LING 508—Syntactic Theory
On the Epistemology
of Relative Clause Constructions in Kazakh

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1 Background

Relative clauses (RCs) in Turkic languages have been the topic of a certain amount of linguistic literature in recent years. While much of this has been specifically about Turkish, some attention has been paid to other Turkic languages, including Kazakh. However, while there is controversy about how to analyse Turkish RCs, there is very little literature which even presents accurate descriptive generalisations about Kazakh RCs.

This paper attempts to present a clear and complete syntactic description of Kazakh RCs and determine how best to analyse them. Past analyses are presented as a starting place for thinking critically about what sort of analysis works best. This paper is probably best seen as a launching point for further research, as the conclusions it draws are mostly speculative.

2 Properties of Kazakh RCs

The most common way to relativise a clause in Kazakh is by relativising the verb with what I'll tentatively call "gerundive" morphology.[1] There are five morphemes that can be used in this way, of which one is almost non-existant outside of literary usage (*-MIs*) and one cannot be used in "complement" clauses (*-(A)r*)—which are discussed later—and might better be called participial morphology. The other three morphemes (*-GAn, -EtIn, -Iw(şI)*) behave more or less in the same way; this paper deals almost exclusively with relative clauses formed using *-GAn*, but it can be assumed that *-EtIn* and *-Iw(şI)* behave the same way.[2]

Karabulut (2003, 192-202) draws a distinction between **subject relative clauses**—whose head is the semantic subject of the RC, as in (1)—and **object relative clauses**—whose head is the semantic direct object of the RC, as in (2).

(1)   [*kitap*   *oqı–ğan*] *adam*   (2)   [*adam*   *oqı–ğan*] *kitap*
       [book(ACC) read–GER] man   [man(NOM) read–GER] book
       "*the man [that read a book]*"   "*a book [that a man read]*"

Since these two structures are often superficially identical in Kazakh, the interpretation can be ambiguous (3).

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[1] This is referred to as participial morphology by Karabulut (2003); however, Kazakh has distinct participial morphology (called adverbial morphology by Karabulut (2003)). My decision to call this gerundive morphology is at best controversial for most uses of it; however, since its behaviour very much mirrors that of English *-ing*, its use in complement clauses probably is best considered gerundive. I will continue to call the morphology gerundive, although most uses I discuss in depth are probably best characterised as participial.

[2] *-Iw(şI)* appears to take the form *-Iw* in complement clauses and *-IwşI* in other relative clauses.

(3)　[*mısıq kör–gen*] *adam*
　　[cat　　see–GER　] man
　　subject: "*the man [that saw the cat]*"
　　object: "*the man [that the cat saw]*"

One way in which subject and object RCs may differ, however, is that object RCs may take a genitive subject—which is paired with possessive (possessed) morphology on the head noun—and subject RCs may not; hence, the sentence in (4) has only one interpretation.

(4)　[*mısıq–tıŋ kör–gen*] *adam–ı*
　　[cat–GEN　　see–GER　] man–POSS
　　object: "*the man [that the cat saw]*"

There are other types of RCs beyond subject and object, however, such as locative (5)—where the head noun has a semantic role of location relative to the relativised verb—and temporal (6). These types of relative clauses behave like object RCs in that they may take a genitive subject.

(5)　[*adam kitap–tı　　oqı–gan*] *jer*
　　[man　book–ACC.DEF read–GER] land
　　"*the place [?that / where / **at which** the man read the book]*"

(6)　[*adam kitap–tı　　oqı–gan*] *kez*
　　[man　book–ACC.DEF read–GER] time
　　"*the time [?that / when / **during which** the man read the book]*"

Aygen (2005, 6) points out yet another form of relative clause in Kazakh, which she calls "complement clauses." These can be arguments to a large number of verbs (7, 8) and adjectives (9). They're formed the same as other types of relative clauses except that

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they take nominal morphology, like possessive morphology and case—e.g., accusative (8) and dative (7).

(7) [*adam–nıŋ kitap–tı   oqı–ğan–ı–na   ] *sene–y–min*
     [man–GEN   book–ACC.DEF read–GER–POSS–DAT] believe–PRES–1st_SG
     "*I believe* [*that the man read the book*]."

