

İNGİLİZCE İLĞİ TÜMCELERİNİN EDİNİLMESİ: ANADİLİ TÜRKÇE VE LEHÇE OLAN ÖĞRENCİLER**Nuriye Karakaya YILDIRIM¹****Öz**

Çalışma, İngilizce öğrenen Türkler için İngilizce ilgi tümcelerinin (Relative clause; RC) ediniminde öngörülebilir bir sıra olup olmadığını Ad Öbeđi Erişilebilirlik Hiyerarşisi (NPAH) hipotezi (Keenan & Comrie, 1977) kullanarak arařtırmaktadır. Aynı zamanda anadili Türkçe olan ve anadili Lehçe olan kişiler arasında İngilizce ilgi tümcelerinin edinim sıralamasında bir farklılık olup olmadığını inceler. Bu amaçla 20 Türkçe ve 20 Lehçe İngilizce bölümü öğrencisi katılımcı olarak çalışmaya alınmıştır. İki grubun bir cümle kombinasyonu ve bir gramer yargı testi yoluyla toplanan verileri üzerinde bağımsız örneklem t-testleri yapıldı. Ayrıca çalışmada Lehçe ve Türkçe öğrenen öğrencilerin ilgi tümceleri hataları karşılaştırılmıştır. Sonuçlar, Türk öğrencilerin yabancı dil olarak İngilizcede ilgi tümcelerinin edinimindeki işleme zorluklarını anlamamıza katkıda bulunmaktadır. Bulgular, NPAH hipotezinin bu belirli verilerde tam olarak desteklenmediđini gösterdi. Bununla birlikte, ilgi tümcesi açısından, sonuçlar Baysal'ın (2001) Anadili Türkçe olanlarda İngilizce ilgi tümcesinin normalde var olan hiyerarşiyi ihlal ettiđini ortaya koyan çalışmasıyla uyumluydu. IO RC (dolaylı nesne cümlesi) türünde, iki grup anlamlı farklılıklar gösterdi. Grupların hata analizine dayanarak, İngilizce dil öğretiminde ana dilin dikkate alınması gerektiđi öne sürülmüştür. Ayrıca grupların RC'leri öğrenirken yaptıkları hataların türü ve miktarı açısından farklılık gösterdiđi sonucuna varılmıştır.

Anahtar Kelimeler: İsim Öbeđi Erişilebilirlik Hiyerarşisi; İlgili Tümceleri, Anadili Türkçe Olan Kişiler; Ana Dili Lehçe Olan Kişiler

ACQUISITION OF ENGLISH RELATIVE CLAUSES BY TURKISH AND POLISH SPEAKERS**Abstract**

The study investigates whether there is a predictable order in the acquisition of English relative clauses for the Turkish learners of English using Noun Phrase Accessibility Hierarchy (NPAH) hypothesis (Keenan & Comrie, 1977). At the same time, it examines whether there is a difference in the acquisition order of English relative clauses between Turkish native speakers and Polish native speakers. For this aim 20 Turkish and 20 Polish English language department students were recruited in the study as participants. Independent samples t-tests were run on the two group's data which were gathered through a sentence combination and a grammatical judgement test. Additionally, English learners of Polish and Turkish students' relative clause errors were compared in the study. The results contribute our understanding of Turkish students' processing difficulties in the acquisition of relative clauses in English as a foreign

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language. The findings indicated that NPAH hypothesis is not fully supported in this particular data. However, in terms of genitive RC (whose), the results were in accordance with Baysal's (2001) study which puts forth that in Turkish Native speakers, genitive RC violates otherwise existing hierarchy. Furthermore, in the IO RC (indirect object relative clause) type, the two groups showed meaningful differences. Based on the error analysis of the groups, it is concluded that English learners of Polish and Turkish participants differ in the type and quantity of errors that they are making while learning RCs, suggesting first language should be taken into consideration in English language instruction.

