x	.	.	x	.	x	.	x	.	.	.	x	.	.	x	.
37	.	.	.	.	.	.	.	.	.	.	x	x	.	.	.	x	x	.	.	.
38	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	x	.	.	.
39	x	.	.	.	x	.	.	.	x	.	.	x	.	.	.	.	x	.	.	.
40	.	x	.	.	x	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.

35

49

66

67

48

x= wrong answer

APPENDIX I

Sentence Combining Task Results

	Lower Intermediate							Upper Intermediate					
	S	DO	IO	Obl	Gen	S		DO	IO	Obl	Gen		
1	1	2	4	4	-	1	-	-	1	-	-		
2	1	2	4	4	2	2	-	1	1	1	-		
3	2	4	4	4	3	3	-	2	1	3	-		
4	-	1	2	3	1	4	-	-	1	3	-		
5	1	3	4	4	-	5	-	-	-	1	-		
6	1	3	4	2	-	6	-	1	1	4	-		
7	1	1	4	4	-	7	1	-	3	2	-		
8	2	2	3	4	3	8	1	2	-	4	-		
9	2	2	4	4	-	9	2	4	4	4	2		
10	2	4	3	4	1	10	-	1	-	-	-		
11	2	2	3	3	-	11	1	-	3	1	-		
12	3	4	4	4	4	12	-	1	3	4	-		
13	1	1	4	4	-	13	-	1	4	4	-		
14	4	2	4	4	2	14	1	1	3	4	-		
15	1	2	3	4	3	15	-	-	4	2	-		
16	-	3	4	4	-	16	-	2	-	1	-		
17	2	4	4	4	1	17	-	-	1	-	1		
18	1	-	4	2	2	18	-	1	4	3	-		
19	1	1	4	4	2	19	1	-	4	4	-		
20	2	3	4	4	2	20	1	3	3	4	-		
21	1	3	4	4	3	21	1	-	4	3	2		
22	-	2	3	4	2	22	-	-	4	4	-		
23	3	4	4	4	2	23	-	-	4	3	-		
24	3	4	4	4	4	24	1	3	2	1	-		
25	1	3	4	4	1	25	-	2	4	1	-		
26	-	2	3	4	1	26	-	1	-	1	-		
27	3	4	4	4	3	27	-	-	-	1	-		
28	4	4	2	4	2	28	-	1	4	4	-		
29	1	1	3	4	2	29	2	2	3	1	1		
30	3	3	4	4	3	30	-	2	3	3	1		
31	2	2	4	4	-	31	1	2	1	4	-		
32	2	3	2	3	2	32	-	1	4	4	-		
33	2	4	4	4	4	33	-	3	4	-	-		
34	-	4	4	4	-	34	-	-	-	-	-		
35	2	4	2	3	-	35	-	2	3	1	-		
36	-	2	4	4	-	36	-	1	4	4	-		
37	-	2	4	4	-	37	1	1	2	2	-		
38	1	1	3	3	-	38	-	-	-	-	-		
39	-	3	3	3	-	39	-	3	2	4	1		
40	-	-	3	2	-	40	-	1	4	4	-		
Tot.	58	101	142	148	55	Tot.	14	45	93	94	8		

