At the Syntax-Pragmatics Interface: Acquisition of Turkish Word Order by Turkish-English, Turkish-German and Turkish-Russian Bilingual Children

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(Received 12 May 2021; Accepted 8 October 2021)

ABSTRACT: The aim of this study is to investigate how syntactic and pragmatic features of Turkish word order are acquired by Turkish-English, Turkish-German and Turkish-Russian bilingual children. The data were collected from Turkish monolingual and bilingual children who were born in England, Germany and Russia and acquired Turkish as their heritage language. The findings of the study reveal that the Turkish monolingual children adopt the use of SOV order as canonical, but they also show sensitivity to the pragmatics of Turkish and use other orders from an early age. Turkish-German, Turkish-English and Turkish-Russian simultaneous bilingual children, on the other hand, showed different patterns of word order acquisition than their Turkish monolingual counterparts.

Keywords: acquisition of word order, simultaneous bilingualism, Turkish word order

Sözdizim-Edimbilim Arcakesitinde: Türkçe-İngilizce, Türkçe-Almanca ve Türkçe-Rusça İki Dilli Çocukların Türkçenin Sözcük Dizilimini Edinimi

ÖZ: Bu çalışmanın amacı, Türkçe-İngilizce, Türkçe-Almanca ve Türkçe-Rusça iki dilli çocukların Türkçe sözcük diziliminin sözdizimsel ve edimsel özellikleri edinimlerini araştırmaktır. Çalışma verisi, İngiltere, Almanya ve Rusya'da doğan ve Türkçe'yi miras dili olarak edinen iki dilli ve Türkçe tek dilli
Introduction

Studies on acquisition of rigid word order languages such as English, German and Dutch have shown that in the course of mother tongue acquisition, children follow word order rules of their languages (Radford, 1990; Poeppel and Wexler, 1993; Schaeffer, 2000). These studies, in common, suggested that children possess innate morphosyntactic knowledge providing a basis for the development of pragmatic aspects of their native languages, for which they need to receive language input. This assumption draws attention to new questions regarding how children acquire word order of languages that allow word order flexibility, such as Finnish, Korean or Turkish, which require not only the acquisition of word order properties of their languages but also how and when they need to vary their word orders depending on their pragmatic intentions. Two scenarios are possible here: children who acquire a flexible word order language either acquire the canonical word order of the language and only after that they start using other word order variations, or they are able to use different word order patterns to express their pragmatic intentions from early ages on.

L1 acquisition of languages with flexible word orders attracted the attention of several researchers, and they reported that children who learn word orders of such languages have a tendency to choose one of the word orders as canonical, and considered this preference as evidence for the idea that properties of syntax are acquired before pragmatic ones in L1 acquisition (Platzack, 1996; Schaeffer, 2000). Researchers also reported that children experience difficulties when using word order variations that are pragmatic dependent and that word order properties that are at the syntax-pragmatic interface cause delays both in L1 and L2 acquisition (Grinstead, 2004; Sorace, 2005).

However, the syntax-before-pragmatic hypothesis was challenged by the scholars who, on the other hand, reported an early sensitivity of young L1 learners to the syntax-pragmatics interface (see Dyakonova, 2004 for Russian and English; Serratrice, 2005 for Italian, Rozendaal, 2007 for French; De Cat, 2009 for German; Narasimhan and Dimroth, 2008 for German; Sağın-Şimşek, 2016 for Turkish). For instance, Dyakonova (2004), relying on longitudinal naturalistic data obtained from a Russian and an English monolingual child,
examined early development of pragmatic notions. The data including language production of Russian, which is a free word order language, and English, which is a rigid word order language, were compared for the use of topic and focus. The data analysis showed that both children showed sensitivity to the pragmatic constraints of their languages. In another study, Serratrice (2005) examined the acquisition of word order in Italian from both syntactic and discourse/pragmatic perspectives, pointing to the fact that word order is an inherent component of human language that contributes to the expression of both syntactic and pragmatic relations. As for the acquisition of word order of Turkish, another flexible word order language (Kornfilt, 1997; Göksel and Özsoy, 2000), studies revealed that Turkish children treat Subject-Object-Verb (SOV) sequence as canonical, while they are also able to use other word orders consistent with the flexibility of the language (Slobin, 1982; Slobin and Talay, 1986; Slobin and Bever, 1982; Ekmeckçi, 1986; Altan, 2006). In a recent study, Sağın-Şimşek (2016) tested the assumption of ‘syntax-before-pragmatics’ acquisition based on natural speech data collected from 12 monolingual children, whose ages ranged between 2;2 and 6;1. The results showed that both canonical SOV and non-canonical orders were used appropriately from an early age in accordance with the pragmatic intentions of the children and the constraints of the language. The study reported that contrary to the studies suggesting that pragmatic development lags behind syntactic development, the data supported early sensitivity to pragmatic considerations at the age of two. To sum up, the review of these studies, in general, suggested that children use word order variations to express their pragmatic intentions following constraints of their languages from early ages on alongside their morphosyntactic development.

