

# Kazakh non-finite clauses followed by *-LIQ* as a case in favor of the clause-internal nominalization hypothesis

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It is a widely-held view that the so-called “factive” non-finite clauses are nominalized in Turkic languages. However, there are two different hypotheses about the position of the nominalizer head: some argue that the nominalizer is clause external, while others claim that it is clause-internal (for more on these cf. section 4). We are going to present novel data from Kazakh based on the author’s own research, and show that the Kazakh data support the clause-internal hypothesis. We will focus our attention on a piece of morphology (*-LIQ*) following certain subtypes of “factive” non-finite clauses, and show that this suffix can be best analyzed as the nominalizer, thus offering evidence for the clause-internal nominalization hypothesis.<sup>1</sup>

## 1. “Factive” non-finite clauses

In Kazakh, *-ŦAn*, *-y/AtIn* and *-(A)r*-headed non-finite clauses<sup>2</sup> may occur in argument position (e.g., as objects), as relative clauses or as complement clauses of semantic cases/postpositions. Three illustrative examples<sup>3</sup> are offered in (1)-(3) for each of these usages; in (1), the *-ŦAn*-headed clause is in argument position, in (2) it serves as a relative clause, in (3) it is the complement of the postposition *twrali* ‘about’. For lack of a better term, clauses of this kind are sometimes called “factive” in the Turkological literature (cf. e.g., Kornfilt 1997: 50-

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<sup>2</sup> These differ from one other only in terms of aspect.

<sup>3</sup> The glosses used in this paper are the following: ACC = accusative; CM = compound marker; COP = copula; DAT = dative; GEN = genitive; IMP = imperative; LOC = locative; LV.COMPL = completive light verb; NF = non-finite; NOM = nominalizer; PAST = past; PL = plural; POSS = possessive; PRES = present; RAN = Asarina’s gloss, non-finite; TEMP = temporal marker.

51), in contrast to “subjunctive” non-finite clauses, which are headed by the suffix *-w* in Kazakh. In this paper we will only deal with “factive” non-finite clauses.

- (1) *Äyel-i [Dimas̄-tiŋ awir-ïp qal-yan-in] habarla-di.*  
 wife-POSS.3 [Dimash-GEN get.sick-IP LV.COMPL-NF-POSS.3](ACC)<sup>4</sup> announce-PAST.3  
 ‘His wife announced that Dimash got sick.’

- (2) *Otbasi-niŋ [bir žil burin satip al-yan] üy-i qazir esik-tereze-siz.*  
 family-GEN [one year before buy-NF] house-POSS.3 now door-window-without  
 ‘The family’s house that they bought a year ago is now without door and window.’

- (3) *Soŋyi kün-der-i [Dimas̄-tiŋ awir-ïp qal-yan-i] twrali habar-lar bar.*  
 last day-PL-TEMP [Dimash-GEN get.sick-IP LV.COMPL-NF-POSS.3] about news-PL exist  
 ‘There is news lately about Dimash having gotten sick.’

Most analyses agree that (at least, some subtypes of) “factive” non-finite clauses are nominalized. One of the main reasons for this is the similarity between possessive constructions and the internal structure of “factive” non-finite clauses. In possessive constructions, shown in (4), the possessor is genitive-marked (*-Niŋ*), and the possessee bears possessive marking that agrees in person and number with the possessor. In “factive” non-finite clauses which are in argument position or which are complements of (a certain set of) semantic cases/postpositions, the subject of the clause is in the genitive and a possessive marker, showing agreement with the non-finite subject, appears on the non-finite predicate following the non-finite clause head. Note

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<sup>4</sup> There is no overt accusative morpheme following the 3<sup>rd</sup> person possessive suffix; nevertheless, we know that it is there underlyingly from the allophone of the possessive suffix, *-(s)In*. This allophone appears only if certain suffixes follow the 3<sup>rd</sup> person possessive suffix.

that the subjects of finite clauses have no overt case-marking, and the agreement markers appearing on finite predicates are clearly different from the possessive suffixes.

(4) *Dimash-tiŋ awrw-ï*

Dimash-GEN illness-POSS.3

‘Dimash’s illness’

Moreover, the syntactic position of (at least, some subtypes of) “factive” non-finites in the matrix clause is clearly a nominal position; for instance, argument clauses or clauses that are complements of semantic cases/postpositions occupy NP positions.

While most analyses agree that “factive” non-finite clauses are nominal, they diverge from each other in identifying *where* the nominal head is. There are two main ways of thinking about this issue: the nominalizer is a clause-external head (e.g., Aygen 2002) or the nominalizer is a clause-internal head that embeds the non-finite clause (Borsley & Kornfilt 2000, Kornfilt 2003, Kornfilt & Whitman 2011). (Note that both Aygen and Kornfilt formulate their claims based on Turkish data.)

