**Ki-Clauses in Turkish: A Paratactic Analysis**

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**Abstract**

This paper proposes a unified treatment for Turkish embedded clauses headed by the complementizer *ki*, an element known to be borrowed from Persian. Embedded *ki*-clauses are generally thought of as just another case of subordination, albeit with an ‘Indo-European’ pattern. However, arguments are provided that *ki*-clauses are *paratactic assertions*, that is, paratactic clauses with their own assertoric illocutionary force. The puzzling root-clause character of these clauses, as well as their characteristic syntactic/semantic behavior with respect to word order, NPI-licensing, *wh*-questions, binding, and focusing adverbs are explained by virtue of this paratactic-assertoric analysis. The presented account of *ki*-clauses is derivational, capturing the relationship that the *ki*-clause has with a position inside the matrix clause through an adaptation of Torrego and Uriagereka’s (2002) analysis of parataxis used for *como*-clauses in Spanish, and Yoon’s (2011) paratactic analysis of Korean subjunctive and evaluative negation constructions.

1 Introduction

Turkish *ki*-clauses are embedded clauses headed by the so-called complementizer *ki*. They have generally been assumed to be subordinate clauses of the Indo-European style, due to the fact that the element *ki* was borrowed into Turkish from Persian (Kornfilt 1997: 2005; Göksel and Kerslake 2005). *Ki*-clauses are characterized by an overt complementizer, namely *ki*, SVO word order, a subject in the nominative, and finite verbal forms:

(1)  Hakan san-iyor-Ø    [ *ki* Ahmet okul-a  git-ti-Ø  ].
    Hakan believe-Prog-3Sg  *ki* Ahmet school-Dat go-Pst-3Sg
    ‘Hakan believes that Ahmet went to School.’

The *ki*-clause is not the most frequent type of clause embedding in Turkish. The most common embedded clause type is the nominalized subordinate clause (aka the ‘native’

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2 PROPERTIES OF KI-CLASSES

Nominalized subordinate clauses are case-marked, appear with a genitive subject, exhibit nominal agreement, and — in their default position — precede the matrix verb, conforming therefore to the standard Turkish SOV pattern:

(2) Hakan-Ø [ Ahmet-in okul-a git-tiğ-in ] i san-iyor-Ø.
Hakan-Nom Ahmet-Gen school-Dat go-DIK-3Poss -Acc believe-Prog-3Sg
‘Hakan believes that Ahmet went to School.’

Thus, unlike the native nominalized subordinate clauses, *ki*-clauses exhibit SVO word order and some other unusual surface properties. The subordination analysis of the *ki*-clause attributes these properties to foreign origin (i.e., their ‘Indo-Europeanness’), but apart from this, treats it in essentially the same way as any other subordinate clause. However, the subordination analysis cannot account for many properties of *ki*-clauses. Section 2 presents various properties of *ki*-clauses in Turkish, and shows why a subordination analysis of *ki*-clauses is not tenable. Evidence is presented that *ki*-clauses are assertions, and as such, independent expressions which have their own illocutionary force. In section 3, it is argued that the *ki*-clauses exhibit features that are incompatible not only with subordination, but with standard coordination as well, and that *ki*-clauses are, instead, paratactically connected to their matrix clauses. A derivational account is then provided in order to capture the relationship that the *ki*-clause has with a position inside the matrix clause. The non-standard surface properties of the *ki*-clause, as well as their characteristic behavior with respect to NPI-licensing, *wh*-questions, binding, and focusing adverbs, are all explained by virtue of this paratactic-assertoric analysis. Finally, section 5 concludes the paper.

2 Properties of *ki*-clauses

It is important to note that *ki*-clauses exhibit main/root clause properties. As shown in (1), repeated here as (3), *ki*-clauses have a subject with nominative case, verbal agreement, and do not impose restrictions on the tense and aspect markers that can occur in them. As such, *ki*-clauses essentially resemble Turkish main clauses (4).

(3) Hakan san-iyor-Ø [ *ki* Ahmet-Ø okul-a git-ti-Ø ].
Hakan believe-Prog-3Sg *ki* Ahmet-Nom school-Dat go-Pst-3Sg
‘Hakan believes that Ahmet went to School.’

Further note that *ki*-clauses are ruled out from non-root positions such as complex DP complements:

Everybody *ki* Ahmet very sick-Cop-3Sg claim-CMPM -Acc believe-Prog
Intended: ‘Everybody believes the claim that Ahmet is very sick.’

Everybody believe-Prog *ki* Ahmet very sick-Cop-3Sg claim-CMPM -Dat
Intended: ‘Everybody believes the claim that Ahmet is very sick.’
The root-clause character of *ki*-clauses is not accidental, as it will be shown to be closely related to some of the *ki*-clauses’ semantic/pragmatic properties described below, most notably to their property of having an independent illocutionary force of assertion.

