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A Phase-Based Analysis of Silent Arguments in Turkish

Türkçe Sessiz Üyelerin Evre-Temelli Analizi

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ABSTRACT

The present study analyzes null (silent) argument phenomenon in Turkish through intra-sentential structures adopting a phase-based approach. The structures containing null arguments in Turkish may cause different interpretations as strict and sloppy readings. In the related cross-linguistic literature, this variability is associated with two structural analyses of the phenomenon. While strict reading is considered to be an indication of “silent pro”, the availability of sloppy reading is considered to be an indication of “ellipsis”. Based on the mentioned interpretations, the depictions of the structures with null arguments in Turkish are discussed in previous studies. Among those, Şener and Takahashi (2010) and Kornfilt (2024) comprise the major axis of the present work. The former one states that the null argument phenomenon in Turkish can be explained via scrambling property of Turkish due to the related cross-linguistic literature proposing that argument ellipsis is a major property of scrambling languages. Besides agreeing with some of their observations, Kornfilt (2024) discusses some other outcomes obtained by Şener and Takahashi (2010) by indicating that the derived interpretations may not be certain and thus further study is needed to explain null arguments in Turkish. At this point, the present study aims at developing the argument by examining null arguments in Turkish intra-sentential constructions adopting Sakamoto (2016)’s phase-based approach. As a result, it has been observed that phase-based analysis is capable of explaining the mechanism behind the null argument phenomenon in Turkish, and has the potential for further examination.

ÖZ

Bu çalışma, Türkçedeki sessiz üye olgusunu tümce içi yapıları evre-temelli yaklaşımı ele alarak incelemektedir. Türkçede sessiz üye içeren yapılar katı ve dağınık olarak adlandırılan iki farklı yorumlamaya sebep olabilirler. Diller-arası ilgili literatürde bu çeşitlilik olgusunun iki yapısal açıklamasıyla ilişkilendirilir. Katı yorumlama “sessiz adıl” belirtisi olarak ele alınırken, dağınık yorumlamanın mümkün olması ise “eksilteli yapı” varlığına işaret ediyor olarak yorumlanır. Türkçedeki sessiz üye içeren yapıların incelenmesi ve tanımlanması konu alan önceki çalışmalar, analizlerinde üstte bahsedilen iki tür yorumlamayı esas almışlardır. Bunlar arasında Şener ve Takahashi (2010) ve Kornfilt (2024)’teki bulgular ve önermeler mevcut çalışmanın ana eksenini oluşturmaktadır. Bunlardan ilki, Türkçedeki sessiz üye olgusunun, ilgili diller-arası literatürde öne sürülen eksilteli yapının çalkalamaya izin veren dillerin belirgin bir özelliği olduğu varsayımını temel alarak, Türkçenin çalkalama özelliğiyle açıklanabileceğini belirtir. Bazı gözlemlerine katılmakla birlikte, Kornfilt (2024), Şener ve Takahashi (2010)’un bazı sonuçlarını, bunlarla ilgili elde edilen yorumlamaların kesin olmayabileceklerini ve sonuç olarak Türkçe sessiz üyelerin açıklanmasında yeni çalışmalara ihtiyaç duyulduğunu öne sürerek tartışır. Bu noktada, mevcut çalışma, tartışmayı Türkçe tümce içi yapılarıdaki sessiz üye olgusunu Sakamoto (2016)’da ele alınan evre-temelli yaklaşımı benimseyerek geliştirmiş ve sonuç olarak, evre-temelli analizin Türkçe sessiz üye olgusunun ardındaki mekanizmayı açıklama konusunda işlevsel olduğu ve tartışmayı ileriye götürebilecek potansiyelinin bulunduğunu gözlemlemiştir.

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Introduction

The present paper analyzes the silent argument phenomenon in Turkish through their occurrences in intra-sentential structures. The silent arguments have been studied in two-sentence contexts in Turkish previously (Şener and Takahashi, 2010; and Kornfilt, 2024). As those studies provide valuable insights for understanding the issue, they also pave the way for further examination. For instance, Kornfilt (2024) discusses the findings of Şener and Takahashi (2010), and states that some of their interpretations of silent arguments as either providing sloppy or strict readings may be questionable, which means that the present understanding on Turkish silent arguments may be improved by the help of different perspectives. Congruently, the present study tries to address the issues related to the interpretation of silent arguments in intra-sentential context in Turkish through a structural perspective, first testing if Abe (2009)'s c-command resolution is also capable of explaining the phenomenon in Turkish, and then adopting Sakamoto (2016)'s phase-based analysis, which has previously been shown to work in identifying Japanese null argument structures.

Silent arguments are analyzed under two major headings cross-linguistically. These are *silent pronoun* and *argument ellipsis* analyses. These analyses are related to two different interpretations of silent arguments as *strict reading*, and *sloppy reading*, the details of which will be presented followingly. The present paper will provide an analysis of silent arguments in Turkish mainly referring to Şener and Takahashi (2010) and Kornfilt (2024) due to the fact that the literature on Turkish silent arguments is not abundant, and more importantly, these two papers provide a well-structured ground with stimulating questions for further studies on Turkish silent arguments.

To understand the *strict reading* of silent arguments, English examples given in item 1.a and 1.b may be examined:

1.a. Jason loves his mother.

1.b. Tom hates her.

When 1.b is preceded by the given context sentence (1.a), the pronoun *her* in 1.b can only refer back to *Jason's mother*. This is termed as the *strict interpretation*. The overt pronoun in 1.b refers back to the previous sentence due to Condition B of Binding. However, when the same situation is examined in Japanese, it is seen that the object pronoun may be omitted, which causes an ambiguity in interpretation as given below:

2.a. Taro-wa zibun-no hahaoya-o aisiteiru.
Taro-NOM self-GEN mother-ACC loves
“Lit. Taro loves self's mother.”

