

Acquisition of Zero Relative Clauses in English by Adult Turkish Learners of English

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Abstract

Studies on acquisition of relative clauses by first and second language learners have evoked considerable interest in recent decades. In line with such studies, in this present study we aim to show the possible effect of first language (Turkish) on second language (English) in zero relative clause constructions. English uses certain stranded prepositions in zero relative clauses, whereas Turkish uses the same suffix in non-subject relative clause constructions. This observation in two typologically different languages led the study to claim that Turkish word order in non-subject relative clauses affects the acquisition of zero relative clauses in English. Fifty sentences in Turkish were prepared and composed of five categories. Each category consisted of ten sentences. Each category referred to one of the five cases in Turkish. These cases were accusative, locative, ablative, dative and instrumental. The participants (N=91) were asked to translate these Turkish sentences into English. The results showed that the participants tended to omit prepositions in English zero relative clauses except the construction that did not entail any preposition. Therefore, the study implies that Turkish language learners may be under the effect of their mother tongue while producing zero relative clauses in English.

Keywords: construction, second language acquisition, zero relative clause construction

1. Introduction

Syntax studies on second language acquisition have been of paramount importance since the emergence of generative grammar (Chomsky, 1965; White, 2003; Hawkins, 2001). More specifically, the acquisition of relative clauses by second language learners has been considerably investigated in recent decades. Various hypotheses about the processing of asymmetry of relative clause constructions have been developed. Since these hypotheses entail the processing of a complex unit, Wiechmann (2015) names them resource-based approaches that claim that more complex constructions necessitate more resources and harden functions of memory while processing these clauses containing variations ranging from simple to non-canonical templates or constructions. Keenan and Comrie (1977) found that relative clauses are constructed in a hierarchy called Noun Phrase Accessibility Hierarchy. Another hypothesis regarding RCs is Linear Distance Hypothesis (LDH) (Hawkins, 1989; O'Grady, Lee & Choo, 2003; Tarollo & Myhill, 1983) that maintains that the number of the intervening words between the head and the gap helps the prediction of accessibility. Structural Distance Hypothesis (SDH) alleges that structural distance between the nodes may explain the accessibility difficulty (O'Grady (1999). Word order difference hypothesis (WDH) claims that canonical word order is more easily accessible than non-canonical word order (MacDonald & Christiansen, 2002; Tabor, Juliano, & Tanenhaus, 1997). Gibson (1998) developed the Syntactic Prediction Locality Theory dealing with an integration cost component and a component for the memory cost following obligatory syntactic requirements. Hamilton (1994, 1995) dwells on SO Hierarchy Hypothesis and approached processing difficulties by taking four discontinuities (OS > OO = SS > SO) in relative clause constructions. Besides these resource-based approaches emphasizing the processing asymmetry, exemplar-based, pattern-oriented, usage-based constructionist and experience-based approaches prioritize template, schema, pattern, entrenchment, experience, frequency, association while evaluating use of relative clause constructions (Bergen & Chang, 2005; Bever, 1970; Bod, 2006; Diessel 2007, Gennari & MacDonald 2008; Wiechmann, 2015). Based on these explanations, production and comprehension of relative clause constructions can be understood from a usage-based grammar perspective that has been developed in cognitive linguistics.

In line with these explications, this study aims to examine the acquisition of zero relative clauses in English by Turkish

adult learners of English and more specifically to understand whether the learners of English may preserve the prepositions in zero relative clauses in English while translating from Turkish to English. Therefore, the effect of first language (Turkish) on the second language (English) is considered a strong determinant in this study. Although Turkish has a rich inflectional system in canonical word order, it tends to use the same suffix in non-subject relative clauses. This observation guides the formation of the hypothesis that adult learners may be affected owing to the use of the same suffix in non-subject relative clauses in Turkish. English, unlike Turkish, preserves prepositions in zero relative clauses except in direct object relative clauses that do not entail any prepositions. Relative clauses contain various types.