2.1 Assertiveness of *ki*-clauses

The main clause predicate that combines with a *ki*-clause has to be assertive, as in (5)–(6). Note that predicates that are non-assertive cannot take a *ki*-clause, as shown in (7)–(8):²

(5) Anla-dı-m * ki hiçbir şey eskisi gibi ol-ma-yacak-Ø.
    realize-Pst-1Sg * ki nothing old like be-Neg-Fut-3Sg
    ‘I realized that nothing will be as before.’

(6) Ahmet san-iyor-Ø * ki herşey yol-un-da.
    believe-Prog-3Sg * ki everything way-3Poss-Loc
    ‘Ahmet believes that everything is going alright.’

(7) Non-assertive (true factive) matrix predicate
    a. *Pişman-Ø-im * ki Londra-ya taşın-dı-m.
       regret-Cop-1Sg * ki London-Dat move-Pst-1Sg
       Intended: ‘I regret that I moved to London.’
    b. *(Çok) Şaşır-dı-m * ki Ahmet gel-di-Ø.
       (very) be.surprised-Pst-1Sg * ki Ahmet come-Pst-3Sg
       Intended: ‘I am/got (very) surprised that Ahmet came.’

(8) Non-assertive (non-presuppositional) matrix predicate
    a. *Mümkin * ki Ahmet gel-ecek-Ø.
       Possible * ki Ahmet come-Fut-3Sg
       Intended: ‘It’s possible that Ahmet will come.’
    b. *Muhtemel * ki Ahmet kazan-acak-Ø.
       Likely * ki Ahmet win-Fut-3Sg
       Intended: ‘It’s likely that Ahmet will win.’

Note that grammatical examples such as (9) are only apparent exceptions to the claim that *ki*-clauses are assertions. Although the main clause verb appears to be non-assertive (true factive), expressions such as ‘I’m afraid’ and ‘I’m sorry’ are assertive in such cases because they introduce new information into the common ground.³

²For a detailed overview of the notion assertion, see Hooper and Thompson (1973) and Hooper (1975).
³In fact, the particular construction in (9) with a non-assertive verb and *ki* can only be used to introduce new information into the discourse. That is, this construction cannot be used in a situation where discourse participants already know that Ahmet won’t be able to come and one of the participants expresses his/her feelings regarding Ahmet’s not coming. In that case, a nominalized clause such as (i) would be used instead:
The next phenomenon to be addressed is negation, which is closely linked to the issue of assertion.

### 2.2 Negation and ki-clauses

Examples (10)–(11) show that a matrix clause with an assertive predicate that is negated or an inherently negative predicate cannot combine with a ki-clause. This is not surprising, as a negated matrix predicate would imply that the content of the proposition in the ki-clause is already part of the common ground, which is in conflict with the assertive character of ki-clauses.\(^4\)\(^5\)

#### (10) Negated matrix verb

- a. *Anla-ya-ma-dı-m ki hiçbir şey eskisi gibi ol-ma-yacak-Ø.*
  
  realize-Abil-Neg-Pst-1Sg ki nothing old like be-Neg-Fut-3Sg
  
  Intended: ‘I couldn’t realize/understand that nothing would be as before.’

- b. *Ahmet san-mı-yor-Ø ki herşey düzenecek.*
  
  Ahmet believe-Neg-Prog-3Sg ki everything will be alright
  
  ‘Ahmet does not believe that everything will be alright.’

#### (11) Matrix clause with an inherently negative verb

  
  Doubt do-Pres-1Sg ki everything will be alright
  
  Intended: ‘I doubt that everything will be alright.’

- b. *Başbakan inkar et-ti-Ø ki kitap-Ø yasakla-n-di-Ø.*
  
  Prime minister deny do-Pst-3Sg ki book-Nom forbid-Pass-Pst-3Sg
  
  Intended: ‘The prime minister denied that the book was forbidden.’

\(^4\)Göksel and Kerslake (2005, p. 409) mention that the main predicate that preceded a ki-clause is rarely cast in an interrogative or negative form. However, no explanation is given as to why this is the case.

\(^5\)It follows from this that a negative polarity item cannot be licensed by a negative element in the matrix clause. Note that in the more common nominalized SOV-type subordination pattern of Turkish an NPI can be licensed by a negative element in the matrix clause as the following example shows:

#### (i) [Kimse-nin gel-me-si]-ni iste-mi-yor-um.

[Nobody-Gen come-MA-3Poss]-Acc want-Neg-Prog-1Sg

‘I don’t want (for) anybody to come.’
The incompatibility of negation with *ki*-clauses is not due to structural conditions, but to pragmatic restrictions instead. In (12), the matrix predicate is non-assertive (a true factive) and is negated, yet is still able to take a *ki*-clause:

(12)  Unut-*ma*-Ø     *ki* sen de kul-sun.
     Forget-*Neg*-Imp.2Sg ki you too mortal-Cop.2Sg
     ‘Don’t you forget that you too are mortal/human.’