In what follows, we will look at a piece of morphology (*-LIQ*) that can attach to “factive” non-finite clause heads in Kazakh, and try to determine what kind of syntactic head it spells out, and also how this issue may contribute to the external versus internal nominal head debate.

## **2. The suffix *-LIQ***

In a number of Turkic languages the suffix */-lik/* can follow the non-finite suffix, for instance, in Southern Kipchak languages, such as Kirghiz and Kazakh (Menges 1959: 483); in other Kipchak languages, as in Bashkir (Dimitriev 1948: 261-263) and in Kumük (Benzing 1959: 403-404). It seems to be quite common in Uzbek (Kononov 1960: 363, 369-374, 383)

and in Modern Uyghur, as well (Asarina 2011: 71-126). It is also found in Türkmen (Clark 1998: 456, 480-483). In the following illustrative Kazakh example the non-finite suffix *-ƐAn* is followed by *-LIQ*<sup>5</sup>; note that the non-finite clause is in argument position in the matrix clause.

- (5) *Ömirbek [ötken apta Almatï-da bol-yan-diy-in] ayt-tï.*  
 Ömirbek [last week Almatï-LOC COP-NF-NOM-POSS.3](ACC) say-PAST.3  
 ‘Ömirbek said that he was in Almaty last week.’

The presence of the suffix *-LIQ* is not obligatory in Kazakh,<sup>6</sup> thus the non-finite clause in (5) is grammatical without *-LIQ*, too. Native speakers reported no difference in meaning between sentences (5) and (6), or any other similar sentence pairs.

- (6) *Ömirbek [ötken apta Almatï-da bol-yan-in] ayt-tï.*  
 Ömirbek [last week Almatï-LOC COP-NF-POSS.3](ACC) say-PAST.3  
 ‘Ömirbek said that he was in Almaty last week.’

As far as I am aware, the first work that attempted to give a thorough account of *-LIQ* in Kazakh non-finite clauses is Ótött-Kovács 2015. Moreover, Asarina 2011 offers a detailed analysis of the quite similar data in Uyghur. (Aygen (2002) proposes a similar analysis for several Central Asian Turkic languages, but it is not nearly as detailed and exhaustive as Asarina 2011.)

<sup>5</sup> The suffix *-LIQ* has six allomorphs in Kazakh: *-lik, -liq, -dik, -diq, -tik, tiq*. The rule that governs the alternation in the suffix-initial consonant does not concern us here, it is enough to mention that this phenomenon has to do with the so-called syllable contact law. Note that the suffix-final velar stop is realized as a voiceless stop ([k] or [q]) if it is situated in coda position, and as a voiced stop or fricative if it is an onset ([g] or [ɣ]).

As a formative, *-LIQ* can have several functions, among other things to form abstract nouns. It is also noteworthy that *-LIQ* can attach to nouns (e.g., *elši* ‘ambassador’ → *elšilik* ‘embassy’) as well as to adjectives (*žürekti* ‘brave’ → *žürektilik* ‘braveness’).

<sup>6</sup> There is one exception, causal adverbial clauses headed by *-ƐAndIqtAn* (i.e., *-ƐAn -LIQ -DAn*) or *-y/AtIndIktAn*.

The most important question is what syntactic head *-LIQ* realizes, and this is the question that this paper tries to answer (for the Kazakh data). There are two viable ways to analyze *-LIQ*: either as a nominalizer (as proposed in Ótött-Kovács 2015) or as a Complementizer (as maintained in Asarina 2011 for the Uyghur data). In what follows, we will argue for the *-LIQ*-as-nominalizer account, which, if on the right track, also supports the internal nominal head analysis of the “factive” non-finite clauses.

### **3. *-LIQ* following non-finite clauses, and agreement marking patterns in Kazakh**

In the following two sections we will introduce the relevant Kazakh data; in 3.1, we will focus on when *-LIQ*-attachment is allowed, then in 3.2, we will turn our attention to the agreement marking (in the form of possessive suffixes) on the non-finite predicate and its correlation with the availability of *-LIQ*-attachment. The data presented in this section come from grammaticality judgment questionnaires filled out by twenty native speakers and from my consultations with native speaker informants<sup>7</sup>. Most of the data here also appeared in my unpublished PhD dissertation (Ótött-Kovács 2015).