SENTENCE COMBINING UPPER GROUP

	SUBJECT				DIR.OBJ				IND.OBJ.				OBLIGUE				GENETIVE			
	1	8	12	17	6	10	14	18	2	5	11	13	4	9	16	19	3	7	15	20
1	x	.	.	.	.	.	.	.	.	.	.
2	x	.	x	.	.	.	.	x	.	.	.	.	.
3	x	.	x	x	.	.	.	x	x	x	.	.	.	.	.
4	x	.	x	.	x	x	.	.	.	.
5	x	.	.	.	.	.
6	x	.	.	x	.	.	x	x	x	x	.	.	.	.
7	.	.	x	.	.	.	.	.	.	x	x	x	.	.	x	x	.	.	.	.
8	x	.	.	.	x	.	x	.	.	.	.	.	x	x	x	x	.	.	.	.
9	x	.	x	.	x	x	x	x	x	x	x	x	x	x	x	x	x	.	.	x
10	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.
11	x	.	.	.	.	.	.	.	.	x	x	x	.	.	x	.	.	.	.	.
12	x	.	x	.	x	x	x	x	x	x	.	.	.	.
13	x	.	.	x	x	x	x	x	x	x	x	.	.	.	.
14	x	.	.	.	.	.	.	x	x	x	.	.	x	x	x	x	.	.	.	.
15	x	x	x	x	x	.	x	.	.	.	.	.
16	x	.	x	.	.	.	.	.	.	x	.	.	.	.	.
17	x	.	.	.	.	.	.	.	x
18	x	.	.	.	x	x	x	x	.	x	x	x	.	.	.	.
19	.	.	.	x	.	.	.	.	x	x	x	x	x	x	x	x	.	.	.	.
20	x	.	.	.	x	x	.	x	.	x	x	x	x	x	x	x	.	.	.	.
21	.	.	x	.	.	.	.	.	x	x	x	x	.	x	x	x	x	x	.	.
22	x	x	x	x	x	x	x	x	.	.	.	.
23	x	x	x	x	.	x	x	x	.	.	.	.
24	.	.	x	.	.	x	x	x	.	.	x	x	.	.	x	.	.	.	.	.
25	x	.	x	x	x	x	x	.	.	x	.	.	.	.	.
26	x	.	.	.	.	.	.	x	.	.	.	.	.
27	x	.	.	.	.	.
28	x	.	.	.	x	x	x	x	x	x	x	x	.	.	.	.
29	x	.	x	.	.	.	x	x	x	x	.	x	.	.	x	.	.	.	.	x
30	x	.	x	x	.	x	x	x	x	.	.	.	.	.	x
31	x	.	.	.	.	.	x	x	.	.	.	x	x	x	x	.	.	.	.	.
32	x	x	x	x	x	x	x	x	x	.	.	.	.
33	x	x	x	.	x	x	x	x	.	.	.	.	.	.	.	.
34
35	x	.	x	.	x	x	x	.	.	x	.	.	.	.	.
36	x	x	x	x	x	x	x	x	x	.	.	.	.
37	x	.	.	.	.	.	.	x	.	.	x	x	x	x	.	.	.	.	.	.
38
39	x	x	x	.	.	x	x	x	x	x	x	.	.	.	x
40	x	.	.	x	x	x	x	x	x	x	x	.	.	.	.