The findings of these studies conducted on the acquisition of a single mother tongue have raised interesting questions about bilingual first language acquisition. For instance, is it possible to talk about the syntax-before-pragmatics hypothesis during simultaneous acquisition of two languages? Do children who simultaneously acquire languages that have structural similarities or differences prefer different word orders due to the cross-linguistic interaction? These questions have not been investigated yet.

The aim of this study is to investigate whether word order preferences of Turkish-English, Turkish-German and Turkish-Russian bilingual children are similar to the word order preferences of Turkish monolingual children. We believe that this comparison will add to our understanding about the development of Turkish as a heritage language in contact with other languages. The languages investigated in the study include Turkish, a flexible word order language, English, a rigid word order language, German, a relatively less rigid language when compared with English, and Russian, a free word order language.
2 Word Order Properties of the Languages

2.1 Turkish Word Order

Turkish uses SOV order (verb to be understood as predicate) as canonical (Erguvanlı, 1984; Kornfilt, 1997). However, depending on the pragmatic intentions of speakers such as topicalization, focusing and backgrounding, Turkish also allows noncanonical word orders. For instance, the sentence “The student read the book” can be translated into Turkish using all six possible orderings as in (1a).

(1) a. Öğrenci kitab-ı oku-du.
   Student book-ACC read-3SG.PST
   The student read the book.

b. Öğrenci oku-du kitab-ı.
   Student read-3SG.PST book-ACC
   The student read the book.

c. Kitab-ı öğrenci ok-u-du.
   book-ACC student read-3SG.PST
   The student read the book.

d. Kitab-ı oku-du öğrenci.
   book-ACC read-3SG.PST student
   The student read the book.

e. Oku-du öğrenci kitab-ı.
   read-3SG.PST student book-ACC
   The student read the book.

f. Oku-du kitab-ı öğrenci.
   read-3SG.PST book-ACC student
   The student read the book.

2.2 English Word Order

English follows a grammatically determined rigid SVO word order in main and subordinate clauses (2a). English offers very limited flexibility to indicate communicative functions, for example, the use of place and time adverbials at the beginning or end of the sentence (2b), as well as cleft structures and passive structures.
(2)  a. I ate my sandwich.
    b. On Monday we went to the cinema.

2.3  **German Word Order**

Although German also follows SVO word order like English, it allows some flexibility provided that the verb is in the second position of the sentence (Hawkins, 1990; Weissenborn, 1990). That is, apart from the subject, other lexical elements can be topicalized in the initial position which is followed by the verb in the second position and the subject is postponed after the verb (3a).

(3)  a. Ich gab dem Jungen einen Ball.
    I give-PST the boy-DAT a ball-ACC
    I gave the boy a ball.

    b. Einen Ball gab ich dem Jungen.
    a ball-ACC give-PST I the boy-DAT
    I gave the boy a ball.

    c. Dem Jungen gab ich einen Ball.
    the boy-DAT give-PST I a ball-ACC
    I gave the boy a ball.

2.4  **Russian Word Order**

Russian possessing a very complex fusional morphology is known as a free word order language. The extensive agreement system between different parts of speech determines the syntactic relations within the clause and allows variations in the word order (4a). For instance, the sentence “Cats eat mice” can be translated into Russian using all the possible orderings as in (4a). The position of phrases is determined not by their syntactical functioning but by pragmatic factors such as topic and focus (Comrie, 2009; Dmitrievna Kallestinova, 2007).