The crucial point here is that the (imperative) predicate in (12) does not negate the proposition in the *ki*-clause; the content of proposition in the *ki*-clause is still asserted.\(^6\)

Cases of a negative predicate taking a *ki*-clause are very rare, but they are not *a priori* ruled out. Negation in the matrix clause is grammatical as long as it does not negate the content of the proposition of the *ki*-clause.\(^7\)

### 2.3 Questions and *ki*-clauses

Questioning of a *ki*-clause is ruled out (13). To question the content of a proposition would entail that it already is part of the common ground. This is incompatible with the assertive, non-presuppositional character of *ki*-clauses.

(13)  *Questioned matrix clause*

   a.  Isti-yor-Ø     *ki* yarın okul-a git-me-sin.
       want-Prog-3Sg ki tomorrow school-Dat go-Neg-3Sg.Opt
       ‘S/he wants that s/he does not go to school tomorrow.’

\(^6\)In (12), the matrix clause predicate is in the imperative. In all other forms (past, aorist, progressive, etc.) this sentence is ungrammatical, as in (i). In such cases, the negation negates the proposition in the *ki*-clause, and the *ki*-clause is necessarily presuppositional:

(i)  *Unut-*ma-di-m     *ki* sen de kul-sun.
     forget-*Neg*-Pst-1Sg ki you too mortal-Cop.2Sg
     Intended: ‘I didn’t forget that you are mortal/human, too.’

\(^7\)There is another case of a negated predicate taking a *ki*-clause, namely the epistemic *san-*mak ‘to believe’. In that case, the epistemic predicate is limited to 1\(^{st}\)person and the *ki*-clause is necessarily in the subjunctive. That negated epistemics may select for an embedded main clause that is in the subjunctive only is not a phenomenon restricted to Turkish. In German, too, root clauses resist embedding under negation unless the root clause is in the subjunctive mood (see Meinunger 2006). A similar phenomenon might be cases of polarity subjunctives in some Romance languages, where negated epistemic predicates in the first person require a subjunctive complement. I will leave the issue of negated epistemics and subjunctive mood aside for now. However, it should be noted that even in such cases a negative polarity item within the *ki*-clause cannot be licensed by negation in the matrix clause. This restriction follows from the structural position of *ki*-clauses. As will be shown in later sections, such negative polarity items are not c-commanded by the negative element in the matrix clause.

(i)  *Zannet-*mi-yor-um     *ki* kimse Ahmet-i sev-sin.
     believe-*Neg*-Prog-1Sg ki anybody Ahmet-Acc love-Subj3
     Intended: ‘I don’t believe that anybody should love Ahmet.’
b. *Kim isti-yor-Ø ki yarın okul-a git-me-sin?
   Who want-Prog-3Sg ki tomorrow school-Dat go-Neg-2Sg.Opt
   Intended: ‘Who wants that s/he does not go to school tomorrow?’

c. *Isti-yor mu-Ø ki yarın okul-a git-me-sin?
   want-Prog Q-3Sg ki tomorrow school-Dat go-Neg-2Sg.Opt
   Intended: ‘Does s/he want that s/he does not go to school tomorrow?’

Not only is it not possible to question the *ki*-clause, but a *wh*-phrase inside the *ki*-clause also leads to ungrammaticality, as already shown by Kornfilt (1997, p. 13):

(14) *Questions within the *ki*-clause
       Hear-Pst-2Sg that Ali who-Acc love-Prog.
       Intended reading: ‘Whom did you hear that Ali loves?’

       believe-Prog-2Sg that Ali home-3Sg-Abl. why/how escape-Pst
       Intended reading: ‘Why/How do you believe that Ali ran away from home?’

The restriction on the *ki*-clause-internal *wh*-phrases also follows from the assertiveness of *ki*-clauses: questions do not add a proposition content to the common ground, hence nothing is asserted. Also note that if the *ki*-clause were a subordinate clause, there would be no reason as to why *wh*-extraction is not allowed.8

2.4 Fixed position – no topicalization

*Ki*-clauses can never be subjects or be topicalized. The position of *ki*-clauses is necessarily fixed to the right of the matrix clause:9

    [ki Ahmet Londra-Dat fly-Pst-3Sg ] obvious/ know-Pass-Prog
    Int.: ‘That Ahmet flew to London is obvious/known.’  
    *Subject *ki*-clause

    [ki Ahmet London-Dat fly-Pst-3Sg ] we know-Prog-1Pl
    Intended: ‘That Ahmet flew to London, we know.’  
    *Topicalized *ki*-clause

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8The nominalized subordinate clauses corresponding to (14) are grammatical.
9Note that the corresponding nominalized subordinate clauses are not restricted in such ways:

(i) [Ahmet-in Londra-ya uç-tuğ-u ]-Ø belli/ bil-in-iyor.
    [Ahmet-Gen London-Dat fly-DIK-3Sg ]-Nom obvious/ know-Pass-Prog
    ‘That Ahmet flew to London is obvious/ well-known.’