14

45

93

94

8

x= wrong answer

SENTENCE COMBINING LOW GROUP

	SUBJECT				DIR.OBJ.				IND.OBJ.				OBLIGUE				GENETIVE			
	1	8	12	17	6	10	14	18	2	5	11	13	4	9	16	19	3	7	15	20
1	x	.	.	.	.	x	.	x	x	x	x	x	x	x	x	.	.	.	.
2	.	.	x	.	.	x	.	x	x	x	x	x	x	x	x	.	x	.	x	
3	x	.	x	.	x	x	x	x	x	x	x	x	x	x	x	x	.	x	x	
4	.	.	.	.	.	.	.	x	x	.	x	.	.	x	x	x	.	.	x
5	.	.	x	.	.	x	x	x	x	x	x	x	x	x	x	x	.	.	.	
6	.	.	x	.	.	x	x	x	x	x	x	x	.	.	x	x	.	.	.	
7	.	.	x	.	.	x	.	.	x	x	x	x	x	x	x	x	.	.	.	
8	.	.	x	x	.	x	.	x	x	.	x	x	x	x	x	.	x	x	x	
9	x	.	x	.	.	x	.	x	x	x	x	x	x	x	x	.	.	.	.
10	x	.	x	.	x	x	x	x	.	x	x	x	x	x	x	x	.	.	x	
11	x	.	x	.	.	x	.	x	x	.	x	x	.	x	x	x	.	.	.	
12	x	x	x	.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
13	.	.	x	.	.	x	.	.	x	x	x	x	x	x	x	.	.	.	.
14	x	x	x	x	.	x	.	x	x	x	x	x	x	x	x	.	x	.	x	
15	.	.	x	.	.	x	.	x	.	x	x	x	x	x	x	x	.	.	x	
16	.	.	.	.	.	x	x	x	x	x	x	x	x	x	x	.	.	.	.
17	x	.	x	.	x	x	x	x	x	x	x	x	x	x	x	.	.	x	.	
18	.	.	.	x	.	.	.	.	x	x	x	x	.	.	x	x	x	.	x
19	.	.	x	.	.	x	.	.	x	x	x	x	x	x	x	x	.	.	x	
20	.	.	x	x	.	x	x	x	x	x	x	x	x	x	x	.	.	x	x	
21	x	.	.	.	.	x	x	x	x	x	x	x	x	x	x	x	.	x	x
22	.	.	.	.	.	x	x	.	.	x	x	x	x	x	x	x	.	.	x
23	x	x	x	.	x	x	x	x	x	x	x	x	x	x	x	x	.	.	x	
24	.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
25	.	.	x	.	.	x	x	x	x	x	x	x	x	x	x	.	.	.	x	
26	.	.	.	.	.	x	.	x	.	x	x	x	x	x	x	.	.	x	.
27	x	.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	.	.	x	
28	x	x	x	x	x	x	x	x	.	x	x	.	x	x	x	x	.	x	x	
29	.	.	x	.	.	x	.	.	x	.	x	x	x	x	x	.	.	x	x	
30	x	.	x	x	.	x	x	x	x	x	x	x	x	x	x	x	.	.	x	
31	x	.	x	.	x	x	.	.	x	x	x	x	x	x	x	.	.	.	.
32	.	.	x	x	.	x	x	x	.	.	x	x	.	x	x	x	.	.	x	
33	.	x	x	.	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
34	.	.	.	.	x	x	x	x	x	x	x	x	x	x	x	.	.	.	.
35	x	.	x	.	x	x	x	x	x	x	.	.	x	.	x	x	.	.	.	
36	.	.	.	.	.	.	x	x	x	x	x	x	x	x	x	.	.	.	.
37	.	.	.	.	.	x	.	x	x	x	x	x	x	x	x	.	.	.	.
38	x	.	.	.	.	.	.	x	x	x	.	.	x	x	x	.	.	.	.
39	.	.	.	.	.	x	x	x	x	.	x	x	.	x	x	x	.	.	.
40	.	.	.	.	.	.	.	.	x	x	.	x	.	.	x	x	.	.	.