#### **3.1 The availability of *-LIQ* following “factive” non-finites**

As mentioned above, “factive” non-finite clauses can appear in argument position, as relative clauses and as complements of semantic cases/postpositions. I had about 75 sentences in my questionnaire that contained non-finite clauses in different syntactic positions, with or without *-LIQ*, and with or without agreement marking (see more on this latter point in 3.2). The results of my grammaticality judgment questionnaire show that *-LIQ*-attachment is dependent on the position of the non-finite clause in the matrix clause. (Following the example sentences, I show how many informants marked the sentence grammatical; the notation “QM” stands for

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<sup>7</sup> I am especially grateful for the help of Mukusheva Raushangul, the Kazakh language instructor and lecturer at the University of Szeged, Hungary.

question mark, which the informants were instructed to use if they were not sure about their judgments.)

First of all, the results of my questionnaire clearly show that *-LIQ*-attachment is not possible in relative clauses. An illustrative example is offered in (8), which shows the unacceptability of *-LIQ*-attachment. (Note that the sentence is ungrammatical regardless of the presence or absence of the genitive and the agreement marking.) There were several sentences in my questionnaire similar to (8), all of which turned out to be unacceptable. Sentence (7), without *-LIQ*, is grammatical.

- (7) [*Äke-m-niŋ*                    *armanda-yan*] *bir toy-ï*                    *öt-ti.* (20/16)<sup>8</sup>  
 [father-POSS.SG1-GEN dream-NF]    one celebration-POSS.3 pass-PAST.3  
 ‘It was such a celebration that my father had dreamt of.’

- (8) \* [*Äke-m-(niŋ)*                    *armanda-yan-diŋ(-ï)*]    *bir toy*                    *öt-ti.* (20/0)  
 [father-POSS.SG1-(GEN) dream-NF-NOM(-POSS.3)] one celebration pass-PAST.3  
 Intended: ‘It was such a celebration that my father had dreamt of.’

In contrast to relative clauses, *-LIQ*-attachment is possible to non-finite clauses in argument position. The *-IAn*-headed clause in (9) and (10) is the object of the matrix predicate *ayt-* ‘to say’. As shown in (10), *-LIQ* can follow the non-finite clausal head, if the clause is in argument positions. Sentences (9) and (10)(=(5)) also illustrate that *-LIQ* is not obligatory.

- (9) *Ömirbek [ötken apta Almatï-da bol-yan-ïn]*                    *ayt-tï.* (20/18)  
 Ömirbek [last    week Almatï-LOC COP-NF-POSS.3](ACC) say-PAST.3

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<sup>8</sup> The numbers indicate that out of 20 informants, in this case, 16 accepted the sentence as grammatical. “QM” stands for ‘question mark’ (i.e., when informants were not sure about their judgments).

‘Ömirbek said that last week he was in Almaty.’

(10) *Ömirbek [ötken apta Almatī-da bol-yan-diy-ın] ayt-ti. (20/15 (3 QM))*

Ömirbek [last week Almatī-LOC COP-NF-NOM-POSS.3](ACC) say-PAST.3

‘Ömirbek said that he was in Almaty last week.’

As we will see both with respect to *-LIQ*-attachment and agreement marking, complement clauses of semantic cases/postpositions have three subtypes; I will mark these sentences with the notations  $\alpha$ ,  $\beta$  and  $\gamma$ . The three subtypes of complement clauses of semantic cases/postpositions behave differently with respect to *-LIQ*-attachment.

Complement clauses of the postpositions (*-ABL*) *soŋ* ‘after’ and *sayın* ‘every’ belong to the  $\alpha$ -type, *-LIQ*-attachment is not possible in this type, as shown in (12).

(11) *[Äšim bayandama žasa-yan] sayın, žurt köp kel-edi. (20/19)*

[Äšim lecture make-NF] every people many come-PRES.3

‘Every time Ashim gives a lecture, many people come.’

(12) \* *[Äšim-(niy) bayandama žasa-yan-diy(-i)] sayın, žurt köp kel-edi. (20/2)*

[Äšim-(GEN) lecture make-NF-NOM-(POSS.3)] every people many come-PRES.3

Intended: ‘Every time Ashim gives a lecture, many people come.’

In the  $\beta$ -type, the “factive” non-finite can be the complement of *twrali* ‘about’, *üşin* ‘for; in order to’ or *-Men* instrumental (semantic) case. Clauses belonging to the  $\beta$ -group were accepted by the majority of speakers when they were followed by *-LIQ*. In (13) and (14) the -

*ΓAn*-headed clause is the complement of the postposition *twrali* ‘about’; as (14) shows, *-LIQ*-attachment is fully acceptable.