1. The boy that_ came home (Subject RC)
2. The boy that the man called _ (Object RC)
3. The boy that the teacher gave the book to_ (Indirect Object RC)
4. The boy whom I am listening to_ (Object of a preposition)
5. The boy whose house was sold _ (Genitive RC)
6. The boy who the girl is richer than _ (Object of Comparison RC)
7. The boy I talked about _ (Zero Object RC)

Mounting evidence in the literature shows that Subject RCs are easier to acquire than Object RCs. This study deals with only zero object RCs with prepositions since they entail a preposition in English. Turkish RCs, unlike English RCs, have postpositions. However, interestingly Turkish language does not use distinct postpositions in zero object RCs but uses the same suffix to denote the same meaning in English, whereas English requires different prepositions in zero object RCs with prepositions. Therefore, a possible effect of first language on second language in the acquisition of this type of relative clause may ensue.

Wiechmann (2015) notes that zero relative clauses are the most commonly used relative clause constructions in both spoken and written English based on the data from the ICE-GB. Therefore, it can be said that zero relative clauses are highly entrenched constructions (Wiechmann, 2015). The reason for omission results from the level of entrenchment. If a construction is highly entrenched, it is more likely that relativizers will be omitted. A frequent use of a certain construction is thought to shape language, which most possibly explains the reasons for preferring some constructions over others. Zero relative clauses are such constructions that are highly entrenched in English.

1.1 Zero Relative Clauses in English and Turkish

English and Turkish are typologically different languages. Aksu-Koc and Slobin (1995) and Underhill (1972) note that Turkish is a highly agglutinative language with rich and regular morphology with few exceptions and has SOV canonical word order that may vary considerably in different pragmatic contexts, while English is an analytic language with few morphemes and has SVO canonical word order. Therefore, grammatical categories in relative clauses are named differently. While Turkish has five basic cases in object positions (accusative, locative, ablative, dative and instrumental), English has two main objects (direct and indirect objects). Turkish uses distinct suffixes for each case in object position in SOV canonical word order (Kornfilt 2000a, 2000b). However, English does not use any preposition in direct object position, while it uses certain prepositions in indirect object position. In Turkish the non-subject relative takes /-dik/ form as NSR (Aksu-Koc and Slobin, 1995; Ekmekçi, 1990). Participle in Turkish is subject to both vowel harmony and consonant mutation rules (-dik, -duk, -dik, -dük). If a further suffix with a vowel is added to the final -k is also subject to consonant mutation (-diği, -duğu, -diği, -düğü or -tiği, -tuğu, -tigi, -tüğü). It should be born in mind that each distinct case in non-subject relative clause in Turkish uses the same suffix, while each case takes a different case in Turkish canonical word order as shown in Table 1. Zero relative clause (also called asyndetic/apo-koinou relative clause/ellipted or contact clause), in English refers to omission of a relative pronoun (shown below as Ø) in either the object or the object of a preposition in the dependent clause.

8. That is the new house Ø I bought. (=That is the new house that/which I bought)
9. This is the city Ø I am living in. (=This is the city which I am living in.)

Table 1. Canonical and Zero Relative Clause Word Order in Turkish

Turkish Canonical Word Order	Non-Subject Relative Clause in Turkish
Kitab- ı oku du- m Book – ACC read PAST 1SG	Oku- duğu m kitap Read PART 1SG book
Kasaba- da yaşı yor um Town – LOC live PROG 1SG	Yaşa- dığı m kasaba Live PART 1SG town
Yatak- tan kalk tı m Bed – ABL get out of PAST 1SG	Kalk- tığı m yatak Get out of PART 1SG bed
Kafe- ye git ti m Cafe- DAT go PAST 1SG	Git - tiği m kafe go PART 1SG cafe
Arkadaş- la konuş tu m Friend – INSTR speak past 1SG	Konuş- tuğu m arkadaş speak PART 1SG friend

However, different prepositions in both canonical word order and zero relative clauses are preserved in English, while only direct object relative clause does not take any preposition as shown in Table 2.