Keywords: noun phrase accessibility hierarchy; relative clauses; Turkish native speakers, Polish native speakers

Introduction

The studies on the natural order of inter-language development, provide ample and convincing evidence as to the idea that there are acquisitional sequences and they must be taken into account in instructional design (Doughty, 1988). Additionally, it has been shown that first language has an influence on the developmental sequences of the second language acquisition (Spada & Lightbrown, 1999; Zhanming, 2014). This study aims to find whether there is a predictable order in the acquisition of English relative clauses by Turkish speakers. In order to test this, Noun Phrase Accessibility Hierarchy (Keenan & Comrie, 1977) was used in the study. Additionally, it was aimed to explore the effect of native language on the acquisition order of relative clauses. Relative clause structures have been investigated in literature in terms of universals (Svantesson, 1986, Hansen, 1986). The interest in this structure stems from its universality in languages, its frequency and usefulness in everyday speech (Izumi, 2003).

Literature review

Noun Phrase Accessibility Hierarchy (NPAH) was first put forward by Keenan and Comrie in 1977 after examining 50 languages. NPAH proposes that there is a hierarchical order in the grammatical relations, subject being the higher one in the hierarchy. Since higher levels are easier to access in relativization process, they are learned easily and earlier than other types which are at a lower level in Accessibility Hierarchy (AH). The hierarchy is as follows: SU (subject relativization) > DO (direct object relativization) > IO (indirect object relativization) > OBL (oblique object relativization) > GEN (genitive relativization) > OCOMP (object of comparison relativization). According to this theory the language may allow subject relativization and may not others which are lower in the hierarchy. However; if a language allows oblique object relativization, it also has to allow direct object relativization which is higher in the hierarchy, thus easier to acquire (Comrie, 1977). The studies conducted by King & Just (1991); King & Kutas (1995); Traxler, Morris & Seely (2002) are consistent with the NPAH (as cited in Kanno, 2007). Diessel & Tomasello (2005) discovered that the order of relative clause acquisition in production matches the Accessibility Hierarchy in English and German speaking children. Ansell & Flowers (1982), Caplan & Futter (1986), Grodzinsky Piñango, Zurif, & Draï (1999), and Hickok & Avrutin (1996), also found that in the case of L1, aphasia patients follow the order of NPAH while comprehending the RCs from easier to harder (as cited in Gass & Lee, 2007).

In Izumi's (2003) study the sentence combination test and the grammaticality judgment test with regard to the SU versus DO/OPREP distinction was supported in the sentence combination test and the grammaticality judgment test results, but DO versus OPREP

distinction was not supported in the data.

Hogbin & Song (2007) studied written language in terms of the occurrence frequency of relative clauses. They have chosen 3 books from 18th and 20th century. In the 18th century books, the frequency of Relative clauses was from most to least frequent: S-RCs (relativization on intransitive subject), DO-RCs (relativization on direct object), OBL-RCs (relativization on oblique), A-RCs (relativization on transitive subject), and GEN-RCs (relativization on genitive). There was no IO-RCs (relativization on indirect object) observed. In 20th century the order was (from most to least frequent): DO-RCs, S-RCs, OBL-RCs, A-RCs, and GEN-RCs. There are other studies which presents problematic results for NPAH. Hamilton (1995) pointed the studies in which there is no developmental distinction between indirect object and oblique object.

Gass & Lee (2007) explained that NPAH didn't take into account gapless relative clauses and noun modifying phrases and this is to blame for the mixed results in the studies. Another consideration which will explain the mixed results and at the same time restrict the applicability of NPAH is that Asian languages do not involve a dependency between the noun head of the RC and a grammatical position in the clause which eliminated the NPAH since there is no head-complement dependency (Hawkins, 2007).

The dominance of European languages in NPAH research, led Ozeki & Shirai (2007) to conduct a study about relative clause acquisition order in Japanese language. The difference was the animacy. It was reported that animacy was the main factor determining which type of RCs should be used in Japanese. "NPAH does not predict the difficulty order of Japanese RCs, and that learners use different types of RCs based on the animacy of the head noun" (Ozeki & Shirai, 2007 p.170). Sasaki (1991) revealed that both English-speaking learners of Japanese and Japanese-speaking learners of English took the animacy cues as reference more than NPAH (as cited in Kanno, 2007).