- (13) *Putin-niη baspasöz çatši-si [president-tiη neke-ge tur-yan-i] twrali*  
 P.-GEN press secretary-POSS-3 [president-GEN marriage-DAT stand-NF-POSS.3] **about**  
*χabar-di žoqqa šiyar-di. (20/19)*

news-ACC refute-PAST.3

‘Putin’s spokesman refuted the news about the president having gotten married.’

- (14) *Putin-niη baspasöz çatši-si [president-tiη neke-ge tur-yan-diη-i]*  
 P.-GEN press secretary-POSS-3 [president-GEN marriage-DAT stand-NF-NOM-POSS.3]  
*twrali χabar-di žoqqa šiyar-di. (20/20)*

**about** news-ACC refute-PAST.3

‘Putin’s spokesman refuted the news about the president having gotten married.’

Complement clauses of the semantic cases locative, dative, ablative, *-šA*, *-DAy*, and the remaining postpositions belong to the  $\gamma$ -type, which is something of an intermediate group between group  $\alpha$  and  $\beta$ . The judgments of native speakers indicate that although *-LIQ*-attachment is not impossible, it is not preferred, and in such cases the *-LIQ*-attachment is only marginally acceptable. In (15) and (16), the *-ΓAn*-headed clause is the complement of the locative semantic case; such clauses yield the meaning ‘when’. Sentence (16) illustrates that *-LIQ*-attachment is only marginally possible.<sup>9</sup>

- (15) *[Men danyıra soq-qan]-da qiriq esik-ti bekit-ip tasta-ηdar. (20/18)*

<sup>9</sup> Due to space consideration, we cannot show other examples from this type, but note that there are cases (e.g., with the semantic case *-DAy* ‘like’) where *-LIQ*-attachment is more acceptable. For details see Ótött-Kovács 2015.

[I kind.of.drum hit-NF]-LOC forty door-ACC close-IP LV.COMPL-IMP.PL2

‘When I hit the drum, close the forty doors.’

(16) ?\*[*Danyıra soq-qan-diy-im*]-da qiriq esik-ti bekit-ip tasta-ıdar. (20/5 (1 QM))

[kind.of.drum hit-NF-NOM-POSS.1]-LOC forty door-ACC close-IP LV.COMPL-IMP.PL2

Intended: ‘When I hit the drum, close the forty doors.’

The following table summarizes our findings of the possibility of *-LIQ*-attachment. We can see that *-LIQ*-attachment is only possible to argument clauses, and to the  $\beta$ -subtype of complement clauses of semantic cases/postpositions.<sup>10</sup>

(17) Possibility of *-LIQ*-attachment

Position of the <i>-An/-y/AtIn/-(A)r</i> -headed clause	Can <i>-LIQ</i> follow the clause?
Relative clause	no
<b>Argument clause</b>	<b>yes</b>
Complement of a semantic case/postposition ( $\alpha$ ) <sup>11</sup>	no
<b>Complement of a semantic case/postposition (<math>\beta</math>)<sup>12</sup></b>	<b>yes</b>

<sup>10</sup> As for why *-LIQ*-attachment is only possible in the complement clauses of the  $\beta$ -type of semantic cases/postposition but not in other types, we could point out that instrumental *-Men* and the postposition *üšin* ‘for, in order to’ pattern together in other respects as well. They are the only cases/postpositions that assign genitive case to their pronominal complement (i.e., *onıymen* ‘with it/him/her’, *meniıy üšin* ‘for me’); no other cases or postpositions license genitive to their complements. That is, it is not completely unexpected that the instrumental case and the postposition *üšin* would pattern together in other respects, as well.

<sup>11</sup> Complement clauses of the following postpositions belong to this group: *-(ABL) soı* ‘after’, *sayın* ‘every’.

<sup>12</sup> Complement clauses of the following postpositions/semantic cases belong to this group: *twralı* ‘about’, *üšin* ‘for; in order to’, *-Men* (INSTR semantic case).

Complement of a semantic case/postposition (γ) <sup>13</sup>	(preferred:) no
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### 3.2 Agreement marking patterns in “factive” non-finites

Just as in the case of *-LIQ*-attachment, with respect to agreement marking on the non-finite predicate, too, we see two different patterns among “factive” non-finite clauses.

In relative clauses, the subject agreement (i.e., possessive) marking cannot be indicated on the non-finite predicate, as shown in the ungrammatical example (18).

(18) \* [*Äke-m-niŋ*            *armanda-yan-ï*] *bir toy*            *öt-ti*.

[father-POSS.SG1-GEN dream-NF-POSS.3] one celebration pass-PAST.3

‘It was such a celebration that my father had dreamt of.’