(ii) [Ahmet-in Londra-ya uç-tu-ğ-un ]-u biz bil-iyor-uz.
    [Ahmet-Gen London-Dat fly-DIK-3Sg ]-Acc we know-Prog-1Pl
    ‘That Ahmet flew to London, we know.’
The fact that *ki*-clauses, but not nominalized subordinate clauses, show this restriction is puzzling under a standard subordination analysis. However, this property of *ki*-clauses is easily explained if they are analyzed as assertions. Assuming Diesing’s (1992) Mapping Hypothesis, both the topialized clause and the sentential subject clause belong to the restrictive clause in the quantification structure, thus having a presuppositional interpretation. Hence, being assertions, it is not a surprise that *ki*-clauses cannot occur in such positions.

### 2.5 Incompatibility with presupposition triggers

If *ki*-clauses mark assertion, they should be incompatible with presupposition triggers. As the following example shows, this prediction is borne out:

(17) Ahmet (*bile/de) san-iyor-Ø *ki* Ali ban-a yalan söyle-di-Ø.
    Ahmet (even/also) believe-Prog-3Sg *ki* I-Dat lie say-Pst-3Sg
    Intended: ‘Even Ahmet believes that Ali lied to me.’

### 2.6 Incompatibility with focusing adverbs

Focusing adverbs must c-command the focused constituent they are associated with. *Ki*-clauses are not compatible with focusing adverbs in the matrix clause, that is, a *ki*-clause or any constituent within the *ki*-clause cannot associate with a focusing adverb within the matrix clause.

(18) Ahmet (*sadece) anla-dı-Ø *ki* Ali davet ed-il-di-Ø.
    Ahmet (only) realize-Pst-3Sg *ki* I-Dat invite do-Pass-Pst-3Sg
    Intended: ‘Ahmet only realized that Ali was invited.’

The ungrammaticality of (18) indicates the *ki*-clause must be in a position that is not c-commanded by the focusing adverb. This is incompatible with the subordination analysis.

### 2.7 Causative clauses and scope of negation

Negative sentences with a causative adjunct allow for ambiguity depending on whether the causative is inside or outside the scope of negation (Williams 1974, p. 142). Such ambiguity can be seen in the following example where the causative subordinate clause is nominalized:

(19) Ahmet yakışıklı ol-duğ-u *için* seç-il-me-di-Ø.
    Ahmet handsome be-DIK-3Sg because choose-Pass-Neg-Pst-3Sg
    ‘Ahmet was not chosen because he was handsome.’

This sentence in (19) is ambiguous, and can mean either of the following:

(i) the reason for why he was not chosen is because he was handsome (causative outside the scope of negation)
(ii) the reason for why he was chosen is not because he was handsome (causative inside the scope of negation)

If the *ki*-clause is indeed not a subordinate clause, as is claimed here, it should not allow for ambiguity when it is a causative clause, since the *ki*-clause could not be within the scope of the negative element in the matrix clause. This prediction, too, is borne out.

(20) Ahmet seç-**il**-me-di-Ø ***çünkü*** yakışıklı-y-dı-Ø.
    Ahmet choose-Pass-*Neg*-Pst-3Sg **because** handsome-Cop-Pst-3Sg
    ‘Ahmet wasn’t chosen because he was handsome.’

In (20), where the causative clause, marked by the word ***çünkü*** ‘because’, which is morphologically related to *ki* (see Kornfilt 1997, p. 13), only allows for an interpretation in which the causative clause is outside the scope of negation, that is, the interpretation in (i) (see de Haan 2001, for relevant data in Frisian).

2.8 Quantification

Another piece of evidence that shows that *ki*-clauses are not subordinated clauses comes from quantification. As (21) shows, the quantifier in the matrix clause cannot bind the pronoun inside the *ki*-clause. The singular pronoun in the *ki*-clause, as will be shown later on, is not c-commanded by the quantifier in the matrix clause.\(^{10}\)

(21) *Herkes, dedi *ki [**Ø** / **i**] cevab-1 bil-mi-yor-du-∅.
    Everyone, said ki [s/he/pro, answer-Acc know-Prog-Pst-3Sg]
    Intended: ‘Everyone said that he, did not know the answer.’