(8) [*adam–nıŋ kitap–tı   oqı–ğan–ı–n   ] *bil–e–min*
     [man–GEN   book–ACC.DEF read–GER–POSS–ACC] know–PRES–1st_SG
     "*I know* [*that the man read the book*]."

(9) [*adam–nıŋ kitap–tı   oqı–ğan–ı–na   ] *quwanış–tı–mın*
     [man–GEN   book–ACC.DEF read–GER–POSS–DAT] joy–ADJ–COP.1st_SG
     "*I'm glad* [*that the man read the book*]."

It should be pointed out that other occurrences of relative clauses with no head noun also take nominal morphology, including number and case (10). This is probably best seen as relativisation to an empty head.

(10) [*şay iş–ken–der–di   ] *kör–di–m*
     [tea drink–GER–PL–ACC.DEF] see–PAST–1st_SG
     "*I saw* [*the ones who drank tea*]."

There are a couple other types of relative clauses in Kazakh which aren't examined by any of the literature, and which I won't attempt to analyse here, but are worth pointing out for the sake of comprehensivity. These include relativised possessive phrases (11), relativised existential phrases (12), and probably a few other types that I'm not familiar with.[3]

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[3]Quotatives in Kazakh look like they might employ a complementiser, but I won't attempt to discuss that here.

(11) [*şaş–ı*   *qara*] *adam*
     [hair-POSS black] man

     "*the man [whose hair is black]*" / "*the man [with black hair]*"

(12) [*iyt–i*   *bar*   / *joq*   ] *adam*
     [dog-POSS exists / doesn't.exist] man

     "*the man [with / without a dog].*"

It's likely that the latter type could be seen as similar to the above-mentioned locative and temporal RCs, since the head noun is usually the possessor (or not) of what exists (or doesn't exist); possession is normally expressed by a possessor in genitive or locative case, with an existential copula.

3   Analyses

3.1   What an analysis should account for

There are many ways in which the Kazakh construction in question resembles and differs from English *-ing* phrases, which are considered reduced relatives. Considering that these constructions share a similar function and similar properties, the proposition that they also share the same sort of structure shouldn't be unreasonable. A good analysis of them should be able to provide implications for the universal typology of such phrases, and should also be able to account for the similarities and differences between them. As such, a summary of these similarities and differences follows.

3.1.1 Similarities

One common feature shared by Kazakh relative clauses and English *-ing* phrases is that the internal structure is like that of a VP, but the external structure is like that of an NP (or a DP). This is noted often of gerunds in English in the literature on them. English *-ing* phrases and Kazakh RCs may also both be restrictive; e.g. (13).

(13) "*I saw the man [having read the book].*"

There are several other properties these constructions share which I'm less hesitant to point out, since attribution of them to similar structure is speculative. For example, the internal subject may vary between default case (object case in English and subject case in Kazakh) and genitive case in both languages. Also, the relativised verb forms can be used with copulas in both languages produce certain verb tenses—i.e., in English *be + V-ing* is used for progressive, and in Kazakh *V-GAn + COP* is used for past perfect evidential. On the same note, both English and Kazakh have multiple forms which can be used as this sort of relative clause, but in both languages there's an asymmetry with the tense/aspect system. That is, Kazakh has the five forms for RCs—*-EtIn* (14a), *-GAn* (14b), *-(A)r* (14c), *-Iw(şI)*, *-MIs*—but has many more classes of tense/aspect/evidentuality combinations; at the same time, English just has two RC forms—*-ing* (15a) and (15b).

(14) a. **alatın kitap**
         the book which will be / is being taken

      b. **alğan kitap**
         book which has been / was being taken

     c. ***alar kitap***
        book for taking

(15)   a. *man [reading the book]*

       b. *book [read by the man]*

3.1.2   Differencees

While English *-ing* phrases may be restrictive, Kazakh RCs are unable to be non-restrictive, as shown in (16). Non-restrictive appositive relatives are often believed to have a different structure than restrictive relatives (de Vries, 2002, 415-416).