2. b. Hanako-wa e nikundeiru.
Hanako-TOP hates
“Lit. Hanako hates e.”

(Şener and Takahashi, 2010)

In 2.b above, the null object (*e*) may both refer back to *Taro's mother* (*strict reading*), or *Hanako's mother*. When it refers back to *Hanako's mother*, it is termed as *sloppy reading*. Sakamoto (2016) states that while the null arguments in Japanese were previously evaluated as instances of empty pronouns (*pro*), currently the main assumption is that they cannot always be pronominal. The availability of *sloppy reading*, an instance of which is given in 2.b, renders the empty *pro* analysis unavailable since the *sloppy reading* is not compatible with an empty pronoun. The alternative analysis that is proposed to explain the availability of *sloppy reading*

is argument ellipsis. In Şener and Takahashi (2010), the argument ellipsis analysis of 2.b is represented as given in 3 below:

3. Hanako-wa ~~zibun-no~~ ~~hahaoya-o~~ nikundeiru.
 Hanako-TOP self-GEN mother-ACC hates
 “~~Hanako hates self’s mother.~~”

In 3, the object *zibun-no hahaoya-o* (self’s mother) resides in the semantic and syntactic component, however in PF it is elided, which creates the surface order without an overt object. Şener and Takahashi (2010) elaborate their argumentation referring to Oku (1998) on the matter of elliptic nature of null arguments cross-linguistically. Oku (1998) observes that not all null arguments can be elliptic cross-linguistically by referring to Spanish data given below:

- 4.a. María cree que su propuesta será aceptada.
 Maria believes that her proposal will.be accepted
 “*Maria believes that her proposal will be accepted.*”
- 4.b. Juan también cree que *e* será aceptada.
 Juan also believes that it will.be accepted
 “*Juan also believes that it will be accepted.*”

(Oku, 1998)

In 4.b above, the subject of the embedded clause is null. If the omission of the embedded clause subject is a result of *ellipsis*, a *sloppy reading* would be expected besides the *strict reading*. However, it is stated that the null subject only stands for *Maria’s proposal*, not *Juan’s proposal* (*strict reading*). This outcome is an indication of the fact that the embedded subject in 4.b behaves in a similar fashion to the pronoun in 1.b does (*Tom hates her.*), which means that the null argument is *pronominal* (the null subject is not realized as a result of *ellipsis*, but it is a phonetically *empty pronoun*). This analysis shows that while in some languages the null arguments are *elliptic*, in some others they are *pronominal*. In that respect, Oku (1998) claims that this variation is congruous with the *scrambling* property of languages. Spanish does not allow scrambling, and thus argument ellipsis is not allowed either. On the other hand, Japanese, which is a scrambling language, allows argument ellipsis. So, the correlation proposed in Oku (1998) is as follows: *scrambling languages* = *argument ellipsis* (+); *non-scrambling languages* = *argument ellipsis* (-).

Şener and Takahashi (2010) examine the null argument phenomenon in Turkish in line with Oku (1998)’s hypothesis. If Oku’s proposal functions cross-linguistically, Turkish null argument structures are expected to show mechanisms of *argument ellipsis* since Turkish is a scrambling language (Erguvanlı-Taylan, 1984; Kural, 1993). In that respect, item 5.a and 5.b are analyzed by Şener and Takahashi (2010):

- 5.a Can [*pro* anne -si] -ni eleştir-di.
 Can his mother-3SG-ACC criticize-PAST
 “*Can criticized his mother.*”
- 5.b Mete -yse *e* öv-dü.
 Mete - however praise-PAST
 “*Lit. Mete, however, praised e.*”
 =Mete praised John’s mother. / = Mete praised Mete’s mother.

(Şener and Takahashi, 2010)

It is stated by Şener and Takahashi (2010) that when 5.b is preceded by 5.a, there is ambiguity in interpreting the null argument. The null object argument in 5.b may both refer back to *Can's mother* (*strict reading*) and *Mete's mother* (*sloppy reading*). The *sloppy reading* is considered to be an indication of ellipsis in accordance with the previous literature. The argumentation, which supports the fact that the null argument is not an empty pronoun, but a result of ellipsis is also explained by Şener and Takahashi (2010) by the help of 6.a and 6.b given below:

6.a Kim kendi-ni eleştir-di?
Who self-ACC criticize-PAST
“Who criticized himself?”

6.b Can e eleştir-di.
John criticize-PAST
“Lit. Can criticized e.”
= Can criticized himself.

(Şener and Takahashi, 2010)

They state that, in 6.b, the interpretation is “*Can criticized himself*”. However, this does not mean that the null objects in Turkish are always pronominal due to the fact that the object must be coindexed with the subject in 6.b in order to obtain the relevant meaning. This would be a clear violation of Binding Principle B if the object was an *empty pronoun* as shown in 7.a and 7.b below:

7.a *Can_i criticized pro_i.

7.b Can_i criticized self_i.

So, Şener and Takahashi (2010)’s argumentation is based on the existence of an *elided reflexive* in the object position. Similarly, the interpretation of 6.b must be obtained by the deletion of the NP, which occupied the object position before it was elided:

8.a Can_i criticized his_i mother.

8.b Mete_j praised his_j mother.