2.9 *Ki*-clauses as appositives

*Ki*-clauses can occur as appositive relative clauses (Göksel and Kerslake 2005, p. 102):

(22) Bugün hava açarsa, [*ki açacağıni pek sanmiyorum*], bahçede mangal yakacaklar-miş.
    ‘If the weather brightens up today, [which I don’t think it really will], apparently they’re going to have a barbecue in the garden.’

\(^{10}\)Note that no such restrictions are observed with the nominalized subordinated clauses:

(i) Herkes, [Ø, cevab-1 bil-me-diği-in ]-i söyle-di-∅.
    Everyone, [pro, answer-Acc know-Neg-DIK-3SgN ]-Acc say-Pst-3Sg
    ‘Everyone, said that he, did not know the answer.’

An overt pronoun in the embedded clause would not be interpreted as a bound pronoun, but this is due to the Overt Pronoun Constraint (Montalbetti 1984):

(ii) Ahmet, [o-nun, / Ø, cevab-1 bil-me-diği-in ]-i söyle-di-∅.
    Ahmet [he-Gen/ pro answer-Acc know-Neg-DIK-3SgN ]-Acc say-Pst-3Sg
    ‘Ahmet said that he didn’t know the answer.’
Appositive relatives have been shown to behave like coordinated root clauses (Ross 1967; Emonds 1979, among many others). The occurrence of *ki*-clauses as appositives confirms that they have main/root clause properties and that *ki* is not a subordination strategy.\(^{11,12}\)

2.10 Conclusion: Properties of *ki*-clauses

The subordination analysis of *ki*-clauses cannot be maintained. Furthermore, *ki*-clauses are independent expressions with assertoric illocutionary force (Table 1).

<table>
<thead>
<tr>
<th>Properties of Non-subordination</th>
<th>Turkish <em>ki</em>-clauses</th>
</tr>
</thead>
<tbody>
<tr>
<td>No binding from outside</td>
<td>✓</td>
</tr>
<tr>
<td>No extraction from the clause</td>
<td>✓</td>
</tr>
<tr>
<td>Outside the scope of negation</td>
<td>✓</td>
</tr>
<tr>
<td>Incompatibility with focusing particles</td>
<td>✓</td>
</tr>
<tr>
<td>Occurrence as appositives</td>
<td>✓</td>
</tr>
<tr>
<td>Occurrence as unintegrated result clauses</td>
<td>✓</td>
</tr>
<tr>
<td>No NPI-licensing (in the rare cases where negation is allowed)</td>
<td>✓</td>
</tr>
<tr>
<td>Expressions with independent illocutionary force</td>
<td>✓</td>
</tr>
</tbody>
</table>

Table 1: Properties of *ki*-clauses indicating non-surbordination

3 Parataxis vs. Normal Coordination

Now that it has been established that *ki*-clauses are not subordinate clauses, it remains to be determined what *ki*-clauses are. There are two options. Either *ki*-clauses are part of a standard coordination construction, or they are paratactically connected to their matrix clauses. Each of these options make certain predictions regarding *ordering* and *iteration*.

3.1 Ordering Restrictions

Given that conjuncts in a standard coordination construction are syntactically parallel, it should be possible to reverse the order of the two conjuncts. This, however, does not hold for paratactic constructions, which are linked to their matrix clause, and where such linking enforces restrictions on the ordering (de Haan 2001, p. 27).

\(^{11}\)While a common view is that *ki*-clauses can also occur as restrictive relative clauses, a closer look reveals that this happens only when the head noun is a (cardinal) indefinite. See the discussion in Hopper and Thompson (1973) for why restrictive relative clauses with indefinite head nouns are assertions.

\(^{12}\)Another type of construction in which *ki*-clauses behave like coordinated rather than subordinated structures are result clauses with the degree adverb ‘so’ (or ‘such’). See Hoeksema and Napoli (1993) for a distinction between *Para(tactic)* so-sentences and *Sub(ordinate)* so-sentences for English.
3.2 Limited Iteration

Another difference between *ki and a conjunction such as English *and is that *and does not impose any categorial requirements on its conjuncts. *Ki, on the other hand, can only conjoin sentences.

Like Persian, Hindi also uses the *C^0 element *ki. Dwivedi (1994) suggested that because *ki is of category *C^0, under the law of coordination it can only conjoin with another *CP. In other words, since the category of *ki is *C^0, it projects a *CP, and requires a *CP conjunct (Figure 1).

\[ \text{Figure 1: Dwivedi’s (1994) proposal for Hindi *ki} \]

Dwivedi further states that under an analysis where *ki is a connector with those categorial features, the following facts noted in Srivastav (1991) may be accounted for:

(25) *usNE kahaa *ki Anu aayii aur *ki Ravii gayaa.
    she-E said that Anu came and that Ravi left
    ‘She said that Anu came and that Ravi left.’

\[ ^{13} \text{Based on examples such as (24a), Lewis (2001) suggests that *ki is purely a conjunction.} \]
Turkish *ki* exhibits the same restriction as Hindi *ki* in this respect.\(^{14}\) There can be no two *ki*-clauses per matrix predicate, nor can two *ki*-clauses be conjoined by ‘and’:

(26) *Duydum [ *ki* [ Ayşe Istanbul-\(a\) gitmiş ]] (ve) [ *ki* [ Ahmet Izmir-e uçmuş]].