(16)   **[*kitap oqı–ğan*] *adam üy–ge   ket–ti***
      [book read–GER] man   home–DAT leave–PAST
      restrictive: "*The man who/having read the book left for home.*"
      *non-restrictive: "*The man, who/having read the book, left for home.*"

Also, English *-ing* phrases are much more restricted in their use. For instance, certain complex verb constructions don't relativise well with *-ing* in English (17); I'll assume that the restrictive reading of this—which is difficult to coërce—is the only valid RC reading. This restriction in English contrasts with Kazakh, where anything goes as long as the head verb is relativised, as can be seen in the grammaticality of sentences like (18), with 5 verbs. The grammaticality of the second given translation of this sentence into English may be partly due to the fact that "*getting ready to*" requires a volition from the subject.

(17)   a.   "*I saw the man [reading the book].*"

       b. ??"*I saw the man [being able to read the book].*"

       c. ??"*I saw the man [having read the book].*"

(18) [*meniŋ*   *je–p*   *qoy–a*   *jazda–p*   *kel–e*   *jat–qan*]
[1st_SG.GEN eat–PART PERF–PART PROSP–PART INGRESS–PART PROG–GER]
tüye–m
camel–POSS.1st_SG
"*the camel* [*that I'm getting ready to be about to gobble up*]"
(??"*the camel* [*getting ready to be about to be gobbled up by me*]")

Another limitation of English *-ing* phrases is their inability to express non-passive

object forms (19). Interestingly, this limitation exists for *-(y)An* phrases in Turkish (the

morphological equivalent of Kazakh *-GAn*) and *qui* phrases in French[4], but not *-GAn* phrases

in Kazakh.

(19)   a.   "*I saw the book* [*that the man read*]."

       b.   * "*I saw the book* [*reading the man*]."

       c.   "*I saw the* (*[*reading*]) *book* (*[*reading*]).

Despite the the fact that the passive morphology is optional in Kazakh, a limitation

on relativised passives exists. Compare (20a), where use of passive morphology is optional

in Kazakh and the English equivalent using *-en* phrase is grammatical, with (20b), where

use of passive morphology is ungrammatical in Kazakh because non-passive subjects cannot

appear in passive VPs (cf. in English, they appear as the object of *by*). As can be seen,

Kazakh is able to express non-passive object forms, as in (20a), and the restrictions dealing

with relativised passives are due to general limitations on Kazakh passives.

(20)   a. [*adam–ğa jaz–(ıl)–ğan*   ] *xat–tı*   *kör–di–m*
          [man–DAT   write–(PASS)–GER] letter–ACC see–PAST–1st_SG
          "*I saw the letter* [*written to the man*]".

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[4]The parallel between Turkish *-(y)An DIK* and French *qui que* is drawn by Kornfilt (2000, 156)

b. [*adam jaz–(*ıl)–ğan*] *xat–tı kör–di–m*
[man write–(*PASS)–GER] letter–ACC see–PAST–1st_SG
"*I saw the letter [written by the man] / *[written the man]*".

Various forms of "argumentless" RCs in English also appear to be ungrammatical in various configurations, as in (21-22). In some of these configurations (21b, 22b), a restrictive reading is difficult to coërce.

(21) a. "*I saw the book [that was read by the man].*"

   b. ? "*I saw the book [read by the man].*"

   c. "*I saw the ([read]) book (#[read]).*"

(22) a. "*I saw the man [who was reading the book].*"

   b. "*I saw the man [reading the book].*"

   c. "*I saw the (??[reading]) man (#[reading]).*"

Kornfilt (2000, 124-125) gives more examples of forms which are ungrammatical in English (23a-23d) but would be grammatical in Turkish (and Kazakh); however, sentences like (23c) and (23d) are grammatical in English when the order of the head and the RC is reversed (24). I will assume that the difference in order is due to the fact that English is primarily left-headed, while Turkic languages are primarily right-headed, and will consider this unproblematic.

(23) a. * "*my/I having seen/seeing (on the island) people*"

   b. * "*Mary's probably not being able to love person*"

   c. * "*a probably not being able to love Mary person*"

   d. * "*a by his mother loved child*"

(24) a. "*a person probably not being able to love Mary*"

   b. "*a child loved by his mother*"

3.2 Karabulut (2003)

Karabulut (2003) presents a fairly simple syntactic analysis of Kazakh relative clauses. The simplicity is attractive in some ways, but it also presents some problems. Examples (25) and (26) depict his analysis for subject and object RCs, respectively.