(4)  a. Кошки едят мышей.
    Cat-PL eat-PR.3P.PL mouse-ACC.PL
    Cats eat mice.

    b. Мышей едят кошки.
    Mouse-ACC.PL eat-PR.3P.PL cat-PL.
    Cats eat mice.
3 The Study

This study aims to examine the word order preferences of Turkish-English, Turkish-German and Turkish-Russian simultaneous bilingual children, who acquire Turkish as their heritage language and compare them with those of their monolingual Turkish counterparts. The study was supported by Middle East Technical University, Scientific Research Projects Coordination Unit (Project Number: GAP-503-2018-3017).

3.1 Participants

Four groups (16 children in total) participated in the study (Table 1). The first group consisted of four monolingual Turkish children aged between 2;5 and 5;5 (M=4;0). The monolingual participants had been born and raised in Turkey by monolingual Turkish parents. The second group consisted of four German-Turkish children at the age from 3;0 to 6;1 (M=4;5). The parents of the second group are Turkish native speakers, born and raised in Germany. The third group included English-Turkish participants at the age from 2;11 to 6;4 (M=4;0). The parents of the third group are Turkish native speakers, born and raised in England. Lastly, the fourth groups consisted of Russian-Turkish participants at the age from 3;2 to 5;11 (M=4;3), who had been born and raised in Russia in a Russian-Turkish family where one of the parents is a monolingual Russian. All of the participants’ parents were from middle-class in regard to their socioeconomic and educational background.

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Age</th>
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<tbody>
<tr>
<td>Monolinguals</td>
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<td>2;5</td>
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<td>Turkish-German bilinguals</td>
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<td>Turkish-Russian bilinguals</td>
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<td>5;11</td>
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3.2 Data Collection Tools

Taking into the consideration the young age of the participants, natural speech data were gathered in the study. To collect the data, first, the participants were requested to retell a story looking at a series of pictures in the "Frog Where Are You?" book (Mayer, 1969). Second, a playing activity was organized with the participants by the researchers, during which natural speech data were collected from the participants. The participants’ utterances during picture description and the playing activity were audio recorded with the permission of the children’s parents. The recorded data were later transcribed using the transcription software EXMARaLDA (Schmidt & Wörner, 2005).

4 Results

The data obtained from the four groups of the participants were analysed to find out how often the participants used the canonical SOV word order in Turkish and whether they used other non-canonical word orders according to their intentions and the constrains of the Turkish language. Table 2 presents the number of canonical (SOV) and non-canonical word orders in the participants’ data.
As presented in Table 2, the data analysis revealed that both the Turkish monolingual and Turkish-German, Turkish-English, Turkish-Russian bilingual participants used SOV canonical word order as canonical in their Turkish narratives.

Further, the data analysis concerning the Turkish monolingual children has shown that they use non-canonical word orders in their narratives from a very early age, which suggests that the monolingual participants are able to express their pragmatic intentions by applying orders other than SOV. The analysis also showed that the number of sentences with non-canonical word orders increases with the age of the participants since the older monolingual children use non-canonical word orders more frequently (Figure 1). Relying on the above presented results, it would not be correct to say that Turkish monolingual children acquire Turkish syntax before the pragmatic constraints of the language.
Figure 1. Turkish monolingual children’s word order preferences

Excerpt 1 is taken from the narration of a Turkish monolingual child aged 4;6. When the word order of the utterances marked in bold are examined, it is seen that they preferred to use inverted word orders in which either the subject, object or adverbials are positioned after the predicate (the predicates are underlined).

Excerpt 1. A Turkish monolingual participant’s (4;6) narrative

Sonra çocuk çöpü dışarıya bırakmış. **Sonra bir arı kovan görmüş köpek.** Ona havlamış, havlamış […] Sonra da gitmiş. **Gitmiş çocuk.** Sonra köpek ve çocuk ağaca tırmanmış. […] Çocuk onun sırtına binmiş ve köpeği almış. **Sonra da onları atmış yokuş aşağıya.** Sonra çocuk ve köpek suda oturmuşlar. **Çok soğuk değilmiş su.** Sonra da sudan çıkmışlar.

Then the boy put out the garbage. **The dog saw a beehive.** On him, barked […] Then he left. **The boy went.** Then the dog and boy climbed on the tree […] The boy got on the back and took the dog. Then he threw them downhill. Then the boy and the dog sat in the water. **The water was not cold.** Then they got out of the water.