Another factor that accounts for the difference between European languages and languages such as Japanese, Korean and Chinese is that the former languages include post nominal Relative clauses (RCs) whereas the latter group include pre nominal RCs. The studies conducted in the pre- nominal RC languages yielded the following results: Tarallo & Myhill (1983) revealed that in pronominal languages which were Chinese and Japanese in the study, direct object relativization was easier than subject relativization (as cited in Ozeki & Shirai, 2007). The other studies on nominal languages, also gave results which are somewhat deviant from the NPAH. Sakamoto & Kobata (2000) indicated that RCs in SU, DO, and IO, relative clause types were in compliance with NPAH; however, Oblique RC which is predicted to happen at later stages in the NPAH appeared earlier in the hierarchy. Roberts (2000) also conducted a study with the L1 Japanese learners of L1 English speakers. The acquisition order of RCs is represented as: IO > DO>GEN> OBL> SU. Kanno (2000; 2001), on the other hand, found results that are compatible with NPAH. His study only included SU and DO and learners interpreted SU RCs easier than DO (as cited in Ozeki & Shirai, 2007).

The findings discussed about the inapplicability of NPAH to Asian languages are also confirmed by Comrie (1998). He revisits the NPAH and states that the notions in the theory may be inapplicable to the languages of Japanese type (Comrie, 1998).

Baysal (2001) examined the acquisition order of relative clauses in upper intermediate Turkish learners. The results of her study showed that except from the genitive relative clause,

the RCs are in accordance with the NPAH. Gas's (1979) also attained similar results related to NPAH. In the study the only relative clause type which went against the NPAH was genitive. Gass & Selinker (1983) explained the reason as: The genitive relative pronoun marker is quite evident therefore it makes the relativization of genitive easier, positioning it on a higher level in Accessibility Hierarchy.

Other studies that investigated English relative clause acquisition by Turkish speakers involved Bulut's (2011) study with 9- 10-year-old Turkish speaking children learning English. The results showed that the participants follow the hierarchy proposed by NPAH and that the learners process subject relative clauses easier than object relative clauses.

Similar to English Relative clauses, in Özge, Marinis, & Zeyrek's (2009) study on monolingual Turkish children aged 5-8, the participants demonstrated lower accuracy in the comprehension of object RC compared to subject RC in Turkish. Even though Subject RCs were understood at a very early age, object RC comprehension only got better with age.

Aydın's (2006) study also found similar results with intermediate level Korean, Japanese and English L1 participants who are learning Turkish as L2. The comprehension of Subject RCs was easier than Object RCs. However, for early learners there was no difference between RC types. Considering Korean and Japanese relative clause structure's similarity to Turkish and the differences in the Turkish and English relative clause construction, Aydın looked at the effect of L1 on L2 relative clause acquisition. However, this study concluded that there is no L1 effect on the performance of RCs, as there was no significant difference between the participants with different native languages.

Flynn, Foley & Vinnitskaya, (2004) also found that L1 does not play a privileged role in subsequent acquisition of relative clauses with Kazakh and Russian L1 participants who are learning English as L3.

In summary, studies have shown that Turkish L1 speakers who are learning English as L2 complied with the NPAH (Bulut 2011) except for genitive clause (Baysal 2001, Gass, 1979). Secondly, there is no significant effect of L1 on the acquisition of relative clauses (Flynn, Foley & Vinnitskaya, 2004; Aydın, 2006). In order to confirm or refute NPAH on this particular data, and to see whether there is a significant difference between the L1 Polish and Turkish speakers in the acquisition of English relative clauses, two research questions were defined as follows.

Research questions

- (1) Is there a predictable order in the acquisition of relative clauses in English as a second language for the Turkish speakers?
- (2) Is there an effect of first language on the acquisition order of relative clauses in a second language?