(25) [*Men*/**pro** t$_i$ *üy–ge   bar–ğan*]
     [I/*pro*   t$_i$ home–DAT go–GER   ]
     qız$_i$–dı kör–di–m
     girl$_i$–ACC see–PAST–1st_SG

     "I saw the girl who went home."

(26) [*Men*/**pro** *sen* t$_i$ *jaz–ğan*]
     [I/*pro*   you t$_i$ write–GEN]
     xat$_i$–tı   oqı–dı–m
     letter$_i$–ACC read–PAST–1st_SG

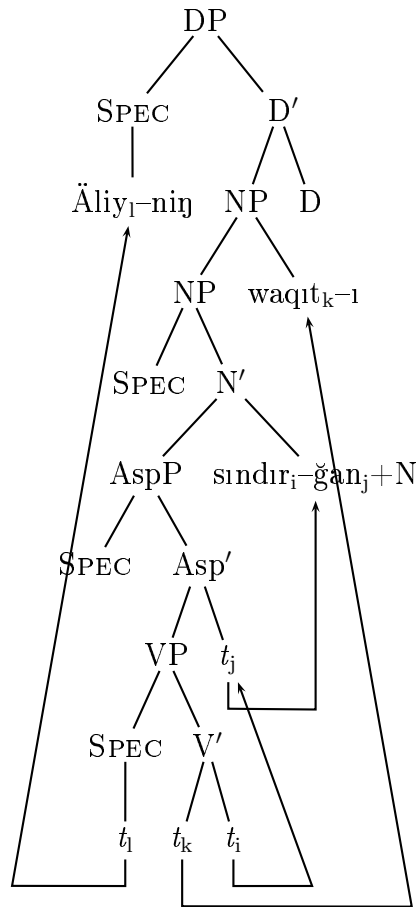   *"I read the letter you wrote."*
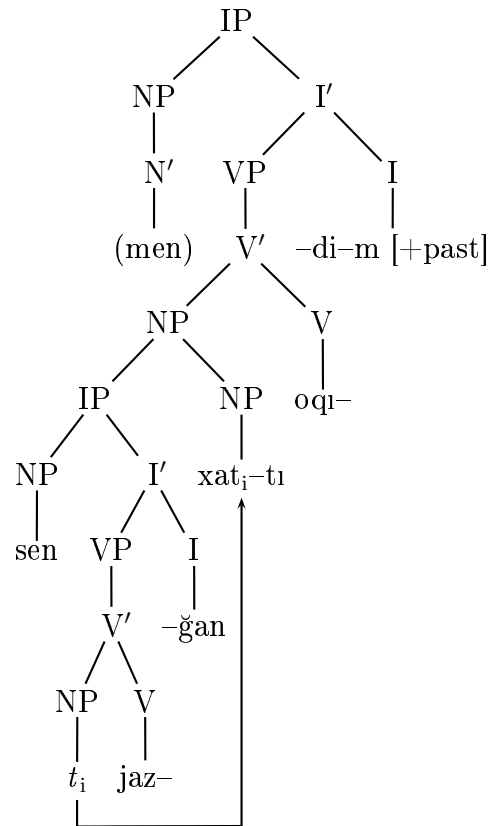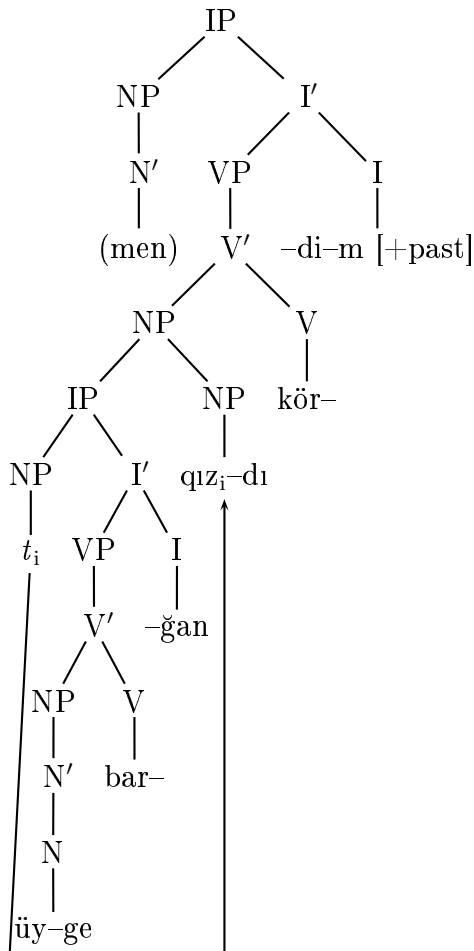
Some advantages to this analysis are that it accounts for the semantic correspondence of the head noun to the various verbal arguments by simple NP movement and that subject (25) and object (26) relative clauses have the same structure. On the other hand, there are several inadequacies: there's rightward movement, which is strongly dispreferred by many syntactic frameworks; there's no apparent motivation for the movement; IP and NP sisters, which is generally okay, but it's not ideal in GB to create new phrase combinations; there's no CP or other obvious relativising syntax; and the external nominal properties of the IP are accounted for just by making it the daughter of an NP.