Table 2. Canonical and Zero Relative Clause Word Order in English

Canonical Word Order in English	Zero Relative Clause in English
I am reading the book.	The book \emptyset I am reading
I am living in the town.	The town \emptyset I am living in
I got out of the bed.	The bed \emptyset I got out of
I went to the cafe.	The cafe \emptyset I went to
I talked with the friend.	The friend \emptyset I talked with

1.2 Research Questions

The main aim of this study is to uncover the morphosyntactic behaviour of zero relative clauses by adult Turkish learners of English. Within this framework, answers are sought for the following questions:

1. Does the morphosyntactic behaviour of relative clauses in Turkish affect Turkish learners' acquisition of zero relative clauses in English?
2. Do Turkish Adult learners of English transfer only accusative case appropriately since accusative case does not entail any preposition?

3. Methodology

The elicitation task composed of translation of Turkish sentences into English and aimed to elicit knowledge of zero relative clauses in English in this study was formal, quantitative and analytical. In this sense knowledge elicitation technique was used (Cooke, 1994). Cooke (1994: 802) notes that 'knowledge elicitation is a component of knowledge acquisition'. The sentences were formed considering definiteness, content, concreteness, animacy of the head (Wiechmann, 2007, 2015).

3.1 Participants

The study was conducted with 91 students from second and third year ELT students in Turkey. All the participants had at least a five year English background with no third language history and passed the same national exam providing homogeneity for the study. Their age range was between 21 and 24.

3.2 Data Collection

Translation was used as an elicitation task. Fifty sentences in total in Turkish were prepared and composed of five categories. Each category consisted of ten sentences. Each category referred to one of the five cases in Turkish. These cases were accusative, locative, ablative, dative and instrumental. English equivalents of these cases were Object RC, Indirect Object RC, and Object of a preposition. The participants were asked to translate these sentences into English by using zero relativizer and were not timed. Each sentence contained only elementary words since this study aimed to focus only on acquisition of syntactic constructions. In addition, only literal meaning was used in each phrase and sentence so that relative clause construction could be measured. The sentences produced by the participants were also checked by three native speakers.

3.3 Data Analysis

The data was analyzed utilizing SPSS v.17. Frequencies and percentages of the data were given for each category. If the participants translated the sentence correctly, it was coded as 1. If they translated the sentence incorrectly, it was coded as 0. The present findings showed that the participants tended to omit certain prepositions in production of zero relative clauses.

4. Results

The results showed that the participants' translation of each category varied significantly except the accusative case. Each category was composed of 910 (91 X10) sentences. The participants translated all the sentences in accusative case in Turkish and in direct object position in English with 100 % accuracy. However, four cases showed considerable variations.

Table 3. Descriptive Statistics of Four Cases

Cases in Turkish	Use of prepositions		Omission of prepositions	
	f	%	f	%
Locative	256	28.1	654	71.9
Ablative	351	38.6	559	61.4
Dative	310	34.1	600	65.9
Instrumental	545	40.1	365	59.9

Table 3 indicates that almost 72 % of the sentences in locative case did not contain any preposition. 28 % of the sentences in locative case were translated with a proper preposition. As for the ablative case, 65.9 % of the sentences did not include any prepositions, while 38.6 % of the sentences contained a proper preposition. 65.9 % of the sentences in the dative case lacked the preposition. However, 34 % of the sentences included the correct preposition. 59.9 % of the sentences in the instrumental case were lacking in the preposition, while 40.1 % of the sentences had the correct preposition.

5. Discussion and Conclusion

This present study showed that the effect of surface structure in the mother tongue might be observed in the target language production and that since surface syntax in relative clause constructions in Turkey Turkish containing five cases (accusative, ablative, locative, instrumental, dative cases) is different from relative clauses in English that may take various prepositions in zero constructions except in direct object relative clauses that do not entail any prepositions, the translated sentences by Turkish learners showed considerable variation. Omission of relativizer was found to be among the most common types in English (Wiechmann, 2007; Wiechmann, Kerz, Snider, & Jaeger, 2013). Wiechmann (2015) emphasizes that experience and entrenchment based on usage may affect production of zero relative clauses and that data collected from corpora support the view that relativities tend to be omitted since these constructions may act formulaic and are entrenched in daily conversations.