58

101

142

148

55

x= wrong answer

APPENDIX J

Translation Task Results

	Lower Intermediate						Upper Intermediate					
	S	DO	IO	Obl	Gen		S	DO	IO	Obl	Gen	
1	2	2	4	4	4		1	-	-	4	3	-
2	2	-	4	4	3		2	-	-	3	3	2
3	1	4	4	4	4		3	-	-	4	2	2
4	1	2	4	3	4		4	-	-	1	1	-
5	3	3	4	4	4		5	-	-	1	2	2
6	1	-	3	4	3		6	-	-	4	4	3
7	1	4	4	4	3		7	-	-	4	3	2
8	2	1	4	4	2		8	-	-	4	3	2
9	1	-	3	4	3		9	3	4	4	4	4
10	3	4	4	4	4		10	1	-	1	4	3
11	3	-	4	3	2		11	-	-	3	3	-
12	4	4	4	4	4		12	-	2	3	4	3
13	-	-	4	3	-		13	-	-	4	3	2
14	2	2	4	4	2		14	-	-	3	4	1
15	1	4	4	4	4		15	-	-	4	4	2
16	-	1	3	4	2		16	-	-	1	2	2
17	-	-	4	4	2		17	-	-	3	1	-
18	2	1	4	4	1		18	-	-	3	3	-
19	2	1	4	4	3		19	-	-	2	3	2
20	3	3	4	4	2		20	-	-	4	3	1
21	2	2	4	4	2		21	1	-	4	3	2
22	2	2	4	4	2		22	1	-	4	3	1
23	4	4	4	4	4		23	-	-	2	2	2
24	3	3	4	4	3		24	-	-	-	1	-
25	2	2	4	4	3		25	-	-	4	3	3
26	-	-	4	4	-		26	-	-	1	2	3
27	1	1	4	4	3		27	-	-	1	1	-
28	3	3	4	4	3		28	-	-	4	4	-
29	1	-	4	4	3		29	-	-	3	4	1
30	3	1	4	4	3		30	1	-	3	3	2
31	2	-	4	4	2		31	-	-	3	4	1
32	3	3	4	4	4		32	-	-	4	4	2
33	-	1	4	4	4		33	-	1	4	2	1
34	2	4	4	4	4		34	-	2	1	3	-
35	2	3	4	4	3		35	-	-	4	3	2
36	1	-	4	4	3		36	-	1	2	3	1
37	2	-	4	4	2		37	-	-	3	2	-
38	3	4	4	4	4		38	-	-	2	2	1
39	1	-	4	4	3		39	-	1	1	4	2
40	-	-	4	3	-		40	1	2	4	4	3
Tot.	71	69	157	156	111		Tot.	8	13	114	116	60

TRANSLATION UPPER GROUP

	SUBJECT				DIR.OBJ.				IND.OBJ.				OBLIGUE				GENETIVE			
	1	4	15	18	7	9	10	14	2	8	13	17	5	6	12	19	3	11	16	20
1	X	X	X	X	.	X	X	X	.	.	.	.
2	X	.	X	X	X	.	X	X	X	X	X	.
3	X	X	X	X	.	.	X	X	X	.	.	X
4	X	.	.	.	.	.	.	X	.	.	.	.
5	X	.	.	.	.	X	.	X	X	.	X	X
6	X	X	X	X	X	X	X	X	X	X	X	X
7	X	X	X	X	X	.	X	X	.	X	.	X
8	X	X	X	X	X	.	X	X	X	X	.	.
9	X	X	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10	.	.	.	X	.	.	.	.	X	.	.	.	X	X	X	X	X	X	.	X
11	X	X	X	.	X	.	X	X	.	.	.	.
12	X	X	.	.	X	X	X	X	X	X	X	X	X	.	X
13	X	X	X	X	X	.	X	X	X	X	.	.
14	X	X	.	X	X	X	X	X	.	.	.	X
15	X	X	X	X	X	X	X	X	X	.	.	X
16	X	.	.	.	.	X	.	X	.	X	.	X
17	X	X	X	X	X	.	.	.	.	.	.
18	X	X	.	X	X	.	X	X	.	.	.	.
19	X	.	.	X	X	.	X	X	X	.	.	X
20	X	X	X	X	X	.	X	X	.	.	.	X
21	.	.	.	X	.	.	.	.	X	X	X	X	X	.	X	X	X	X	.	.
22	.	.	.	X	.	.	.	.	X	X	X	X	X	X	X	.	X	.	.	.
23	X	X	.	.	X	.	.	X	X	X	.	.
24	X	.	.	.	.	.
25	X	X	X	X	X	.	X	X	X	X	.	X
26	X	X	X	.	.	X	X	.	X
27	X	.	.	.	.	.	X	.	.	.	.	.
28	X	X	X	X	X	X	X	X	X	.	.	.
29	X	X	.	X	X	X	X	X	X	.	.	.
30	.	.	.	X	.	.	.	.	X	X	.	X	.	X	X	X	X	X	.	.
31	X	.	X	X	X	X	X	X	X	.	.	.
32	X	X	X	X	X	X	X	X	X	X	.	.
33	X	.	X	X	X	X	X	.	.	X	.	X	.	.
34	X	X	.	.	.	.	X	X	X	.	X	.	.	.	.
35	X	X	X	X	X	X	.	X	X	.	.	.
36	X	.	.	X	X	.	.	X	.	X	X	X	.	.	.
37	X	X	.	X	X	.	.	X	.	.	.	.
38	X	.	X	.	.	.	X	X	X	.	.	.
39	X	.	.	.	X	.	.	X	X	X	X	X	X	.	.
40	.	.	X	.	X	.	X	.	X	X	X	X	X	X	X	X	X	X	.	X