When the preferred word order patterns of the Turkish-German and Turkish-English bilingual children were examined, it is seen that the children started to use the canonical SOV order at a young age. However, unlike the Turkish monolingual children, whose use of noncanonical word orders increase as they age, a decrease in the use of noncanonical orders is remarkable in the Turkish-German and Turkish-English bilingual children data (Table 2). In other words, there is an inverse proportion between the frequency of use of noncanonical word
orders of the Turkish-German and Turkish-English bilingual children and their ages (Figures 2 and 3).

Figure 2. Turkish-German bilingual children’s word order preferences

Excerpt 2 is taken from the narrative of a Turkish-German bilingual participant’s (4;7) and Excerpt 3 is taken from the narrative a Turkish-English bilingual participant’s (5;3).

Excerpt 2. A Turkish-German bilingual participant’s (4;7) narrative

[…] Sonra çocuk çöpü dışarıya bırakmış. Sonra bir arı kovanı görmüş köpek. Ona havlamış,

[…] Then the boy put out the garbage. Then the dog was a beehive. He barked at him.
Excerpt 3. A Turkish-English bilingual participant’s (4;7) narrative


[…] then they go out of the woods and enter the forest to look for the frog. The child looks at each nest one by one. The dog sees a beehive above and thinks it is a pod and thinks the frog is in it.

The narratives produced by Turkish-German and Turkish-English bilingual children, who are around the ages of 4 to 5, are marked with limited use of non-canonical order. This limited use of non-canonical orders, which is not in line with the pragmatic development of the monolingual children, can be related to intensive German and English language input children receive outside the family environment, especially with the onset of nursery school. As a commonly reported outcome of heritage language acquisition (Polinsky and Scontras, 2020), children perceive and adopt the features of the dominant language. In these cases, English and German can be considered as their dominant languages whose word order properties are considerably more rigid in comparison to those of Turkish. These results show that acquisition of Turkish word order properties at the syntax-pragmatics interface in Turkish-German and Turkish-English bilingual children do not seem to take place simultaneously. Acquisition of these interfaces in bilingual children appears to be later or incomplete, unlike the monolingual Turkish children.
As for the data analysis obtained from Turkish-Russian bilingual children, it reveals that Turkish-Russian bilingual children exhibit different word order patterns than those of the Turkish-German and Turkish-English bilingual children. The Turkish-Russian bilingual children data showed characteristics similar to the word orders followed by Turkish monolingual children, particularly in the first two stages (Figure 4).

Figure 4. Turkish-Russian bilingual children’s word order preferences

This similarity can be explained with the flexibility that both Turkish and Russian allow to express pragmatic intentions. However, differences between word order preferences of these two participant groups become apparent as they grow. The analysis revealed that while the Turkish monolingual children acquire pragmatic constraints of their language and accordingly used both canonical and non-canonical word orders, the Turkish-Russian bilingual children had a tendency to follow canonical SOV order as they age. This finding may suggest that the Turkish-Russian bilinguals do not feel confident when using word order variations that require acquisition of pragmatic constraints in Turkish and find it easier to stick to the canonical word order instead. Excerpt 4 presents a Turkish-Russian bilingual participant’s (4;9) narration of the picture story.

Excerpt 4. A Turkish-Russian bilingual participant’s (4;9) narrative

[...] Sonra çocuk kurbağayı almış ve mutlu değilmiş. Şimdi o, köpek bağryvormuş kurbağaya. Sonra arı kovanı [kovanna] gelmişler ve köpek arı kovaya [kovanna], yani düşürmek istemiş. Sonra arılar çıkmış ve çocuk biraz korkmuş. Sonra köpeği gördüler. Onun arı kovanını düşürdügünü... ama çocuk
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...Suddenly, they were not happy. Now they were yelling at the frog. Then they came to the beehive and the dog wanted to drop the bucket. Then the bees came out and the child was a bit scared. Then they saw the dog and that he dropped the beehive... but the child was looking inside it. Then the boy fell down because there was an owl and he saw it. [...] Then the deer left them and they fell down. They fell down but nothing hurt. And they did not feel bad. Then they looked back [...] Hush. He said hush. Then he looked behind the tree but fell down from the tree.