In line with these explanations, findings of the present study showed that when English does not entail any prepositions in zero relative clauses, Turkish learners do not experience any difficulty since the surface syntax of relative clause in Turkish also does not use any postposition. However, when the zero relative clauses entailed any preposition, the learners were observed to be under the influence of their native language since each case in Turkish relative clause used the same suffix. This same suffix seems to have affected the acquisition of zero relative clauses in English. The possible reason for this finding is that Turkish learners can process relative clauses more effortlessly when these constructions do not entail any prepositions, which shows that experience in their native language does not entail any postposition. Özçelik (2006) points out Turkish relative clauses are not relative clauses in English. Therefore, it may be misleading to generalize Noun Phrase Accessibility Hierarchy as universal. The general assumption that subject relative clauses are easier to process is challenged by Özçelik's findings that show that direct object relative clauses were easier to process. This present study approached zero relative clause constructions from a cognitive linguistic perspective considering usage-based constructionist grammar (Bod, 2006; Diessel 2007; Diessel & Tomasello, 2005; Goldberg, 1995, 2006). Fedorenko, Woodbury and Gibson (2013) maintain that experience-based and memory-based data need to be collected and compared to explain the nature of relative clause constructions. Izumi (2003) also used three hypotheses to analyze second language learners' processing problems at production and comprehension levels and found variations in these hypotheses in terms of predictability. This present study also predicts that Turkish learners of English are better at producing zero relative clauses when direct object does not necessitate any prepositions. Future studies can use various elicitation tasks and methods to test processing difficulties of zero relative clauses to understand whether Turkish syntax has an effect on acquisition of English relative clauses.

References

- Aksu-Koç A. A., & Slobin, D. I. (1985). Acquisition of Turkish. In Slobin, D. I. (Ed.) *The cross-linguistic study of language acquisition*, Vol. 1: The data. (pp.839-878) Hillsdale, NJ: Lawrence Erlbaum Associates.
- Bergen, B., & Chang, N. (2005). Embodied construction grammar in simulation-based language understanding. *Construction grammars: Cognitive grounding and theoretical extensions*, 3, 147-190. <https://doi.org/10.1075/cal.3.08ber>
- Bever, T. (1970). The cognitive basis for linguistic structures. In *Cognition and the Development of Language* (ed.)