3.3   Aygen (2005)

Aygen (2005) presents a different account, which attempts to ground itself more solidly in various principles of syntactic theory. Her analysis is depicted by examples (27) and (28).

(27) [*Äliy–niŋ äynek–ti   sındır–ğan*] *waqıt–ı*
      [Ali–GEN   glass–ACC.DEF break–GEN   ] time–POSS

      "*the time* [*that Ali broke the glass*]"

DP
├── SPEC
│   └── Äliy_l–niŋ
└── D′
    ├── NP
    │   ├── NP
    │   │   ├── SPEC
    │   │   └── N′
    │   │   ├── AspP
    │   │   │   ├── SPEC
    │   │   │   └── Asp′
    │   │   │   ├── VP
    │   │   │   │   ├── SPEC
    │   │   │   │   └── V′
    │   │   │   │   ├── t_k
    │   │   │   │   └── t_i
    │   │   │   └── t_j
    │   │   └── sındır_i–ğan_j+N
    │   └── waqıt_k–ı
    └── D

(with traces: t_l in SPEC of VP)

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(28)   [**sen jaz–ǧan**] **qat**
      [you write–GER] letter

    "*the letter* [*that you wrote*]."
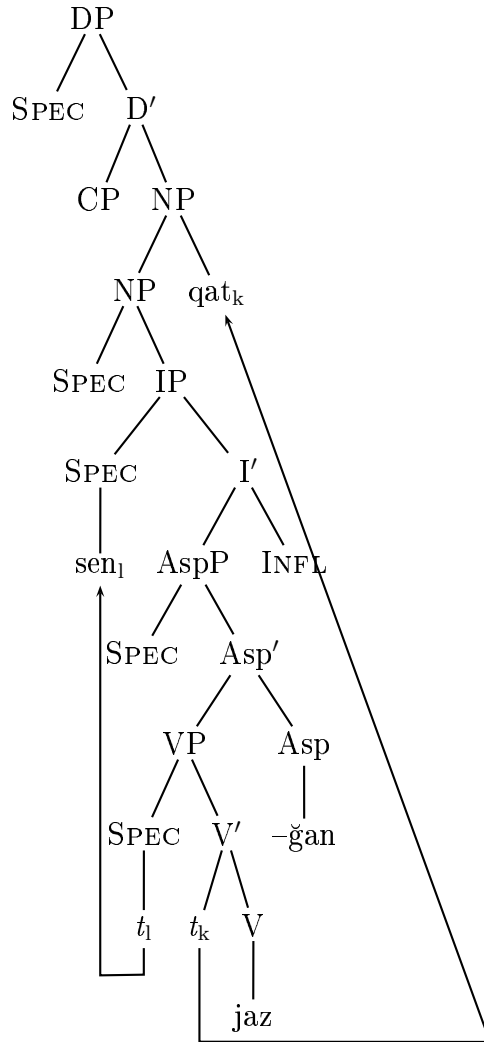
This analysis has several obvious advantages over Karabulut (2003)'s. It's more grounded in modern theories of syntax, with minimalism-like cyclic movement, and a split IP. Furthermore, the optional genitive morphology on internal subjects is explained (licensed by D), as well as the possessive morphology on the head noun (government by SPEC,DP). Unfortunately, the analysis requires positing two different structures—one for RCs without subjects

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(27) and one for RCs with (28). Like Karabulut (2003), it also posits rightward movement. Additionally, it posits an empty CP, which seems like a kludge—and unnecessary—and the analysis fails to account for the placement of additional modifiers of the head noun, like adjectives.[5]

3.4 Towards something better

In considering the possibilities for an analysis of RCs in Kazakh, there are several things which can be taken from analyses available in the literature.