(Şener and Takahashi, 2010)

In the same study, the interpretation of quantifier phrases (QPs) is also implemented to provide further support for *ellipsis analysis* of null objects in Turkish. The details of the related analysis will not be given in the present study (see Şener and Takahashi, 2010). Şener and Takahashi (2010) proposes that Turkish is expected to show similarity to Japanese in terms of null arguments considering the previously mentioned correlation between scrambling and argument ellipsis. One point of variation between Turkish and Japanese is stated to be the unavailability of subject ellipsis in Turkish, while it is available in Japanese. Although this diversification seems like to cause a problem for Oku (1998)’s hypothesis on the correlation between scrambling languages and argument ellipsis, in Şener and Takahashi (2010) this is resolved through agreement (Chomsky, 1995, 2000). Depending on Saito (2007)’s copying analysis of argument ellipsis to be restricted to arguments that do not partake in agreement, they conclude that the ungrammaticality of subject ellipsis in Turkish is due to the fact that subject-verb agreement is an indication of the presence of phi-features on Tense, which must be deleted by checking. Subject ellipsis is ungrammatical because of the unchecked phi-features. If the elided argument is in the subject position of the antecedent clause, the Case feature of the copied subject has already been checked and erased in the antecedent clause, preventing it from getting into a checking relation with the Tense, and thus prohibiting subject ellipsis in Turkish. Since Japanese lacks agreement, both subject and object arguments can be elided, which also means

that head of Tense and little *v* lack phi-features. In accordance with this, it is natural to assume that in Turkish, which does not show object-verb agreement, argument object ellipsis is allowed, while argument subject ellipsis is not. Additionally, Şener and Takahashi (2010) strengthen their claim by showing that, when the subject argument does not get into agreement with the verb (e.g. in complement or adjunct clauses) *sloppy reading* for the empty subject can be gathered, which indicates that the null subject is elliptic.

Background to the Study

In this section, the null argument phenomenon in Turkish and how it is studied cross-linguistically will be presented. The studies that are going to be detailed in this section are the ones, which basically comprise the main theoretical background of the present study.

Kornfilt (2024)'s Addendum on Şener and Takahashi (2010)

Kornfilt (2024) examines null-argument phenomenon in Turkish by elaborating Şener and Takahashi (2010)'s analysis through questioning the validity of *scrambling-argument ellipsis correlation*. In the related work, some of the interpretations on null-argument structures provided by Şener and Takahashi (2010) are challenged by collecting the intuitions of several native Turkish speakers. For instance, in 9.a and 9.b given below, Şener and Takahashi (2010) claim that in 9.b the only reading that is obtained is the *strict reading*, (*sloppy reading* is unavailable), which is considered to indicate that in Turkish the null subject may be an empty pronoun resembling the null subjects in Spanish.

9.a. Can [[pro öneri-si]-nin kabul ed-il-eceğ-i]-ni düşün-üyor.
 Can his proposal-3SG-GEN accept do-PASS-FUT.NOM-3SG-ACC think-
 PRES.PROG.3SG
 “John thinks that his proposal will be accepted.”

9.b. Aylin-se [e redded-il-eceğ-i]-ni düşün-üyor.
 Aylin-however reject-PASS-FUT.NOM-3SG-ACC think-PRES.PROG.3SG
 “Lit. Aylin, however, thinks that e will be rejected.”

(Şener and Takahashi, 2010)

Kornfilt (2024) reports that, out of her informal poll, although a similar outcome has been obtained, there are also instances where a similar item allowed for only the *sloppy reading* for the majority of Turkish speakers, which also means that it is not always possible to derive the *strict reading*. (See item 10 given below):

10. Can, öneri-sin-i herkes-le paylaş-tı, Aylin-se e
 Can proposal-POSS.3SG-ACC everyone-with share-PAST.3SG Aylin-however (it)
 kimse-ye oku-t-ma-dı.
 nobody-DAT read-CAUS-NEG-PAST.3SG
 “Can shared his proposal with everybody, but Aylin didn’t let anyone read (it).”

(Kornfilt, 2024)

Out of the outcomes that are obtained, Kornfilt (2024) states that the *pronominal/strict* reading is not always possible. There is a competing *sloppy/elliptical* reading that emerges due to possible pragmatic reasons. As it has previously been mentioned, the existence of *sloppy reading* is considered to be an indication of *ellipsis*. Kornfilt (2024) states that in Şener and Takahashi (2010), for the silent direct object in the second part of item 10, an ambiguity should

be expected, however, in her survey, out of nine speakers, seven of them reported to have only one type of reading, which is the *sloppy* one (*what Aylin did not let anyone to read was her own proposal, not Can's*). According to Kornfilt (2024), the reason of obtaining the *sloppy reading* depends on pragmatic grounds, due to the fact that *Aylin is most likely to have control over her own actions* (letting someone to read her own proposal, but not someone else's). This interpretation is gathered via the existence of negation on the second verb and the negative polarity item *kimse* "nobody" in the second part of the sentence.

Another challenge by Kornfilt (2024) against Şener and Takahashi (2010) is about the absence of agreement and its impact on possibility of ellipsis. For the discussion, Kornfilt (2024) refers to Şener and Takahashi (2010)'s above-given example (5.a and 5.b repeated below as 11.a and 11.b):

11.a Can [pro anne -si] -ni eleştir-di.

Can his mother-3SG-ACC criticize-PAST.3SG
 "Can criticized his mother."

11.b. Mete -yse e öv-dü.

Mete - however praise-PAST.3SG
 "Lit. Mete, however, praised e."

=Mete praised John's mother. / = Mete praised Mete's mother.

In 11.b, the null direct object is ambiguous according to Şener and Takahashi (2010), which has also been approved by Kornfilt (2024) stating that for most of the participants the above-mentioned reading is valid. However, in the same study, it is also reported that two of the consultants have not derived *sloppy reading*. Furthermore, it is also stated that the unavailability of *sloppy reading* is more strongly supported by the items given below, in which the silent argument is in the subject position:

12.a. [pro anne-si], Can tarafından eleştir-il-di.