- Hayes, J. R., New York: Wiley, 279-362.
- Bod, R. (2006). Exemplar-based syntax: How to get productivity from examples. *The linguistic review*, 23(3), 291-320. <https://doi.org/10.1515/TLR.2006.012>
- Chomsky, N. (1965). *Aspects of the Theory of Syntax*, Cambridge, Massachusetts: MIT Press
- Diessel, H. (2007). Frequency effects in language acquisition, language use, and diachronic change. *New ideas in psychology*, 25(2), 108-127. <https://doi.org/10.1016/j.newideapsych.2007.02.002>
- Diessel, H., & Tomasello, M. (2005). A new look at the acquisition of relative clauses. *Language*, 81(4), 882-906. <https://doi.org/10.1353/lan.2005.0169>
- Ekmekçi, Ö. (1990). Acquisition of relativization in Turkish. *Fifth International Conference on Turkish Linguistics*, SAOS, London University, England, August 1990.
- Fedorenko, E., Woodbury, R., & Gibson, E. (2013). Direct Evidence of Memory Retrieval as a Source of Difficulty in Non - Local Dependencies in Language. *Cognitive science*, 37(2), 378-394. <https://doi.org/10.1111/cogs.12021>
- Gennari, S. P., & MacDonald, M. C. (2008). Semantic indeterminacy in object relative clauses. *Journal of memory and language*, 58(2), 161-187. <https://doi.org/10.1016/j.jml.2007.07.004>
- Gibson, E. (1998). Linguistic complexity: locality of syntactic dependencies. *Cognition*, 69, 1-76. [https://doi.org/10.1016/S0010-0277\(98\)00034-1](https://doi.org/10.1016/S0010-0277(98)00034-1)
- Goldberg, A. E. (1995). *Constructions: A construction grammar approach to argument structure*. University of Chicago Press.
- Goldberg, A. E. (2006). *Constructions at work: The nature of generalization in language*. Oxford University Press on Demand.
- Hamilton, R. (1994). Is implicational generalization unidirectional and maximal? Evidence from relativization instruction in a second language. *Language Learning*, 44, 123-157. <https://doi.org/10.1111/j.1467-1770.1994.tb01451.x>
- Hamilton, R. (1995). The noun phrase accessibility hierarchy in SLA: Determining the basis for its developmental effects. In W. O'Grady (1999). *Toward a new nativism. Studies in Second Language Acquisition*, 21, 621-633.
- Hawkins, J. (1999). Processing complexity and filler-gap dependencies across grammars. *Language*, 75, 244-285. <https://doi.org/10.2307/417261>
- Hawkins, R. (2001). *Second Language Syntax: A Generative Introduction*. Oxford: Blackwell
- Izumi, S. (2003). Processing difficulty in comprehension and production of relative clauses by learners of English as a second language. *Language Learning*, 53, 285-323. <https://doi.org/10.1111/1467-9922.00218>
- Keenan, E., & Comrie, B. (1977). Noun phrase accessibility and Universal Grammar. *Linguistic Inquiry*, 8, 63-100.
- Kornfilt, J. (2000a). Locating Relative Agreement in Turkish and Turkic. In C. Kerslake, & A. Göksel (Eds.), *Studies in Turkish and Turkic Languages*. (189-196). Wiesbaden: Harrassowitz Verlag.
- Kornfilt, J. (2000b). Some syntactic and morphological properties of relative clauses in Turkish.(in) *The Syntax of Relative Clauses* 121-159. (eds) Alexiadou, A, P. Law, A. Meinenger, C. Wilder. Amsterdam & Philadelphia: John Benjamins Publishing Company
- MacDonald, M. C., & Christiansen, M. (2002). Reassessing working memory: comment on Just and Carpenter (1992) and Waters and Caplan (1999). *Psychological Review*, 109, 35-54. <https://doi.org/10.1037/0033-295X.109.1.35>
- O'Grady, W. (1999). Toward a new nativism. *Studies in Second Language Acquisition*, 21, 621-633. <https://doi.org/10.1017/s0272263199004040>
- O'Grady, W., Lee, M., & Choo, M. (2003). A subject-object asymmetry in the acquisition of relative clauses in Korean as a second language. *Studies in Second Language Acquisition*, 25, 433-448. <https://doi.org/10.1017/s0272263103000172>
- Özçelik, Ö. (2006). Processing relative clauses in Turkish as a second language. Master's thesis. University of Pittsburgh, PA.
- Tabor, W., Juliano, C., & Tanenhaus, M. K. (1997). Parsing in a dynamical system: an attractor-based account of the interaction of lexical and structural constraints in sentence processing. *Language & Cognitive Processes*, 12, 211-272. <https://doi.org/10.1080/016909697386853>

- Tarollo, F., & Myhill, J. (1983). Interference and natural language processing in relative clauses and wh-questions. *Studies in Second Language Acquisition, 14*, 39-70.
- Underhill, R. (1972) Turkish Participles. *Linguistic Inquiry, 3*, 87-99. Underhill, R. (1976) *Turkish Grammar*. Cambridge, Massachusetts, London, England: The MIT Press. <https://doi.org/10.1017/CBO9780511815065>
- White, L. (2003). *Second language acquisition and Universal Grammar*. Cambridge: Cambridge University Press
- Wiechmann, D. (2007). Weighing discourse-pragmatic and processing related factors governing the omission of optional relativities in English non-subject relative clauses. Paper presented at the *International Cognitive Linguistics Conference 10 (ICLC)*, Krakow, July 2007.
- Wiechmann, D. (2015). *Understanding relative clauses: A usage-based view on the processing of complex constructions* (Vol. 268). Walter de Gruyter GmbH & Co KG. <https://doi.org/10.1515/9783110339581>
- Wiechmann, D., Kerz, E., Snider, N., & Jaeger, T. F. (2013). Special Issue: Parsimony and Redundancy in Models of Language. *Language and Speech, 56*(3). <https://doi.org/10.1177/0023830913490877>

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