8

13

114

116

60

x= wrong answer

TRANSLATION TASK LOW GROUP

	SUBJECT				DIR.OBJ.				INDR.OBJ.				OBLIGUE				GENETIVE			
	1	4	15	18	7	9	10	14	2	8	13	17	5	6	12	19	3	11	16	20
1	.	.	X	X	X	X	.	.	X	X	X	X	X	X	X	X	X	X	X	X
2	.	.	X	X	.	.	.	.	X	X	X	X	X	X	X	X	X	.	X	X
3	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4	.	.	.	X	.	X	X	.	X	X	X	X	X	.	X	X	X	X	X	X
5	.	X	X	X	X	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6	.	.	.	X	.	.	.	.	.	X	X	X	X	X	X	X	X	.	X	X
7	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	.	X	X
8	.	X	.	X	.	.	.	X	X	X	X	X	X	X	X	X	X	.	.	X
9	.	.	.	X	.	.	.	.	X	X	.	X	X	X	X	X	X	.	X	X
10	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11	X	.	X	X	.	.	.	.	X	X	X	X	X	.	X	X	.	X	.	X
12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13	.	.	.	.	.	.	.	.	X	X	X	X	X	.	X	X	.	.	.	.
14	.	.	X	X	.	X	X	.	X	X	X	X	X	X	X	X	.	.	X	X
15	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16	.	.	.	.	.	.	.	X	.	X	X	X	X	X	X	X	X	.	X	.
17	.	.	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	.	.
18	.	X	.	X	X	.	.	.	X	X	X	X	X	X	X	X	X	.	X	.
19	.	X	.	X	.	.	.	X	X	X	X	X	X	X	X	X	X	X	.	X
20	X	.	X	X	X	X	.	X	X	X	X	X	X	X	X	X	.	.	X	X
21	X	.	.	X	X	X	.	.	X	X	X	X	X	X	X	X	.	.	X	X
22	.	X	.	X	X	X	.	.	X	X	X	X	X	X	X	X	.	.	X	X
23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
24	X	.	X	X	.	X	X	X	X	X	X	X	X	X	X	X	X	.	X	X
25	X	.	.	X	X	.	X	.	X	X	X	X	X	X	X	X	X	X	X	.
26	.	.	.	.	.	.	.	.	X	X	X	X	X	X	X	X	.	.	.	.
27	.	.	.	X	.	.	X	.	X	X	X	X	X	X	X	X	X	X	X	.
28	X	X	.	X	X	X	X	.	X	X	X	X	X	X	X	X	X	X	.	X
29	.	.	.	X	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	.
30	X	X	.	X	X	.	.	.	X	X	X	X	X	X	X	X	X	X	.	X
31	.	X	.	X	.	.	.	.	X	X	X	X	X	X	X	X	X	X	.	.
32	X	X	.	X	X	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
33	.	.	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	X	X	X
34	.	X	X	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
35	.	.	X	X	X	X	X	.	X	X	X	X	X	X	X	X	X	X	X	.
36	.	.	X	.	.	.	.	.	X	X	X	X	X	X	X	X	X	X	.	X
37	X	X	.	.	.	.	.	.	X	X	X	X	X	X	X	X	.	X	.	X
38	.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
39	.	.	.	X	.	.	.	.	X	X	X	X	X	X	X	X	X	X	.	X
40	.	.	.	.	.	.	.	.	X	X	X	X	X	.	X	X	.	.	.	.