(his) mother-3SG Can by criticize-PASS-PAST.3SG
 "His mother was criticized by Can."

12.b. e Mete tarafından-sa öv-ül-dü

Mete by-however praise-PASS-PAST.3SG

"But e was praised by Mete."

Kornfilt (2024) states that all of the participants have disallowed a *sloppy reading* in 12.b, and the two participants who ruled out a *sloppy reading* for 11.b have not reported a difference between 12.b and 11.b, which means that the presence or absence of agreement between the silent argument and the verb does not affect the interpretations (12.b = *agreement* (+); 11.b = *agreement* (-)). Overall, it is concluded that while agreement is necessary for preventing the *sloppy reading* for an argument, it is not a sufficient condition. Ellipsis is not always blocked by agreement, and when there is no agreement between the argument and the verb, the possibility of ellipsis is not always certain.

Considering Şener and Takahashi (2010)'s evaluation on the correlation between scrambling languages and ellipsis, Kornfilt (2024) reformulates the issue by narrowing it down to particular constructions in which scrambling actually takes place instead of a general "scrambling language" phenomenon. For instance, while two of nine consultants did not accept a *sloppy reading* for 11.a and 11.b (*Can annesini eleştirdi, Meteyse övdü.*), the same speakers state that a *sloppy reading* is available when the argument is topicalized as given in 13.a and 13.b:

13.a [pro anne -sin]-i_i Can t_i eleştir-di.
 his mother-3SG-ACC Can criticize-PAST.3SG
 “Lit. His mother, CAN criticized.”

13.b. e_i Mete -yse t_i öv-dü.
 Mete - however praise-PAST.3SG
 “Lit. Mete, however, praised e.”

Similarly, while the same speakers refused a *sloppy reading* in 9.a and 9.b given above, they accepted a *sloppy reading* when topicalization takes place as given in 14.b below:

14.a. [pro öneri-si]-nin Can [t_i kabul ed-il-eceğ-i]-ni düşün-üyor.
 (his)proposal-3SG-GEN Can accept do-PASS-FUT.NOM-3SG-ACC think-
 PRES.PROG.3SG
 “Lit. Can thinks that his proposal will be accepted.”

14.b. e_i Aylin-se [t_i redded-il-eceğ-i]-ni düşün-üyor.
 Aylin-however reject-PASS-FUT.NOM-3SG-ACC think-PRES.PROG.3SG
 “Lit. Aylin, however, thinks that e will be rejected.”

For Kornfilt (2024), item 14.a and 14.b are striking examples to understand the relationship between agreement and argument ellipsis. As seen in 14.b, the null argument is the subject of the embedded clause, which is in agreement with the embedded clause verb; however, the *sloppy reading*, that is a result of ellipsis is not inhibited. So, it is further indicated that agreement is overridden by scrambling/topicalization. When Kornfilt (2024) is overviewed, it can be stated that the relationship between argument ellipsis and the phenomena like agreement, and scrambling is not totally rejected, however the strength of that correlation should be weakened considering the variations of the speakers’ intuitions. Instead of absolutes, Kornfilt (2024) mentions tendencies, which may be formed with individual lexical properties of verbs and some other contextual variables. Furthermore, the effect of scrambling is considered to be important in terms of topicalization, but not through a general perspective including scrambling languages as a holistic classification.

The Null Argument Phenomenon In Intra-Sentential Structures and C-command

Abe (2009) makes a generalization on c-command and the (un)availability of argument ellipsis.

15. John-wa zibun-no musume-ni [sensei-ga e aitagatteiru to] itta.
 John-TOP self-GEN daughter-DAT teacher-NOM want.to.see C said
 Lit: “John told self’s daughter that the teacher wanted to see e.”

Abe (2009) states that in sentence 15, while *strict reading* is available, it is not possible to derive *sloppy reading*. It is observed that the null argument in the embedded clause is c-commanded by the antecedent *zibun-no musume* (self’s daughter) and as a result of this, the *sloppy reading*, which causes the following interpretation “the teacher wanted to see the teacher’s own daughter” is not available in the sentence. The sentence can only be interpreted as “John_i told his_i daughter that the teacher wanted to see his_i daughter.” This observation is considered by Abe (2009) to be an indication of the non-availability of argument ellipsis in the above-given construction since the null argument is c-commanded by the antecedent *zibun-no musume* (self’s daughter). If argument ellipsis had been operational, the *sloppy reading* would have been available; however, it is not. Moreover, it is also stated that even in intra-sentential

contexts, argument ellipsis may be available when the potential antecedent does not c-command the null argument as given in 16 below:

16. [NP [RC Zibun-no gakusei-o sikatta] sensei]-ga Yamada sensei-ni
[PRO

Self-GEN student-ACC scolded teacher-NOM Yamada teacher-DAT
^ sikaranai yooni] tyuukokusita.
not.scolded c.INF advised

Lit: "A teacher who scolded self's student advised Prof. Yamada not to scold ^."