In order to answer the second question, Polish speakers of English learners have been chosen as the control group. Polish and Turkish group have been chosen for the study based on the criteria that Polish is a Slavic language under the group European languages. Turkish is a member of Altaic languages. Previous studies laid that the Asian languages like Japanese, Chinese and Turkish has some different features than the European Languages such as gapless relatives, attributiveness etc. which causes restrictions in the applicability of NPAH theory (Ozeki & Shirai, 2007; Hawkins, 2007; Gass & Lee, 2007). There are also pre- post nominal RC differences between the languages. "Head-initial languages with verb-object and

preposition -NP order (e.g., English) typically have post nominal RCs. In contrast, head-final languages with object-verb and NP-postposition order (e.g., Japanese) typically have pre nominal RCs” (Kanno, 2007, p. 202). Complying with the statement, Turkish has pre-nominal RCs on the other hand Polish has post- nominal RCs.

A polish sentence with relative clause:

- (1) Marysia zna chłopcow, których Ania lubi.

Mary knows boys who Ann likes

“Mary knows some boys who Ann likes” (Szczegielniak, 2006, p. 373)

- (2) Meryem Ayşe'nin sevdiği bazı çocukları tanıyor.

Meryem Ayşe likes some boys know

“Meryem knows some boys who Ayşe likes.

A language’s having pre or post nominal RCs, has an effect on RC processing (Hawkins, 2007; Kanno, 2007). Pre nominal RCs follow the gap-filler order in relative clause structures; however, the order is filler gap in post nominal RCs. Hawkins (1999) proposed that the order of filler/gap in native language creates a parser favour while learning a second language which has the same order (as cited in Kanno, 2007).

Method

Participants and setting

The participants of the study are 40 university students. 20 of the participants are Turkish speakers of second year Translation Department students at a public university in Turkey. The other 20 participants are Polish speakers of English Language Department students at a public university in Poland. The age range of the participants is between 18 and 21. In both groups the tasks (Grammar Judgment and Sentence Combination) are carried out in a lesson hour under the supervision of a teacher in a class environment.

Data collection instruments

In the study, in order to elicit the data of the acquisition order of RC types in English, a “sentence combination task” and a “grammar judgment task” is used respectively in both groups of participants. The data collection tools are adapted from Baysal’s 2001 study on Noun Phrase Accessibility Hierarchy (Baysal, 2001). In the 20 item-sentence combination tasks, the subjects are asked to combine the two sentences presented in the questions using “who, which whom, whose, and that”. Any answer that was deviant from the correct answer was evaluated as incorrect. The item distribution of the RC types in the task is presented in Table 1.

Table 1 The item distribution in Sentence Combination Task

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

The second data tool, the grammatical judgment task also included 20 items which included sentences with relative clause structure. The students are instructed to indicate whether the sentences are grammatically correct or not by checking or crossing the box next to the items. The students are not asked to correct any of the ungrammatical sentences at the task.

There were grammatically 10 correct and 10 incorrect sentences in the grammatical judgement task. There was 2 grammatically correct and 2 grammatically incorrect items for each category of RCs, Grammaticality judgment task is used to measure the intuition of the learners. Having been used in a good number of studies (Ioup et al., 1977; Gass, 1979, 1980; Izumi, 2003). It is incorporated as a standard method in SLA studies (Xiaorong, 2007). Item distribution of the RC types in the Grammatical Judgment task is presented in Table 2.

Table 2. The item distribution in Grammaticality Judgment Task

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

Examples for Grammatically Correct and Incorrect Items in Grammaticality Judgment Task

[*] shows ungrammatical item

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

Our neighbour's son who had broken our window did not apologize (SU).

*The homework which our teacher had assigned it was rather difficult. (DO)

The book which I am reading now was written by Stephen King (DO).

*I saw the bank manager to who I gave my cheque (IO)

Mary likes the children to whom she gives presents every week (IO).