Two agreement marking patterns are possible in relative clauses: the agreement is either not marked and the subject of the relative clause is nominative (shown in (19)), or the agreement is on the modified noun phrase and the subject is in the genitive (shown in (20)).

(19) [*Äke-m*            *armanda-yan*] *bir toy*            *öt-ti*.

[father-POSS.SG1 dream-NF]            one celebration pass-PAST.3

‘It was such a celebration that my father had dreamt of.’

(20) [*Äke-m-niŋ*            *armanda-yan*] *bir toy-ï*            *öt-ti*. (20/16)

[father-POSS.SG1-GEN dream-NF]            one celebration-POSS.3 pass-PAST.3

‘It was such a celebration that my father had dreamt of.’

<sup>13</sup> Complement clauses of the remaining postpositions/semantic cases belong to this group, such as locative, dative, ablative, *-şA*, *-DAy*, *-ABL keyin* ‘after’, etc.

In this latter case, the agreement marking is seemingly not in the same phase as the subject is. There are several accounts on this phenomenon (Hale 2002, Kornfilt 2005, 2009, Asarina 2011, etc.), but since this issue is not our main focus in this paper, we can only direct the reader’s attention to them.

If the “factive” non-finite clause is in argument position, the agreement is always marked, regardless of whether the non-finite and the matrix clause have the same subject. This is shown in (21); (22) is ungrammatical, because the agreement is missing on the non-finite predicate.

- (21) *Ömirbek [ötken apta Almatî-da bol-yan-în] ayt-tî. (20/18)*  
 Ömirbek [last week Almatî-LOC COP-NF-POSS.3](ACC) say-PAST.3  
 ‘Ömirbek said [that last week he was in Almaty].’

- (22) \* *Ömirbek [ötken apta Almatî-da bol-yan]-dî ayt-tî.<sup>14</sup>*  
 Ömirbek [last week Almatî-LOC COP-NF]-ACC say-PAST.3  
 Intended: ‘Ömirbek said [that last week he was in Almaty].’

With respect to the availability of agreement marking, we can distinguish the same subtypes of complement clauses of semantic cases/postpositions that we have distinguished with respect to *-LIQ*-attachment. In the  $\alpha$ -group (complement clauses of the postpositions (-ABL) *soj* ‘after’ and *sayîn* ‘every’) agreement marking is not grammatical, as shown in (23). Also note the grammatical (11) without the agreement marking.

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<sup>14</sup> Sentence (22) was not in the questionnaire because our initial grammaticality judgment tests with speakers had indicated that it is clearly ungrammatical. The statistical information about unacceptability is missing for this reason.

(23) \* [Äšim-(*niŋ*) bayandama žasa-*yan-ï*] *sayın, žurt köp kel-edi.* (20/2 (1 QM))

[Äšim-(GEN) lecture make-NF-POSS.3] every people many come-PRES.3

Intended: ‘Every time Ashim gives a lecture, many people come.’

In case of the  $\beta$ -type of complement clauses (with the postpositions *twrali* ‘about’ and *üšin* ‘for; in order to’ or with the instrumental *-Men*), agreement is strongly preferred, as in (13), while the agreement-less variant is less acceptable (cf. (24)).

(24)\*/?? *Putin-niŋ baspasöz çatši-si* [president neke-ge *tur-yan*] *twrali*

P.-GEN press secretary-POSS-3 [president marriage-DAT stand-NF] **about**

*xabar-di žoqqa šiyar-di.* (20/4 (3 QM))

news-ACC refute-PAST.3

Intended: ‘Putin’s spokesman refuted the news about the president having gotten married.’

Lastly, in the  $\gamma$ -group (i.e., in the complement clauses of the semantic cases locative, dative, ablative, *-šA*, *-DAy*, and the remaining postpositions), the preferred strategy is not to mark agreement, but agreement seems acceptable to varying degrees. For an example without agreement see (15); non-finite clauses in both (25) and (26) have agreement marking on their predicates. The difference is that the genitive-marked subject of the non-finite clause is less-acceptable (as shown in (26)), than the nominative one (in (25)).

(25) [*Men danyıra soq-qan-ïm*]-*da* *qiriq esik-ti bekit-ip tasta-ŋdar.* (20/15 (1 QM))

[I kind.of.drum hit-NF-POSS.1]-LOC forty door-ACC close-IP LV.COMPL-IMP.PL2

‘When I hit the drum, close the forty doors.’

(26) ??[*Meniñ dañyıra soq-qan-ïm*]-*da qiriq esik-ti bekit-ip tasta-ñdar*.(20/8 (1 QM))

[I.GEN kind.of.drum hit-NF-POSS.1]-LOC forty door-ACC close-IP LV.COMPL-IMP.PL2

‘When I hit the drum, close the forty doors.’