*The same restriction is observed in Frisian embedded root constructions that are headed by the complementizer *dat* (ECV2):*

(27) *Pyt hie in boadskip stjoerd [ *dat* hja sille truouwe ] [ *dat* hja sille in hus buy Pyt had a message sent they will marry they will a house keepje].

According to de Haan (2001), this restriction in Frisian follows from the fact that such constructions have to be linked to their matrix clause.\(^{15}\) Along the lines of Dwivedi (1994) and de Haan (2001), it is argued here that the reason why Turkish *ki*-clauses exhibit limited iteration is that Turkish *ki* is a connector of category C\(^0\), and can only be adjoined to another CP (Figure 2). Crucially, it is not the syntax that constraints this distribution of

\(^{14}\)It should be noted, however, that Turkish *ki* and Hindi *ki* are in many ways fundamentally different from one another. For example, Hindi *ki* can be selected by true factive predicates, indicating that it does not have an assertive character.

(i) Sudha-Ko afsos nahiIN hua *ki* koii aayaa.

*Sudha didn’t regret that someone came.’ (Hindi, Dwivedi 1994)

Data from extraction also shows how Turkish *ki*-clauses are different from Hindi *ki*-clauses. Dwivedi (1994) states that *ki*-clauses in Hindi, which are asymmetric coordinate structures, are not subject to the Coordinate Structure Constraint, and Across the Board movement (ATB) is not obligatory (although it is expected to be grammatical):

(ii) KisKO SalimNE ei bataayaa *ki* Rima ei pyaar kartii hai?

*Who did Salim tell that Rima loves?’ (Hindi, Dwivedi 1994)

In Turkish, extraction from either the matrix or the *ki*-clause is ruled out due to the assertive character of *ki*, as was discussed at length in section 2. Not surprisingly, ATB movement is also not possible:

(iii) *Ahmet kim-ei de-di-Ø *ki* Selim ei kitab-1 ver-di-Ø?

*Who did Ahmet say that Selim gave a book to?’

\(^{15}\)Here is the relevant quote from de Haan (2001, p. 31):

There are restrictions having to do with the fact that these constructions have to be linked to their matrix clause. It is not possible to link more than one ECV2 of a particular type to a matrix clause, for the very reason that a verb can have only one complement, a noun only one content clause, a degree phrase only one result clause, and a predicate only one causative modifier[.]
*ki*; the constraint follows independently from the semantics/pragmatics of *ki*-clauses. As was illustrated above for Turkish, *ki*-clauses have an independent assertoric illocutionary force, and as such *ki* has the function of conjoining two independent speech acts.

It has been shown that Turkish *ki* is neither a subordinator nor a standard coordinator. The properties of *ki* can be accounted for by assuming an analysis of parataxis. Table 2 shows a list of the major properties of parataxis provided by de Haan (2001) for clauses that have a complementizer yet exhibit V2 properties in Frisian (ECV2). As demonstrated in the sections above, Turkish *ki*-clauses exhibit all these properties.\(^{16}\)

<table>
<thead>
<tr>
<th>de Haan’s (2001) Major Properties of paratactic ECV2s</th>
<th>Turkish <em>ki</em></th>
</tr>
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<tbody>
<tr>
<td>general display of root phenomena</td>
<td>yes</td>
</tr>
<tr>
<td>obligatory occurrence outside and to the right of the matrix clause (cannot undergo topicalization nor be part of other preposings)</td>
<td>yes</td>
</tr>
<tr>
<td>no binding from outside ECV2s</td>
<td>yes</td>
</tr>
<tr>
<td>intonation unit</td>
<td>yes</td>
</tr>
<tr>
<td>independent focus domain</td>
<td>yes</td>
</tr>
<tr>
<td>(limited) iteration (matrix clause has to be a structural root)</td>
<td>yes</td>
</tr>
<tr>
<td>no extraction</td>
<td>yes</td>
</tr>
</tbody>
</table>

Table 2: Major properties of parataxis

The next section provides a paratactic account of Turkish *ki*-clauses.