*I found the taxi in whose I forgot my purse (OBL)

This is the diary in which I keep my memories (OBL).

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

The woman whose dress was torn got very upset (GEN)

Data analysis

Scoring of the data is done by giving 1 point for each correct answer and 0 for each incorrect answer in both tasks. “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” (Baysal, 2001, p. 136). Therefore, the relative clause types in which there are more errors were assumed as acquired later than the other types. In the 20 items of the task, the types or relative clauses are equally distributed to be 4 for each type. Statistical analysis of sentence combination task is done based on the patterns in the scoring. Since the correct answers for the questions are given 1 point, and the incorrect ones 0, the RC types which have the highest point was interpreted as the type which was acquired first and the RC type which has the second highest score followed it in the hierarchy and so on. The highest points are decided by looking at the group means in each task for each group.

Results

Sentence combination task

The first question of the study aimed to reveal if there is a predictable order in the acquisition of RCs as stated in NPAH theory. For the purpose of detecting tendencies of the group, descriptive statistics were run in SPSS statistical program. The results of the sentence combination task for the Turkish Group are presented in Table 3.

Table 3 Sentence Combination Task (Turkish Group)

	N	Min.	Max.	Mean	St. Deviation
GEN	20	1,00	4,00	3,5500	,75915
SU	20	1,00	4,00	3,2500	,96655
IO	20	,00	4,00	2,6000	1,23117
DO	20	,00	4,00	2,5000	1,46898
OBL	20	,00	4,00	2,3000	1,17429

For a participant the maximum point that could be got from each relative clause type was 4, and the minimum point was 0. The Turkish group had the most mistakes in OBL whereas they had the best score in GEN. When the data in the table is put into a hierarchical order, we got the following results:

GEN > SU > IO > DO > OBL

3,5500 > 3,2500 > 2,6000 > 2,5000 > 2,3000

The results of the sentence combination task for the Polish Group are presented Table 4.

Table 4 Sentence Combination Task (Polish Group)

	N	Min.	Max.	Mean	S. Deviation
SU	21	1,00	4,00	2,9048	,94365
GEN	21	1,00	4,00	2,9048	1,22085
DO	21	,00	4,00	2,4762	1,32737
OBL	21	,00	4,00	2,0476	1,53219
IO	21	,00	4,00	1,8095	1,60060

The Polish group had the most mistakes in Indirect Object RC. When the data is taken and ordered from highest point to the least, we get the following hierarchy from the task:

$$SU = GEN > DO > OBL > IO$$

$$2,8500 = 2,8500 > 2,400 > 2,0500 > 1,700$$

Grammatical judgement task

The results of Grammatical Judgment task for are listed in Table 5.

Table 5 The Grammatical Judgment Task (Turkish group)

	N	Min.	Max.	Mean	St. Deviation
SU	20	1,00	4,00	3,4500	,82558
IO	20	2,00	4,00	3,4000	,75394
GEN	20	1,00	4,00	3,3500	,87509
OBL	20	1,00	4,00	3,2500	,85070
DO	20	1,00	4,00	3,0000	,91766

The means of each RC type were quite close to one another. The biggest difference between the two RC types was observed in between “DO” and “OBL” RC types. The data is transferred to the Acquisition hierarchy order as following:

$$SUB > IO > GEN > OBL > DO$$

$$3,4500 = 3,4000 > 3,3500 > 3,2500 > 3,0000$$

The results of the same task of Polish students are represented in Table 6.

Table 6 Grammatical Judgment Task (Polish group)

	N	Min.	Max.	Mean	St. Deviation
OBL	20	1,00	4,00	3,1500	,93330
GEN	20	1,00	4,00	3,1500	,87509
SU	20	1,00	4,00	3,0500	,94451
DO	20	1,00	4,00	3,0500	,94451
IO	20	1,00	4,00	2,5000	,88852

The results show that genitive RC which should have been at the very end of the accessibility hierarchy according to NPAH is at the first place in the data being equal to oblique RC which should also have been at the lower positions in the hierarchy.