The following table sums up our generalizations about the agreement marking on the non-finite predicate; our results have shown that agreement is only allowed in case of argument clauses, in the  $\beta$ -group, and somewhat restrictedly in the  $\gamma$ -group of complement clauses of semantic cases/postpositions. (We cannot not address the issue of subject case marking at length here; for more details see Ótött-Kovács 2015.)

(27) Types of “factive” non-finites and the agreement marking

<b>Position of the Aspectual non-finite clause</b>	<b>Agreement marking</b>
Non-subject relative clause	a. no agreement
	b. agreement on the modified noun phrase
<b>Argument position</b>	<b>agreement</b> (on the NF predicate)
Complement of semantic cases/postpositions	$\alpha$ . no agreement
	<b><math>\beta</math>. agreement</b> (on the NF predicate)
	( $\beta$ b. no agreement(?))
	$\gamma$ a. no agreement
	$\gamma$ b. agreement (on the NF predicate)

It is clear from tables (17) and (27) that the availability of *-LIQ*-attachment and agreement marking on the non-finite predicate are in correlation with each other. The next section attempts to explain this correlation.

#### 4. Is *-LIQ* a Complementizer or a Nominalizer?

There are two different accounts of the function of *-LIQ* following “factive” non-finite clauses. According to the first account (as proposed in Asarina 2011: 71-126 for Uyghur) *-LIQ* is a Complementizer head that embeds (most probably) AspP, which would be headed by *-ΓAn*, *-y/AtIn* or *-(A)r* in Kazakh. Moreover, according to this approach, an *external* nominal head *always* nominalizes the non-finite clause. This external nominal head is responsible for the genitive case assignment to the subject of the non-finite clause and for the nominal morphology (possessive agreement, case marking) on the non-finite predicate (in which case the external nominal head is null). Note that Asarina (2011: 71-126) applies the weak version of Chomsky’s Phrase Impenetrability Condition,<sup>15</sup> which allows case assignment by a phase external head if there is no intervening phase head.

Under such an approach all non-finite clauses (i.e., argument clauses, relative clauses, complement clause of semantic cases/postpositions) have the same syntactic structure, which is basically a CP nominalized by an external nominal head, shown in (28) (based on Asarina 2011: 89).

In the case of relative clauses (and noun complement clauses, cf. below) the external noun head, which is the noun that the relative clause modifies, is overt. As for the Complementizer head, it can be overt, spelled-out by *-LIQ*, or null. The spell-out of the Complementizer is said to be sensitive to the type of the clause it heads; for instance, in the case

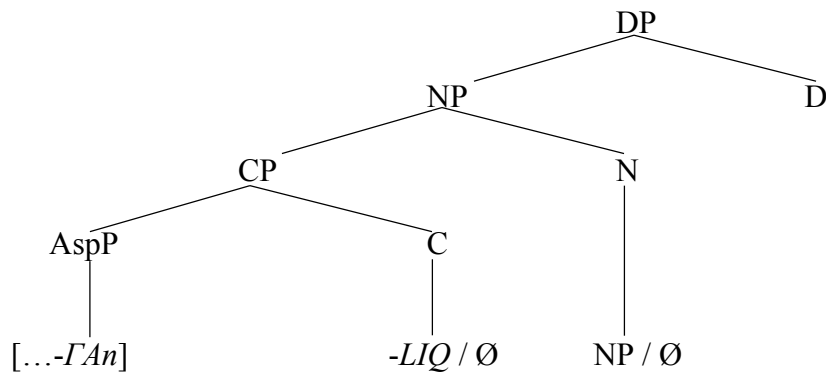
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<sup>15</sup> The following definition of the Weak Phrase Impenetrability Condition is quoted from Asarina (2011: 71): “In phase  $\alpha$  with head H, the domain of H is accessible to operations outside  $\alpha$  only until the next (strong) phase head is merged.”

of relative clauses the overt realization of the Comp head is null, while in argument clauses the spell-out is *-LIQ*.

Moreover, in argument clauses and in complement clauses of semantic cases/postpositions, the external nominal head is null, therefore the nominal morphology (possessive agreement, case marker) appears on the non-finite predicate. (Note that the Complementizer can be either *-LIQ* or null, depending on the subtype of the clause.)

(28) Structure of non-finite clauses according to the *-LIQ*-as-Complementizer approach



One of the strongest arguments against the *-LIQ*-as-nominalizer and in favor of *-LIQ*-as-Complementizer approach comes from noun complement clauses. In this kind of clause, *-LIQ* can appear on the non-finite predicate (shown in (29)), but the agreement cannot be indicated after it, as illustrated in (30).<sup>16</sup> According to Asarina (2011: 93-94) this implies that *-LIQ* is not a nominalizer, since agreement cannot follow it; rather the external nominal head (in this case *ifaret* ‘sign’) is responsible for the nominal structure.