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\(^{16}\)Just like the Frisian ECV2 and its matrix clause, the Turkish *ki*-clause and its related matrix clause form two separate intonational units, which is indicated by a clear intonational break that occurs between the constituent clauses. (The distinctive intonational break in Turkish *ki*-clauses occurs before *ki* in relative and causative clauses, and after *ki* in all other constructions.) These units have their own focus domain; that is, each clause has at least one focus constituent, which is not a necessary property of integrated clause. See de Haan (2001) for the Frisian data.
4 Analysis of ki-clauses

So far, it has been shown that ki-clauses exhibit root clause properties, and that, as such, they have their own illocutionary force, which is that of assertion. Furthermore, evidence has been provided that ki can be analyzed neither as a subordinator, nor as a standard coordinator. Instead, ki-clauses are paratactic clauses with ki functioning as a coordinator with categorial features.

Because ki-clauses are subject to selectional requirements due to their assertoric nature, it is important to have a means to capture the link that a ki-root CP has with a position inside the matrix clause. Furthermore, the matrix verb that takes a ki-clause has to have an object. In order to capture this relationship here, Torrego and Uriagereka’s (2002) derivational analysis for Spanish como-clauses, which they analyze as paratactic clauses, is adopted. Torrego and Uriagereka (2002) state that como, as opposed to the hypotactic que, has a far more restricted distribution: clauses that are introduced by como cannot be subjects (28), topics, or left-dislocated constituents. Several classes of verbs, such as volitionals, factives, and causatives cannot occur with como-clauses either, and overt wh-movement is not allowed. Furthermore, como-clauses do not allow for variable binding.

(28) Verás/te darás cuenta como tu madre ilevaba razón.
   ‘You will see how your mother was right.’

Torrego and Uriagereka (2002) argue that the structure of the como-clause shown in (28) is similar to that of the ‘truth’ clause in (29):

(29) ‘You will realize/see the truth of your mother being right.’

However, for Torrego and Uriagereka (2002), an important difference between the clausal dependents of como and those of nominals such as la verdad ‘the truth’ is that in the latter case the dependent clause is associated with the genitive marker de, whereas in the case of como no such association exists:

(30) a. ...la verdad *(de) que la tierra es redonda
    ...the truth (of) that the Earth is round
 b. ...como *(de) la tierra es redonda
    ...how (of) the Earth is round

This structural difference, according to Torrego and Uriagereka (2002), is very much like the one illustrated in (31):

(31) a. ...the sister *(of) John’s
 b. ...John’s *(of) sister

Because John’s is lower in (31a) than it is in (31b), assuming the Kayne-Szabolcsi analysis, Torrego and Uriagereka (2002) conclude that the dependent clause in (30b) is also higher than the one in (30a). Therefore, they postulate a strong feature in structures

with *como*, but not for structures with *la verdad*. In other words, the idea is that whereas the D element which is hypothesized for *como* structures selects for a functional category with a strong feature, the same is not the case for the D heading other structures. This proposal led Torrego and Uriagereka (2002) to make the assumption that the strong feature of the functional category hypothesized for *como* is also a licenser for a null *pro*.

Following Lebeaux (1988), they suggest that a generalized transformation causes paratactic dependencies: in the initial phrase, *pro*-clause occupies the place which is otherwise taken by an entire clause. It is this item that enters into the syntactic derivation (engages in checking just as any other syntactic formative would). However, at LF, there are two options, namely either the *pro* remains as such, or else a separate sentence (a separate text) substitutes into the *pro*-clause (Figure 3).

![Derivational analysis of paratactic *como*-clauses (Torrego and Uriagereka 2002)](image)

Based on the parallelism with *como*-clauses in Spanish, Yoon (2011) assumes a syntactic derivation involving root transformation for subjunctive and evaluative negation (EN) constructions in Korean. She states that such an analysis would account for why a structural case cannot attach to subjunctive complements, EN-complements, and non-EN-complements: the matrix verb in a paratactic construction takes a *pro* complement to which it assigns ACC, hence no ACC can be assigned to the clause. Adopting Torrego and Uriagereka’s (2002) derivational analysis of parataxis, Yoon (2011) assumes the structure provided in Figure 4 for Korean paratactic Evaluative Negation complements.

To account for the link that a *ki*-clause has with a position inside the matrix clause, as well as the fact that the matrix verb that takes a *ki*-clause has to have an object, I adapt

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18In other words, dependent clauses introduced by *como* may have a null *pro*-like expression, licensed in the discourse just like other null pronomininals (Torrego and Uriagereka 2002, p. 259).

19Yoon (2011) states that the reason why the paratactic structure does not follow the ‘no tangling’ principle is due to the word order in Korean. She suggests that the given structure is to some extent in line with approaches assuming multidominance and subject to a condition in Korean that requires that the paratactic CPs be linearized adjacent to the *pro* to which they are linked.
The proposed analysis of *ki*-clauses has the following specifics:

(i) The *ki*-clause is associated with a *pro*-element, a sister to the assertive predicate, which enters into the syntactic derivation and engages in checking just like any other syntactic element.