GEN=OBL>SUB=DO>IO

3,1500 3,1500 > 3,0500 = 3,05 > 2,500

The differences between Turkish and Polish participants

In order to be able to see whether there is a difference between groups according to their native language in the acquisition of English RCs, independent samples T test is run between the groups. For the sentence combination task, the only meaningful difference was in the indirect object relative clause ($t(38) = 2,026, p=0,5$). Similarly, for the grammatical judgement test, the only meaningful difference between the Turkish students and Polish students was in the indirect object relative clause ($t(38) = 3,454, p=0,01$).

Relative clause errors in Turkish group

The repetitive errors in the task are categorized according to the headings which was present in (Xiaorong, 2007) study and according to the errors appeared in the tasks.

Problems with relative pronoun

One of the common mistakes was the use of wrong RC pronoun.

Example 1:

- Sentence in the task (item 12) in Sentence Combination Task:
John' colleague has left quite early. He was present at the meeting.
- Target RC: John's colleague who was present at the meeting has left quite early.
- Student answer: John's colleague which he was at the meeting has left quite early.

Example 2:

- Sentence in the task (item18): I was teaching two Spanish students. Jane had met them in Madrid.
- Target sentence: I was teaching two Spanish students whom Jane had met in Madrid.
- Student answer: I was teaching two Spanish students whose Jane met them in Madrid.

Redundant use of RPs

The one error type which was the most frequently done by the participants was the use of redundant Resumptive pronouns. Resumptive pronoun is keeping the pronoun of the original sentence which should be omitted in RC. An example for the study is shown below.

- Sentence in the task (item 11): Everyone respects the headmaster. I gave a present to the headmaster.
- Target answer: everyone respects the headmaster whom I gave a present to.
- Student answer: Everyone respects the headmaster that I gave a present to him.

Problems with prepositional phrase in IO and Oblique relatives

- The errors in the students answer sheets in Turkish Group also included preposition errors which can be exemplified as the following.
- Sentence in the task (item 2): I always visit the child. I told my life story to the child.
- Target answer: I always visit the child to whom I told my life story.
- Student answer: I always visit the child whom I told my life story.

Wrong positioning of relative clause

The errors containing wrong positioning generally occurred when the noun which is to be relativized isn't at the end of the first sentence.

- Sentence in the task (item 14): The film was directed by David Lean. Mary had seen it in France.
- Target sentence: The film which Mary saw in France was directed by David Lean.
- Student answer: The film was directed by David Lean that Mary saw in France.

Deletion of Auxiliary Verbs

- Sentence in the task (item 1): the man was fired by his boss. He had forgotten to pay the salaries.
- Target sentence: The man who had forgotten to pay the salaries was fired by the boss.
- Student answer: The man who fired by his boss had forgotten to pay the salaries.

In the answer sheets of the students for the grammaticality judgment task, there were also answers which didn't include any RC sentence. Even if the target sentences are relative clause sentences, the answers included noun clauses. They were interpreted as incorrect. (Noun clause structure is used by two participants. Both answers were for the item 9 in the task, the participants were participant 12 and participant 14)

e.g.

- Sentence in the task (item 9): We noticed the train. I lost my bag on the train.

- Target sentence: We noticed the train on which I lost my bag.
- Student answer: we noticed that I lost my bag on the train.

In Turkish group the most errors were on “redundant use of RPs” (24 mistakes in total) and “problems with relative clause” (24 mistakes).

Relative clause Errors in Polish Group

Problems with Relative Pronouns

The problems related to relative pronouns included heavy use of “whose” relative pronoun. The Polish students used the pronoun whose instead of who in a number of sentences.

- Sentence in the sentence combination task (item 11): Everyone respects the headmaster. I gave a present to the headmaster
- Target sentence: Everyone respects the headmaster to whom I gave a present.
- Student answer: Everyone respects the headmaster whose I gave a present.
- Sentence in the sentence combination task (item 10): He wants to see the students. He interviewed them yesterday.
- Target sentence: He wants to see the students who he interviewed yesterday.
- Student answer: He wants to see the students whose he interviewed.