<sup>16</sup> My questionnaire did not include sentences with noun complement clauses, but constructions similar to that in (29) can be found in Kazakh, as well. An example is offered in (i), where the subject of noun complement clause is in the genitive, and the agreement with it is indicated on the noun that the clause modifies (*habar* ‘news’). Since I did not have such sentences in the questionnaire, nothing definite can be said about the possibility of *-LIQ*-attachment at this point, but I should note that noun complement clauses, such as the one in (i), seem to be preferred without the suffix *-LIQ*.

(i) *Murat-tij qaytis bol-yan xabar-i kel-di.*  
 Murat-GEN pass.away-NF news-POSS.SG3 come-PAST.3  
 ‘There came the news that Murat has passed away.’

(29) [Ötkür-*niŋ* tamaq ji-gen-(liq)] ifaret-*i* muhim.

[Ötkür-GEN food eat-RAN-(LIQ)] sign-3.POSS important

‘The sign that Ötkür ate food is important.’ (Uyghur, from Asarina 2011: 94)

(30) \*[Ötkür-*niŋ* tamaq ji-gen-(liq)-*i*] ifaret-(*i*) muhim.

[Ötkür-GEN food eat-RAN-(LIQ)-3.POSS] sign-(3.POSS) important

Intended: ‘The sign that Ötkür ate food is important.’ (Uyghur, from Asarina 2011: 94)

However, the *-LIQ*-as-Complementizer account does not explain the agreement marking facts in Kazakh, introduced in 3.2, and the correlation between *-LIQ*-attachment and agreement marking.

Firstly, the *-LIQ*-as-Complementizer approach cannot explain why agreement marking is not possible in complement clauses of semantic cases/postpositions. According to the *-LIQ*-as-Complementizer account, agreement marking should always be available, since there is always an external (in this case, null) nominal head.<sup>17</sup>

Secondly, the source of the correspondence between *-LIQ*-attachment and agreement marking is not clear under this approach. More specifically, it cannot explain why the agreement marking (on the non-finite predicate) is impossible exactly in the same clauses where *-LIQ* is not the appropriate spell-out of the Complementizer head.

I argue that these two pieces of data are not easily explainable by the *-LIQ*-as-Complementizer approach; thus I propose a different account in which the suffix *-LIQ* is the

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<sup>17</sup> We have to mention that Asarina 2011 does not deal with agreement marking and complement clauses of semantic cases/postpositions in detail in her work on Uyghur, so we cannot be sure that the Uyghur and Kazakh data are identical in this respect. The issues that we raise, therefore, may only pertain to Kazakh.

spell-out of the (clause-internal) nominalizer head that selects for a clausal (possibly AspP) complement.

First of all, it is noteworthy that *-LIQ* is only possible in clauses that occupy “typical” nominal positions, such as in argument position or as complements of (certain) semantic cases/postpositions. On the other hand, *-LIQ*-attachment is not grammatical in relative clauses, which are clearly not in nominal position. (Note that noun complement clauses, like the one in (29), behave as nouns; for example, in Turkish they trigger the “compound marker” on the noun whose complement they are.<sup>18</sup>) Thus the correspondence between “typical” noun phrase positions and the availability of *-LIQ*-attachment implies that the *-LIQ*-as-nominalizer approach is on the right track.

Moreover, the agreement marking pattern (cf. in (27)), and the correlation between the possibility of *-LIQ*-attachment and agreement marking is readily explainable under this approach. If we assume that *-LIQ* is a nominalizer, it is not surprising that nominal morphology (such as possessive agreement) can follow the nominalized clauses, but not non-nominal clauses. Note that under this approach not all “factive” non-finite clauses are nominalized; clauses where *-LIQ*-attachment is not possible, are not nominalized, rather are AspP-s that can be complements of, for instance, the relative operator or certain semantic cases/postpositions<sup>19</sup>. Therefore, if *-LIQ*-attachment is possible, the clause is nominalized, thus (possessive)

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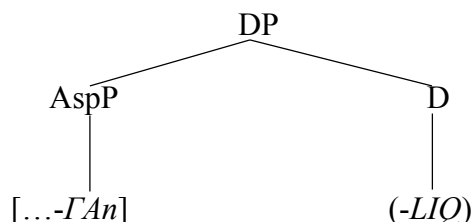
<sup>18</sup> Example (i) illustrates this; the “compound marker” on *iddia* ‘claim’ implies that the non-finite clause, indicated in square brackets, and *iddia* form a noun-noun compound.