In sentence 16, the antecedent *zibun-no gakusei* (self's student) is inside the embedded clause, which means that it cannot c-command the null argument. In terms of the interpretations that can be derived out of 16, it is possible to state that both the *sloppy* and *strict readings* are available. Sentence 16 may both mean, "*Prof. Yamada is advised not to scold his own student*", and "*is advised not to scold the same student who has already been scolded by the subject of the main clause (a teacher).*"

Sakamoto (2016)'s Phase-Based Analysis On Null Arguments In Japanese

Sakamoto (2016) states that although Abe (2009)'s generalization is capable of explaining some structures with null arguments, two specific types of constructions still seem problematic. One of these is possessive phrases. Items 17 and 18 are taken from Sakamoto (2016), in which the co-indexation between the possessor pronoun and the NP *Taro* in sentence 17 is compared with sentence 18:

17. Hanako-wa [kare₁-no hahaoya]-ni [sensei-ga Taroo₁-ni aitagatteiru to] itta.

Hanako-TOP he-GEN mother-DAT teacher-NOM Taro-DAT wants.to.see C said

"Hanako told his₁ mother that the teacher wanted to see Taro₁."

In 17, the possessive pronoun *kare-no* is inside the dative phrase of the matrix clause, and it can be co-indexed with *Taro*, which is in the embedded clause. Based on the assumption that the possessive resides in the specifier position, this observation is an indication of the fact that the antecedent does not c-command the bound NP *Taro* (Sakamoto, 2016). With this rationale, it is stated that, in item 18, the possessive phrase *zibun-no tomodati* (self's friend) must be capable of serving as the antecedent of the null object in the embedded clause if Abe (2009)'s generalization works:

18. Hanako-wa [[zibun-no tomodati]-nohahaoya]-ni [sensei-ga *e* aitagatteiru to] itta.

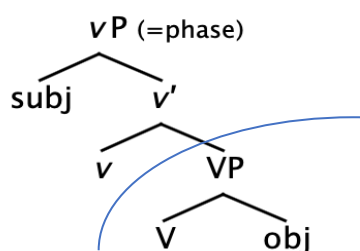
Hanako-TOP self-GEN friend-GEN mother-DAT teacher-NOM wants.to.see C said

"Lit: Hanako told the mother of self's friend that the teacher wanted to see e."

Since it is not possible to interpret item 18 as "*Hanako told the mother of self's (Hanako's) friend that the teacher wanted to see self's (the teacher's) friend*" it is concluded that *zibun-no tomodati* (self's friend) cannot be the antecedent of the null argument and Abe (2009)'s generalization does not work in explaining the structure. At this point, Sakamoto (2016) proposes that a phase-based transfer analysis is capable of explaining the issue and may clarify the mechanism functioning in the related setting. In 18 above, the possessive phrase *zibun-no tomodati* (self's friend) cannot be subjected to Transfer before completion of the phase inside the embedded clause, which includes the object. Sakamoto (2016)'s proposal is based on the following hypotheses: *Derivations proceed bottom up*, *syntactic derivations are cyclically transferred*, and *syntactic operations are applied in a phase-by-phase fashion*. Adopting these hypotheses, in the center of the argumentation resides Chomsky (2000, and 2001)'s assumption: the complement of a phase is the transfer domain of the phase. The phase itself is not a transfer

domain. As known, CPs and vPs are phases, and for instance, when the vP phase is completed, not the vP itself, but its complement VP undergoes Transfer as shown in 19:

19.



In 19, the part of the diagram located beneath the curved line is the *transfer domain*. Considering the minimalist hypotheses mentioned above, as an alternative to Abe (2009)'s generalization, Sakamoto (2016) proposes the following condition on the relationship between elliptic arguments and their antecedents: *Only an argument which has already been transferred can be an antecedent for elliptic arguments*. According to this proposal, for argument ellipsis to take place, an already transferred antecedent targeting a potential domain is needed when the phase including it is computed.

In the above-given lines, Abe (2009)'s and Sakamoto (2016)'s analyses have been presented in explaining null argument phenomenon in Japanese. Abe (2009) makes a generalization and deduces that argument ellipsis does not apply to an argument if it is c-commanded by its antecedent. Contra to this, Sakamoto (2016) states that although Abe's generalization works for some structures with null arguments in Japanese, it does not work for possessives. In line with this, a phase-based analysis is proposed by Sakamoto (2016). In the present section, first, Abe (2009)'s generalization will be tested on intra-sentential null argument structures in Turkish. It will be shown that, while it is capable of explaining some phenomena, resembling the case in Japanese, it does not provide an explanation for the possessive structures in Turkish. Then, it will be shown that when Sakamoto (2016)'s phase-based analysis is applied on Turkish null argument structures with possessives, a more inclusive explanation is provided.

Analysis and Discussion

Following a similar argumentation to Abe (2009)'s c-command generalization, if Turkish example given in item 20 is examined, a similar mechanism seems like to be at work also in Turkish:

20. Can kız-ı-(n)a [öğretmen-in *e* çağır-dığ-ını] söyle-di.
 Can daughter-POSS-DAT teacher-POSS call-IND-3SG.POSS say-PAST
 "Can told her daughter that the teacher called *e*."

In 20, the NP "kız (daughter)" c-commands *e*, which is located deeply in the embedded clause. It is already reported that if the antecedent c-commands the null argument, ellipsis is not available, which also rules out the *sloppy reading* interpretation. Since in sentence 20, the *silent argument* may only refer to *Can's daughter*, but not to the *teacher's daughter*, only strict reading is available. So, the interpretation of 20 seems to be compatible with Abe (2009)'s generalization in terms of Turkish intra-sentential structures with null arguments. Argument ellipsis is not available when the null argument is c-commanded by its antecedent. It is further supported if sentence 21, in which the antecedent does not c-command the null argument, is observed. 21 also produces *sloppy reading*, that is an indication for argument ellipsis:

21. [NP_{RC}Öğrencisini azarlayan] Can] arkadaşına_i [PRO_i e azarlamamasını] söyledi

Student-POSS-ACC scold-REL Can colleague-POSS-DAT scold-Neg-SUBJ-ACC say-PAST

“Can, who scolded his student, told to his colleague not to scold.”