To begin with, several things seem right about a DP analysis—it accounts for the internal verbiness and external nouniness of Kazakh *-GAn* phrases (parallel to English *-ing* gerunds), and it's capable of explaining the morphological peculiarities (such as the genitive subject in Aygen (2005)'s account). If a DP analysis is accepted, it might be possible to explain the various differences between Kazakh RCs and English *-ing* phrases by appealing to other differences between the languages—such as was mentioned concerning headedness in section 3.1.2.

If possible, there should be one analysis to account for all related behaviour, or if there are differences in analysis, they should be motivated. Also, to reconcile an analysis with the apparent lack of rightward movement corss-linguistically, an analysis involving rightward movement should be avoided. Two logical possibilities result—either there's complex cyclic

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[5]Numbers, adjectives, etc., all intervene between the RC and the head noun in Kazakh; Aygen (2005)'s analysis might be modified to support this by using a split DP.

movement of everything else to the left, or the head is base-generate in place. Assuming the latter analysis (seeing as the former is highly unlikely), and assuming that the structure would allow for coïndexation, something needs to account for the lack of a correspondent to head within the RC. The possibility of an empty element that isn't a trace avails itself, but then the only real option is *pro*, since PRO would be impossible due to government. Unfortunately, it would be grammatical for this empty element to alternate with an overt NP of any sort. Perhaps, then, it could be said that resumptive empty elements in Kazakh must remain covert.

One further option which should be considered is a matching account, where an empty operator moves from within the RC to the position of a relativiser (SPEC,CP). This is the analysis argued for Turkish by Kornfilt (2000), which she bases on the violability of subjacency by Turkish CPs (29),[6] much as in English, which differs, however, in that it has overt realisations of OP. Unfortunately, I have no intuitions or data concerning the grammaticality of the corresponding structures in Kazakh (30), so cannot speak to whether this analysis would work well for Kazakh.

(29) *[*Hasan-ın* [[e$_i$ *geçen yaz* e$_j$ *ben-i gör-en*] *kişi-ler$_i$]-i*
     Hasan-GEN   last   summer   I-ACC see-*(y)An* person-PL-ACC
tanı-dığ-ı]   *ada$_j$*
know-*DIK*-POSS.3rd_SG island

Intended reading: 'The island (such that) Hasan knows the people who saw me (on it) last summer'

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[6]From Kornfilt (2000, 125-126).

(30) (?)[***Asan–dıŋ*** [[e$_i$ ***ötken jaz***   e$_j$ ***meni kör–gen***] ***kisi–ler***$_i$]***–i–n***
      Asan–GEN   last   summer   I.ACC   see–*GAn*   person–PL–POSS.3rd_SG–ACC
tanı–ğan] ***ataw***$_j$
know–*GAn* island

Intended reading: 'The island (such that) Hasan knows the people who saw me (on it) last summer'

If an analysis involving DPs is adopted, there are several far-reaching implications. The use of DPs as a form of relative clause would suggest that they are similar to, and may optionally replace CPs in function. This would further imply that Kazakh has DPs, but no CPs,[7] and that English has both DPs and CPs. If this is the case, it might prove interesting to determine whether there are languages where CPs exist, but DPs don't—at least for relative clause constructions.

In the end, what sort of analysis of Kazakh relative clauses to adopt depends on the framework employed. In all likelihood, an analysis similar to that for Turkic RCs could be employed, with a little modification; however, the aims of this paper were not so much to provide a specific account of Kazakh RCs within specific framework, but instead to present a complete characterisation of the data, outline previous analyses, and suggest some paths for future analyses.

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[7]While Turkish, Uzbek, and some other Turkic languages have a complementiser borrowed from Persian,*ki*—which corresponds quite well to English "*that*"—Kazakh is missing such a form.

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