(i) *[Ali'nin serbest kal-dığ-ı] iddia-sı yalanlan-dı.*  
[Ali-GEN free stay-NF-POSS.SG3] claim-CM refute-PAST.SG3  
‘The claim that Ali was freed, was refuted.’

<sup>19</sup> I argue that semantic cases and postpositions may have different selectional properties; semantic cases/postpositions of the  $\alpha$ -type select for AspP-s, in the  $\beta$ -type semantic cases/postpositions select for DP-s, while semantic cases/postpositions of the  $\gamma$ -type may select for both AspP-s or DP-s.

agreement marking is also available (shown in (31)<sup>20</sup>); whereas if *-LIQ*-attachment is not possible, it means that the clause is not nominalized, and agreement marking is not available.<sup>21</sup>

(31) Structure of nominalized non-finite clauses under the *-LIQ*-as-nominalizer approach



Note that this is not to say that agreement marking is only possible following nominalized clauses; we have to acknowledge that there might be other factors that play a role in agreement marking,<sup>22</sup> but the massive correlation between *-LIQ*-attachment and agreement marking indicates that nominalization is the main factor in the availability of agreement marking following non-finite clauses in Kazakh.

Lastly, we turn to noun complement clauses, which pose a problem for the *-LIQ*-as-nominalizer approach. More specifically, the unavailability of agreement marking following the non-finite clause is not easily explainable under this account. We are not able to offer a final analysis at this point, but we shall mention that there are ways of explaining the data under the *-LIQ*-as-nominalizer approach, too. For instance, we could argue that the genitive-marked

<sup>20</sup> Note that I analyze the nominalizer *-LIQ* as a Determiner head. Due to space considerations, I cannot discuss this issue in detail, but see Ótött-Kovács 2015.

<sup>21</sup> An anonymous reviewer points out that it is possible that *-LIQ* is a clause-external noun head that selects for a CP. While we think this is theoretically possible, there are some issues with this view. First of all, the Complementizer head would always need to be null, which is in theory possible, but, at this point, we do not have any evidence for or against its existence. Also, this approach would not bring us any closer to explain the data; it provides us exactly the same explanatory force as the approach I am proposing.

Alternatively, one might propose, suggests the reviewer, that *-LIQ* is a complementizer which is only pronounced if an (external) noun head attaches to it. This is very unlikely, since *-LIQ* cannot be spelled out in relative clauses, when there is clearly a noun head following the clause.

<sup>22</sup> We could not go into the details of the nuances of agreement marking in the  $\gamma$ -type of complement clauses of semantic cases/postpositions, which might only be explainable with some other factors than the nominalized status of the non-finite clause. For details see Ótött-Kovács 2015.

subject in sentences such as (29) raises to the matrix clause, and therefore there is no available subject in the non-finite clause that could trigger agreement on the non-finite predicate.

## 5. Conclusions

There is a suffix, *-LIQ*, which can attach to “factive” non-finite clause in Kazakh, but crucially – as we have shown – not to every subtype of “factive” non-finite clauses. *-LIQ*-attachment turned out to be possible only in case of argument clauses and certain complement clauses of semantic cases/postpositions. It is noteworthy that these positions are “typical” noun phrase positions. *-LIQ*-attachment, on the other hand, is not possible following relative clauses and a subtype ( $\alpha$ -group) of complement clauses of semantic cases/postpositions. We have also shown that agreement marking is in correlation with the availability of *-LIQ*-attachment; agreement marking was shown to be possible in exactly those cases where *-LIQ* was, too.

Based on these data, we argued that not all “factive” non-finite clauses are nominalized; the ones in which *-LIQ*-attachment is grammatical are nominalized, but not those where *-LIQ*-attachment is prohibited. The availability of nominal morphology, such as (possessive) agreement, is in correlation with the nominalized status of the “factive” non-finite clause.

This set of data is not easily explainable under the *-LIQ*-as-Complementizer approach that would always allow (possessive) agreement marking, and could offer no explanation for the *-LIQ* and agreement marking correspondences. Thus we concluded that the *-LIQ*-as-nominalizer approach can account for the Kazakh data better. Moreover, it also offers evidence for the clause-internal nominalizer hypothesis, since *-LIQ* is not an external nominal head; this view is in contrast with the *-LIQ*-as-Complementizer approach, which maintains that nominalized “factive” non-finite clauses are nominalized by an external nominal head, i.e., all such clauses would have the same underlying structure as relative clauses or noun complement clause constructions.

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