(ii) The *ki*-clause is neither an instance of a subordinated nor of a standardly coordinated constituent. Instead, it is paratactically connected to its matrix clause, where *ki* is a connector of category C₀, able to conjoin only with another CP.

(iii) The *ki*-clause has its independent assertoric illocutionary force, which explains the following further properties:

   [a] Taken together with (ii), this amounts to *ki* having the function of conjoining two independent speech acts;

   [b] The *ki*-clause has semantically/pragmatically-driven selectional restrictions on the matrix predicate.

(iv) This analysis of the *ki*-clause accounts for...

   [a] the impossibility of negating and questioning the *ki*-clause due to the independent assertoric illocutionary force that it has. The independent assertoric illocutionary force of the *ki*-clause also accounts for the clause’s incompatibility with presupposition triggers and its inability to occur in topic/subject positions.
4 ANALYSIS OF KI-CLAUSES

Figure 5: Proposed structure for Turkish ki-clauses

[b] the fact that the causative ki-clause is outside the scope of a negative phrase in the matrix clause; see the example in (33) and Figure 6.

c] why quantifiers cannot bind the pronoun inside the ki-clause as the necessary c-command relation is not obtained; see the example in (34) and Figure 7. Next, the absence of the c-command relationship between the ki-clause and its matrix clause also accounts for why focusing particles in the matrix clause cannot select for a ki-clause that hosts the focused constituent; see the example in (35) and Figure 8. Finally, the same explanation holds for why NPIs within the ki-clause lead to ungrammaticality; see the example in (36) and Figure 9.

d] why ki-clauses may occur as appositives, which have been shown to behave like coordinated root clauses.

e] the ordering restriction imposed on ki-clauses and their inability to reiterate.

(33) Ahmet seç-il-me-di-Ø criançası yakışıklı-y-di-Ø.  
Ahmet choose-Pass-Neg-Pst-3Sg because handsome-Cop-Pst-3Sg  
‘Ahmet wasn’t chosen because he was handsome.’

(34) *Herkes, dedi ki [o/Ø, ci evab-i bil-mi-yor-du-Ø].  
Everyone, said ki [s/he/pro, answer-Acc know-Prog-Pst-3Sg]  
Intended: ‘Everyone, said that he, did not know the answer.’

(35) *Ahmet sadece anla-di-Ø ki Ali davet et-il-di-Ø.  
Ahmet only realize-Pst-3Sg ki Ali resign do-Pass-Pst-3Sg  
Intended: ‘Ahmet only realized that Ali was invited.’
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Figure 6: Causative ki-clauses

Figure 7: Quantifier binding and ki-clauses
5 Conclusions

As mentioned in previous sections, the general view in the literature is that *ki* is a subordinator (Kornfilt 1997: 2005; Göksel and Kerslake 2005). Moreover, *ki*-clauses are assumed to be analogous to an Indo-European style of complementation (Kornfilt 1997: 2005; Göksel and Kerslake 2005) due to the fact that *ki* was borrowed from Persian.20 As further suggested by Kornfilt (2005), *ki*-clauses in Turkish are not adjoined to clauses, but are rather base-generated in their surface position.21 Based on the discussion in previous sections, the subordination analysis can be safely rejected. Moreover, evidence has been provided that neither a standard coordination

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20 According to Göksel and Kerslake (2005, p. 409), a *ki*-clause ‘has the effect of highlighting the main predicate, thus drawing attention to the status of what is about to be uttered: an obvious fact, a surmise on the part of the speaker, a desire, etc.’. Göksel and Kerslake (2005, p. 409) further state that *ki*-structures are also used by speakers ‘as an organizational device to gain time for articulating the substantive content of their communication’. Note that Göksel and Kerslake’s (2005) informal description of *ki*-clauses is consistent with the view that *ki*-clauses are independent expressions with an assertoric illocutionary force.

21 Kornfilt (2005) argues that because the CPs are head-initial, the VPs that they are attached to should be head-initial, too. Given the direct complement status of the CPs, they would be the sisters of the verb.
analysis is tenable. Instead, the account proposed here treats *ki*-clauses as paratactically connected to their matrix clauses, where the role of the so-called complementizer *ki* is to conjoin two independent speech acts. In particular, *ki* is shown to be a morphological marker of assertion, where the embedded root clauses introduced by *ki* are expressions that have an illocutionary force of their own. This analysis of *ki* not only accounts for the otherwise peculiar and unexplained properties of *ki*-clauses, but also demonstrates why this particular set of properties is not simply an accidental result of foreign origin.

In fact, the observed set of properties of the Turkish *ki*-clause is not an isolated phenomenon cross-linguistically. Many of the properties of Turkish *ki*-clauses can be observed as clusters in languages as diverse as Frisian (embedded V2 clauses with a complementizer; de Haan 2001) and Korean (embedded root clause; Yoon 2011).

References


REFERENCES