There were 34 mistakes in this category most of which included using “whose” in an incorrect place.

Redundant Use of RPs

The one error type which was the most frequently done by the participants was the use of redundant Resumptive pronouns. Resumptive pronoun is keeping the pronoun of the original sentence which should be omitted in RC. An example for the study is shown below.

- Sentence in the sentence combination task (item 11): Everyone respects the headmaster. I gave a present to the headmaster.
- Target answer: Everyone respects the headmaster whom I gave a present to.
- Student answer: Everyone respects the headmaster that I gave a present to him.

Redundant use of RPs in Polish data was not as common as in the Turkish data. There were only 2 examples of this type of error in the answers of Polish Students whereas the number was 24 in Turkish students’ answers.

Problems with Prepositional Phrase in IO and Oblique Relatives

The students also made mistakes by omitting the prepositions of IO and Oblique RCs in their answers.

- Sentence in the sentence combination task (item 19): The students wanted the paper. The teacher put a grade on the paper.
- Target answer: The students wanted the paper on which the teacher put a grade.
- Student answer: The students wanted the paper which the teacher put a grade.

Discussion

In the study the data is gathered through two complementary tasks. According to Creswell et al., (2003) this design (called triangulation design) is made use of when the researcher wants to compare and contrast the data about a single phenomenon (as cited in Heigham, 2009). In the study different tasks yielded different results. Therefore, it is concluded that processing difficulties of RCs by the participants should be evaluated in relation to the tasks.

Sentence combination test (Turkish group)

Noun Phrase accessibility hierarchy follows the order below.

NPAH: SU>DO>IO>OBL>GEN (Object of comparison RC is excluded since it is not very common).

Group means for the Turkish group for the sentence combination task is provided below.

GEN > SU > IO > DO > OBL

3, 5500 > 3, 2500 > 2, 6000 > 2, 5000 > 2, 3000

In this task the order of NPAH is violated since the participants made the least error in genitive RC which should be the opposite. Apart from that, indirect object comes before the direct object RC which is also an unexpected result according to NPAH. However, the limited sample group and the closeness of the means (2,600 and 2,500) compels us to be cautious in the inferences.

The results in terms of genitive RC, are in accordance with the results of Baysal's (2001) study on restrictive relative clauses with Turkish speakers who are learning English. In the sentence combination task of the mentioned study, genitive appeared at the beginning of the hierarchy. The explanation for the deviation of the genitive RC is explained by Gass (1983) as: The fact that the genitive relative pronoun marker is quite evident makes the relativization of genitive easier (as cited in Doughty 1988).

Grammatical Judgement Test (Turkish Group)

The group means for the grammaticality judgment task of Turkish participants are listed as:

SU > IO > GEN > OBL > DO

3, 4500 = 3, 4000 > 3, 35000 > 3, 2500 > 3.0000

The order was different from NPAH. The Turkish participants made the most errors in direct object RC type in this task. Genitive RC was not the first one in the order this time. Hamilton (1995) makes a possible explanation for the variance of genitive. He states that the unit "whose +noun" can have a different grammatical role, such as subject, direct object within the RC, therefore, GEN has its own hierarchy of difficulty accordingly (as cited in Ozeki & Shirai., 2007)

Sentence Combination Test (Polish Group)

Group means for the sentence combination task for the Polish group were listed as:

SU = GEN > DO > OBL > IO

2, 8500 = 2, 8500 > 2,400 > 2, 0500 > 1,700

Polish group's sentence combination task results show that, the participants don't follow the NPAH order as they are learning English relative clauses. The participants made the least error in subject and genitive RCs. The genitive was the highest RC type in hierarchy in both of the tasks. Error analysis revealed that Polish participants make excessive use of genitive relative pronoun "whose" in sentences where subject relativization is necessary. Further studies should be done on Polish to bring out light the reason why Polish participants used genitive pronoun whose instead of who for a number of sentences.