In harmony with the observations obtained by examining Japanese intra-sentential structures with null arguments, Turkish seems like to present a similar appearance. In item 21, the *sloppy reading* is available, which means that the sentence can be interpreted as following: “the colleague can be advised not to scold his/her (the colleague’s) own student”. So, when the null argument is not c-commanded by its potential antecedent, it is possible to derive the *sloppy reading*, which also relates that argument ellipsis is functional. The examination of items 20 and 21 seems like to present an outcome that is in harmony with Abe (2009)’s generalization. When the antecedent does not c-command the null argument, ellipsis can be applied, which renders the *sloppy reading* available.

Considering the above-given analyses, it may be stated that Abe (2009)’s generalization may work in explaining some null argument phenomena in Turkish. However, as previously stated, possessive structures pose a problem for Abe’s generalization in Japanese. Taking a similar stance, an analysis of null arguments in intra-sentential structures with possessive constructions in Turkish will be carried out adopting Sakamoto (2016)’s phase-based explanation in the following lines. By the help of this analysis, it will be answered if the deduction proposed by Abe (2009) will be sufficient to explain the null argument phenomenon in Turkish, or a different analysis, i.e., Sakamoto (2016)’s phase-based explanation, will be more inclusive and explanatory to understand the mentioned phenomenon in Turkish.

Sakamoto (2016) states that although the above-given Japanese intra-sentential constructions are congruent with Abe (2009)’s generalization (which are also shown to be compatible with a similar data in Turkish), in some cases, the mentioned deduction does not work with certain structures in Japanese.

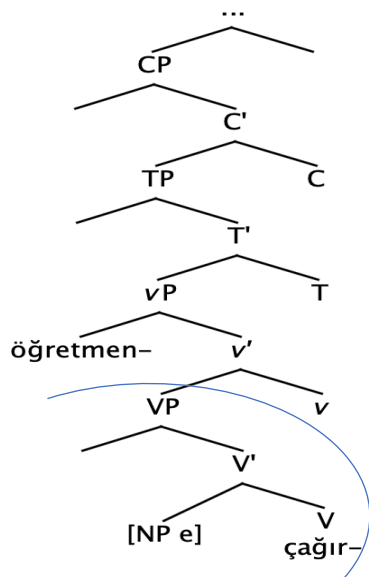
If the proposal of Sakamoto (2016) is applied onto the following Turkish sentence given in 22, which includes a null argument in an intra-sentential setting, it is clearly seen that the potential antecedent NP “kız (daughter)” c-commands *e*, rendering the argument ellipsis out and makes the *strict reading* as the single option for interpretation.

22. Can kız-ı-(n)a [öğretmen-in e çağır-dığ-ını] söyle-di.
Can daughter-POSS-DAT teacher-POSS call-IND-3SG.POSS say-PAST

“Can told her daughter that the teacher called e.”

According to the phase-based transfer analysis, the interpretation is derived in the following configuration; the bottom-up derivation will form the embedded clause first (as depicted in 23), so when the embedded vP is computed, the NP *kızına* (to his daughter) cannot serve as an appropriate antecedent for copy and merge to the vP object position since it has not been transferred yet, which renders argument ellipsis unavailable:

23.



In a similar fashion, it is also needed to check whether phase-based transfer analysis can capture the analysis of another intra-sentential structure with null argument in Turkish, but this time allowing *sloppy reading*. Sentence 24 given below is the reduplication of sentence 21 given before:

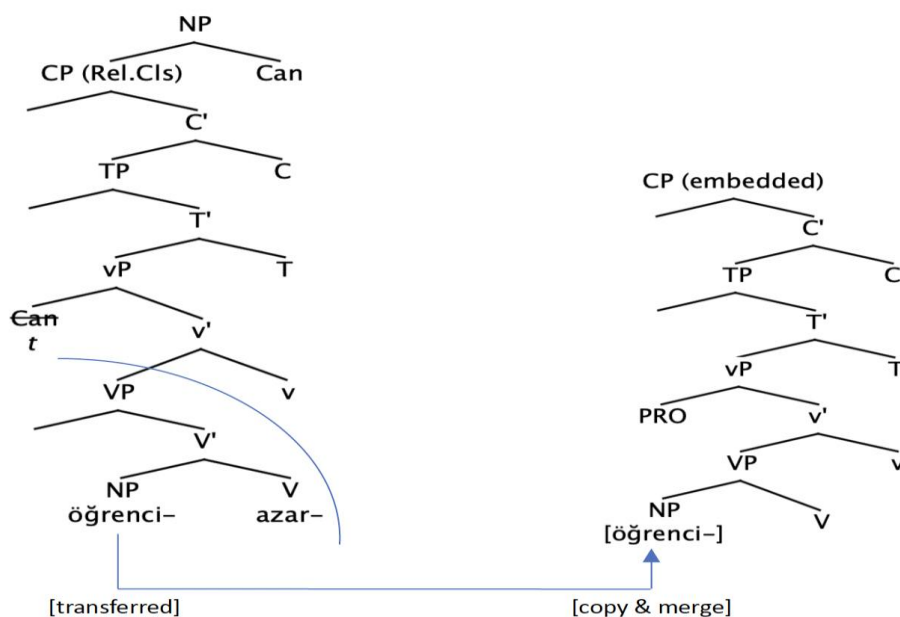
24. [NP_{RC} Öğrencisini azarlayan] Can] arkadaşına_i [PRO_i e azarlamamasını] söyledi

Student-POSS-ACC scold-REL Can colleague-POSS-DAT scold-Neg-SUBJ-ACC say-PAST

“Can, who scolded his student, told to his colleague not to scold.”