71

69

157

156

111

x= wrong answer

APPENDIX K

Lower-Intermediate Group RC Hierarchy

1	S	DO	GEN	OBL	IO
2	DO	S	GEN	IO	OBL
3	S	GEN	IO	DO	OBL
4	S	DO	GEN	OBL	IO
5	S	GEN	DO	OBL	IO
6	S	DO	GEN	OBL	IO
7	S	GEN	DO	OBL	IO
8	S	DO	GEN	IO	OBL
9	S	DO	GEN	IO	OBL
10	S	GEN	DO	IO	OBL
11	DO	GEN	S	IO	OBL
12	S	GEN	OBL	DO	IO
13	GEN	S	DO	OBL	IO
14	GEN	DO	S	OBL	IO
15	S	DO	IO	GEN	OBL
16	S	GEN	DO	IO	OBL
17	S	GEN	DO	OBL	IO
18	DO	S	GEN	OBL	IO
19	DO	S	GEN	IO	OBL
20	S	GEN	DO	IO	OBL
21	S	DO	GEN	IO	OBL
22	S	DO	GEN	IO	OBL
23	S	IO	GEN	DO	OBL
24	S	DO	GEN	IO	OBL
25	S	DO	GEN	IO	OBL
26	S	GEN	DO	IO	OBL
27	S	DO	GEN	OBL	IO
28	GEN	IO	S	DO	OBL
29	S	DO	IO	GEN	OBL
30	DO	S	GEN	IO	OBL
31	DO	GEN	S	IO	OBL
32	S	IO	GEN	DO	OBL
33	S	DO	IO	OBL	GEN
34	S	GEN	DO	IO	OBL
35	GEN	S	DO	IO	OBL
36	S	DO	GEN	OBL	IO
37	S	DO	GEN	IO	OBL
38	S	GEN	DO	IO	OBL
39	S	GEN	DO	OBL	IO
40	GEN	S	DO	OBL	IO

APPENDIX L

Upper-Intermediate Group RC Hierarchy

1	S	DO	GEN	OBL	IO
2	S	DO	GEN	OBL	IO
3	S	GEN	DO	IO	OBL
4	S	DO	GEN	IO	OBL
5	S	DO	GEN	IO	OBL
6	S	DO	GEN	IO	OBL
7	S	DO	GEN	OBL	IO
8	S	GEN	DO	IO	OBL
9	S	GEN	DO	IO	OBL
10	S	DO	IO	GEN	OBL
11	DO	GEN	S	OBL	IO
12	S	DO	GEN	IO	OBL
13	S	DO	GEN	OBL	IO
14	S	DO	GEN	IO	OBL
15	S	DO	GEN	OBL	IO
16	S	IO	GEN	DO	OBL
17	S	DO	GEN	OBL	IO
18	S	GEN	DO	OBL	IO
19	DO	S	GEN	IO	OBL
20	GEN	S	DO	IO	OBL
21	DO	S	GEN	OBL	IO
22	DO	S	GEN	OBL	IO
23	S	DO	GEN	IO	OBL
24	GEN	S	IO	OBL	DO
25	S	DO	GEN	OBL	IO
26	S	DO	IO	OBL	GEN
27	S	DO	GEN	IO	OBL
28	S	GEN	DO	IO	OBL
29	S	DO	GEN	OBL	IO
30	S	DO	GEN	IO	OBL
31	S	GEN	DO	IO	OBL
32	S	DO	GEN	IO	OBL
33	S	GEN	OBL	DO	IO
34	S	GEN	DO	IO	OBL
35	S	GEN	DO	OBL	IO
36	S	GEN	DO	IO	OBL
37	GEN	S	DO	IO	OBL
38	S	DO	GEN	IO	OBL
39	S	GEN	DO	IO	OBL
40	S	DO	GEN	IO	OBL

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