Another finding of the data analysis was that both the monolingual and bilingual participants’ word order patterns were accurate in their use of both canonical and non-canonical orders in Turkish. These results are contradicting with some of the findings presented in the literature. For example, Hickmann (2003) and Rothman (2009) reported that syntactic properties were acquired earlier than the pragmatic ones and that the children produced inaccurate or inappropriate utterances during the development of pragmatic properties. However, the data collected within the scope of this study did not include any examples of inaccurate or inappropriate patterns.

5 Discussion and Conclusion

Within the scope of this study word order preferences of the Turkish-English, Turkish-German and Turkish-Russian simultaneous bilingual children, who acquire Turkish as their heritage language were examined and compared with those of their monolingual Turkish counterparts.

The results obtained from the Turkish monolingual children’s data revealed that the Turkish monolingual children from early ages on used both canonical SOV order and noncanonical orders appropriately; though SOV was preferred as the underlying one. These results coincide with the studies examining the underlying word order of Turkish (Slobin and Bever, 1982; Ekmeççi, 1986) and with those that argue that during the acquisition of free or flexible word orders children are sensitive not only to syntactic but also to pragmatic constraints of their languages (Dyakonova, 2004; Serratrice, 2005; Narasimhan and Dimroth, 2008).

As for word order preferences of the Turkish-German and Turkish-English bilingual children, the study showed that acquisition of Turkish word order as a
syntax-pragmatics interface phenomenon seem to differ from the monolinguals. Unlike the monolinguals, the Turkish-German and Turkish-English bilinguals did not use possible noncanonical word orders with the same frequency of the Turkish monolinguals. This finding suggests that acquisition of pragmatic notions seems to lack behind at the syntactic development in the Turkish-German and Turkish-English bilingual children.

Contrary to the Turkish-German and Turkish-English bilingual children, the Turkish-Russian bilingual children followed a similar word order pattern with those of the Turkish monolingual children when they were between the ages 2 and 3. However, it was observed that the Turkish-Russian bilingual children did not prefer using noncanonical word orders as they age like the Turkish monolingual children. Instead, they preferred following the underlying SOV order of Turkish at the later stages of acquisition.

All in all, relying on these results, it is possible to suggest that word order acquisition of the bilingual participants at the syntax-pragmatic interface seems to differ from that of the monolingual Turkish children. The non-monolingual-like pattern might be attributed to several factors. Firstly, restricted input of the Turkish language and the limited use of the language in the dominant environment of the other language may be an affecting factor. So far, there have been numerous studies demonstrating that input in the bilingual acquisition can be considered as the most significant factor accounting for the outcomes in the bilingual acquisition (Dixon, 2011; Paradis and Navarro, 2003; Place and Hoff, 2016 among others). We believe that the findings of this study contribute to the studies that suggest the role of input as an overriding factor in bilingual language acquisition. Secondly, the divergence between the monolinguals and bilinguals at the interface might be related to the differences between the processing strategies the monolinguals and bilinguals used in order to integrate information from internal and external language modules, i.e. syntax and pragmatics (Sorace, 2011). Nevertheless, based on the non-monolingual-like performance at the interface of the bilingual groups with different dominant languages, it might be possible to speculate that the cross-linguistic influence from the dominant language is unlikely to be the main source for the non-monolingual-like acquisition at the interface. Otherwise, the advantage of the Russian-Turkish bilinguals in the use of the word order variations in Turkish Russian would be expected due to the positive transfer from their free-order L1 Russian. However, at this point it is necessary to point out that the data collected and analysis done within the scope of this study do not allow us to draw decisive conclusions in this respect.
6 Limitations of the Study

The conclusions of the present study have to be seen in light of some limitations. The major limitation to the generalization of the findings concerns the number of the participants. Due to the limited number of the participants, it is not possible to generalize the conclusions. Secondly, the data utilized in the study were gained via natural language use. These limitations invite ideas for future research. We believe that future research may utilize a different research design including controlled language production tasks that would be applied to more participants.

References


Sağın-Şimşek, Ç. (2016). Acquisition of canonical and non-canonical word orders in L1 Turkish. In B. Haznedar and N. Ketrez (Eds.), *The Acquisition of Turkish in Chilhood*. Amsterdam: John Benjamins Company.


Slobin, D and Talay, A. (1986). Development of pragmatic uses of pronouns in Turkish child language. In A.A. Aksu-Koç and E. Erguvanlı Taylan (Eds.), *Proceedings of the
Turkish linguistics conference: August 9-10, (pp. 207-228). İstanbul: Boğaziçi University Press.