In 24, the *sloppy reading* is available, which is also an indication of argument ellipsis. The phase-based transfer analysis explains the derivation as follows; the complex subject NP *Öğrencisini azarlayan Can* (Can who scolded his student) can be formed first allowing the object NP *öğrencisini* (his student) be transferred since it is inside the phasal complement VP.

25.



In the tree diagram given above, the first representation, stands for the complex subject NP (relative clause), while the next one stands for the embedded clause with the null argument. Due to the fact that the transfer of the object NP in the phasal complement VP of the vP has been completed before the computation of the vP phase [*PRO_i e azarlamamasını* (not to scold)] given in the second representation, it can be an appropriate antecedent for the null argument, thus permitting argument ellipsis and *sloppy reading*¹.

The two structures given above support the fact that just like Abe (2009)'s generalization, Sakamoto (2016)'s phase-based transfer analysis is also operational in explaining how null argument phenomenon functions in intra-sentential structures in Turkish.

The analyses provided in the following lines will further present a different picture showing that phase-based transfer analysis is more inclusive in explaining how the derivation works in intra-sentential structures with null arguments in Turkish, in comparison to Abe (2009)'s generalization favoring a c-command based analysis.

The problematic case for Abe (2009)'s generalization in Turkish intra-sentential structures with null arguments comes from genitive-possessive structures. Sentence 26 given below includes null argument in an intra-sentential setting:

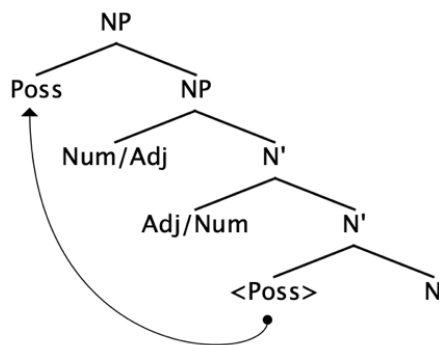
26. Can [[*pro* arkadaş-ı-nın] annes-i]-ne öğretmen*i*n e çağır*dı*ğın*i* söyledi.

Can friend-1.SG-GEN mother-3SG-POSS-DAT teacher-GEN call-IND-3SG.POSS say-PAST

"Can told his/someone's friend's mother that the teacher called e."

When sentence 26 is analyzed in terms of Abe (2009)'s generalization, it is expected that *arkadaşının* (his/someone's friend's) should serve as the antecedent of the null argument in the embedded clause due to the fact that there is no c-command relationship between the possessive and the null argument. This inference is obtained following Bošković and Şener (2014), stating that in Turkish the overt Poss (possessor) is merged below Num (number), and then adjoins to NP as shown in 27 below:

27.



¹ In 25, there are two embedded CPs, one of which is the relative clause modifying the subject NP, and the other one is the object CP. The complex subject NP is constructed first and merged into the vP as the external argument, and followingly, the complement CP is merged later as the internal argument. This assumption is compatible with the understanding that derivation proceeds bottom-up. Moreover, it is also accountable under the workspace theory.

This is also supported by the interpretation of the sentence, which is, *the one who is called is the mother of Can's friend*, but not *the teacher's friend*. This means that the null argument, that is located inside the embedded clause, cannot create *sloppy reading*. However, according to Abe (2009)'s generalization, when there is no c-command relationship between the potential antecedent and the null argument, *sloppy reading* should have been derived, which is certainly not the case in item 26. This indicates that Abe (2009)'s generalization does not operate in Turkish in the above-given structure.

However, the phase-based analysis seems like to be successful in explaining the above-given phenomenon. According to the phase-based analysis, in order to be an eligible antecedent for a null argument, a linguistic unit should be subject to transfer. Sakamoto (2016) proposes; in regard to the assumption that syntactic operations are applied in a phase-by-phase fashion (Chomsky, 2000); an appropriate (already transferred) antecedent is necessary when the phase that includes it is computed for a potential target position for argument ellipsis. However, derivations proceed bottom up, meaning that the embedded clause must be constructed first. Considering this pre-requisite, it is not possible for the possessive *arkadaşının* (his/someone's friend's), which is inside the dative phrase of the matrix clause to be the antecedent for the null object due to the fact that it has not been transferred yet. This observation has also been obtained by Sakamoto (2016) on Japanese intra-sentential structures.

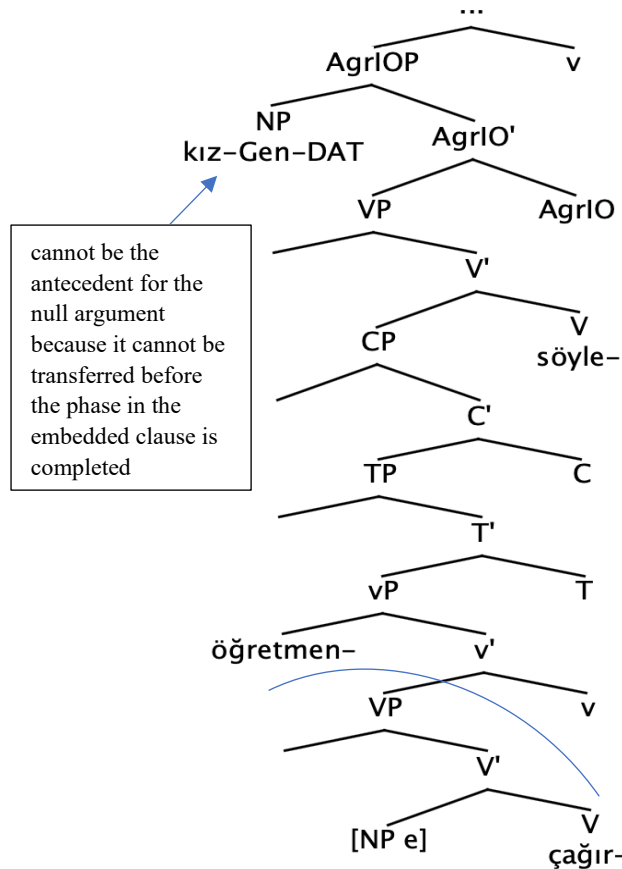
Besides the above-given analysis, the phase-based explanation also seems like to work in identifying another controversial issue on null argument phenomenon in Turkish. As it has been mentioned in the present study, Kornfilt (2024) states that the existence of a correlation between scrambling languages and ellipsis based on Şener and Takahashi (2010)'s analysis may be operative with some native speaker judgement in Turkish, the same prediction may be weakened by some other native speakers' intuitions. So, instead of a strict categorization, Kornfilt (2024) prioritizes tendencies by rejecting an absolute perspective based on the mentioned correlation and the claim that they allow argument ellipsis (Oku, 1998). Analyzing item 28 through a phase-based explanation seems like to provide an explanation for the status of the null argument in a scrambled structure in Turkish. In 28, the embedded clause is topicalized:

28. [Öğretmenin e çağırdığını]i Can kızına ti söyledi
 teacher-GEN call-IND-3SG.POSS Can daughter-POSS-DAT say-PAST

"Lit: That the teacher called, Can told to his daughter."

In 28, the only reading that can be derived is the strict interpretation, which means that the person who has been called cannot be *the teacher's own daughter*, it can only be *Can's daughter*, or the teacher might have called someone else that the reader does not know. As it is observed, the null argument is not c-commanded by its antecedent, and still *sloppy reading* is not obtained. So, it seems that the observation obtained through the examination of item 28 provides counterarguments for both Abe (2009)'s generalization and the generalization on the correlation between scrambling and argument ellipsis allowance. However, a phase-based approach seems like to provide an explanation, which is as follows: since an elliptic argument needs an antecedent, which should already be transferred, the target for the argument ellipsis must have an already transferred antecedent when the phase including it is computed.

29.



In 29 above, the null argument inside the topicalized embedded clause needs an already transferred antecedent; however, due to the fact that derivations proceed bottom up (Chomsky, 1995), the NP *kızına* (to his daughter) inside the main clause cannot be a potential antecedent for the null argument because it has not been transferred before the phase that includes the object inside the topicalized embedded clause is completed.

Out of the analyses given above, it seems that in order to explain the status of null arguments in intra-sentential structures in Turkish, Sakamoto (2016)'s phase-based approach seems to be more inclusive in comparison to Abe (2009)'s generalization on the correlation between scrambling languages and the argument ellipsis analysis, especially when structures with possessive phrases and scrambling are taken into consideration.

Conclusion

In the present study, null arguments in Turkish in intra-sentential structures are analyzed through a phase-based perspective. As it has been mentioned, although there are some studies on the mentioned phenomenon in Turkish, the analyses do not discuss the issue through intra-sentential structures. Besides this, it is already apparent that different studies have come up with different outcomes on the basis of interpretation variations of similar structures, which prevents deriving a consistent analysis on the topic (e.g. Şener, and Takahashi, 2010; and Kornfilt, 2024). Previous observations in the literature seem like to pave the way for further analyses. Considering the mentioned concerns, the present study tries to provide a different perspective on the understanding of null arguments in Turkish by examining the intra-sentential structure adopting Sakamoto (2016)'s phase-based analysis. For that aim, the intra-sentential structures in Turkish are first examined in the light of Abe (2009)'s generalization on the correlation between the existence of c-command and the unavailability of argument ellipsis, thus sloppy

reading. It is observed that the mentioned generalization works for explaining Turkish intra-sentential structures with null arguments to a certain degree; except two other phenomena (possessive structures and scrambling). Analysis of null arguments in intra-sentential structures with possessive phrases shows that Abe (2009)'s generalization cannot explain why sloppy reading is not obtained although there is no c-command relationship between the potential antecedent and the null argument. The problem is solved through Sakamoto (2016)'s phase-based analysis. Due to the fact that the derivations proceed bottom-up, the potential antecedent in the matrix clause cannot serve as the antecedent of the null argument since it cannot be transferred yet. The second finding is about the null arguments in intra-sentential context with scrambling. The generalization proposing that scrambling languages allow argument ellipsis is also shown not to work properly with Turkish scrambling structures. It is observed that sloppy reading is not always obtained even if the null argument is not c-commanded by the potential antecedent in a scrambled structure. However, through Abe (2009)'s generalization, a sloppy reading should have been obtained in the related scrambling condition. At this point, once more phase-based analysis seems to be functional in explaining the phenomenon. Taking the following premises into consideration: *derivations proceed bottom up* (Chomsky, 1995), and *syntactic derivations are applied in a phase-by-phase fashion* (Chomsky, 2000), the fact that sloppy reading is not obtained even though the null argument is not c-commanded by the potential antecedent is because the null argument in the topicalized embedded clause needs an already transferred antecedent, but this is not realized because of bottom-up derivation makes it impossible for the potential antecedent to be transferred before the phase including the object in the scrambled embedded clause is attained.

To summarize, it is observed that some intra-sentential structures with null arguments in Turkish, which were formerly specified to be unexplained via certain assumptions, seem to be explained by using a phase-based analysis. However, it should still be noted that the observations in the present study are gathered out of a limited set of sentences, which makes it clear that a more comprehensive perspective in further studies may contribute to the development of the argumentation on the related phenomenon.

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