Grammatical Judgement Test (Polish Group)

Group means for the Grammaticality judgment task for the Polish Group were as:

GEN=OBL>SU=DO>IO

3, 1500 = 3, 1500 > 3, 0500 = 3, 05 > 2,500

Grammaticality judgment task also shows that the hierarchical order doesn't reflect the NPAH predictions. Subject RC wasn't at the beginning of the hierarchy as NPAH suggests. It appeared after genitive and oblique RCs.

The difference between Polish and Turkish groups

The difference between groups was more striking in error analysis. The number and type of errors differed greatly between the groups. Redundant use of Resumptive pronouns was frequently done by Turkish group. The number of the mistakes was 24 whereas the number in the Polish group was 2. In English relative clause sentences include a gap. However, in languages like Turkish the relative clause structure is consisted of a modifying clause attached to the head noun.

Annemin aldığı saat

Modifying clause Head noun

The watch which my mother bought

One possible explanation for the high rate of mistakes in redundant RPs in Turkish data may be due to the fact that the RCs in Turkish contain the head noun, Turkish speakers also include it in the English RCs.

Turkish group also made more mistakes in the positioning of relative pronouns.

- The woman was very upset whose child had been drown in the river.

In the right branching RCs, the errors related to positioning of relative pronouns were not observed. However, the sentence above requires centre branching. In right branching subject relatives usually obey the canonical word order of agent first, and theme second" (Friedman &

Novogrodski, 2004 p. 667). Therefore, it is easier to make the RC. In centre branching, RCs should be done more carefully. However, in Turkish the word order is quite flexible, (for instance, an agent doesn't have to be at the beginning of the sentence, etc.). Turkish participants' errors can be attributed to this feature of their L1.

Lastly, the Polish group made quite a number of errors in the category "relativized subject". This error includes changing the target RC type to a subject relative clause and restructuring the sentence by using SU relative clause while answering the sentence combination task. This error number was only 1 in Turkish data. However, the number was 20 in Polish data. These facts support the notion that "grammatical role of subject enjoys some sort of cognitive prominence unattained by other grammatical roles" (Fox, 1987 p. 857) which is called "subject primacy" by Fox (1987). The Polish participants preferred to structure the sentences with subject RC which was easier for them. However, in Asian languages semantic values of the noun phrases are more important than their grammatical roles. (Ozeki & Shirai., 2007).

Conclusion

The general aim of the study was to contribute our understanding about processing difficulties in the acquisition of relative clauses in English as a foreign language. The study tested the predictions of Noun Phrase Accessibility Hierarchy, to see whether there is a predictable order in the acquisition of English RC types for Turkish students. The findings demonstrated that NPAH theory is not supported in Turkish speakers. The results of the sentence combination test replicated the findings of Baysal's (2001) study in terms of the place of genitive RCs in the hierarchy. The results of the Polish group in both tasks deviated from the order of NPAH. The second question of the study aimed to reveal whether there is a difference in the acquisition of the RCs according to the native language of the participants. The findings supported that in the specific IO RC type, the two groups showed meaningful differences. Based on the error analysis of the groups, it is concluded that English learners of Polish and Turkish participants differ in the type and quantity of errors that they are making while learning RCs. The reasons of the errors are tried to be explained based on the processing patterns of the participants' L1s. this finding was new considering the studies which found no effect of L1 on relative clause acquisition (Flynn, Foley & Vinnitskaya, 2004; Aydın, 2006). The findings suggest that in second language teaching, native language of the students should be taken into consideration. Turkish students should be given more instruction on resumptive pronouns on the other hand Polish students should be given more attention while they are learning the different types of RCs other than SU since they tend to over-generalize its structure to the other types. English language should be context specific by being sensitive to the native language of the students. The limitations of the study should also be kept in mind while interpreting the results. The number of the participants as well as the number of items tested for each one of the 5 different categories might be restricting. Furthermore, the impact of the task type should be also taken into consideration since the results show differences based on the tasks.

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