

# COMPLEMENTIZER ALLOMORPHY IN BUSAN KOREAN

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## 1 Introduction

This paper investigates the phenomenon of complementizer agreement in the Busan dialect of Korean, which depends on both (i) the categorial feature of the predicate and (ii) the type of question (polar vs. content). While various languages such as West Flemish (Haegeman 1990), South Hollandic (Van Haeringen 1939), Munich Bavarian (Kufner 1961) display a phenomenon of complementizer agreement, where the complementizer allomorphy is generally inflected for number and/or person of the subject and agrees with it, the allomorphy based on categorial feature is typologically quite rare. The following are examples from West Flemish, South Hollandic, Munich Bavarian and Busan Korean (So 1984).

- (1) a. **..da-n-k**      ik      komen      [West Flemish]  
         that-1.SG-I    I      come-1.SG  
     b. **..da- Ø-j**      gie      komt  
         that-2.SG -you   you   come-2.SG  
     c. **..da-t-j**      ij      komt  
         that-3.SG-he    he    come-3.SG  
     d. **..da-n-ze**      zunder   komen  
         that-3.PL-they   they    come-3.PL
- (2) a. **..dat**    ik    kom      [South Hollandic]  
         that    I    come  
     b. **..dat-e**    we    komme  
         that-PL   we    come-PL

- (3) a. **..damid** ich komm [Munich Bavarian]  
       so.that I come  
       b. **..damid-sd** komm-sd  
       so.that-2.SG come-2.SG  
       c. **..damid-ds** komm-ds  
       so.that-2.PL come-2.PL

As illustrated in (1)-(3), the agreement morpheme on the complementizer is identical to the agreement morpheme on the verb. In example (1a) the complementizer *-da-n-k* is inflected for first person *-k* and singular *-n*. However, Busan Korean (henceforth BK) presents a phenomenon of unusual complementizer agreement. The basic paradigm for the complementizer allomorphy in interrogatives is illustrated in (4), with the complementizers shown in boldface.

- (4) a. Ni-ka chayk-ul ilk-**na**? [Busan Korean]  
       you-NOM book-ACC read-COMP  
       ‘Are you reading a book?’  
       b. Ni-ka mwe-lul ilk-**no**?  
       you-NOM book-ACC read-COMP  
       ‘What are you reading?’  
       c. Ce salam-i Swumin-i-**ka**?  
       that man-NOM Swumin-COP-COMP  
       ‘Is that woman Swumin?’  
       d. Ce salam-i nwu-Ø-**ko**?  
       that man-NOM who- COP-COMP  
       ‘Who is that woman?’

The different question endings encode distinctive information. The examples (4-a) and (4-c), where the complementizers end with a vowel *-a*, are polarity questions, while the examples (4-b) and (4-d) are *wh*-questions and their complementizer ends with a vowel *-o* in common. Moreover, the examples in (4-a) and (4b) whose complementizers start with a consonant *-n* present the questions which have verbal predication, whereas a copula<sup>1</sup> relates two DPs in the questions in (4-c) and (4-d) and the complementizer allomorphy has common with a consonant *-k*.

Based on these considerations, we investigate this typologically rare form of allomorphy in BK interrogative complementizers. To be more specific, the aim of this paper is to provide an analysis of these complementizers, which are derived by an Agree relation with the closest categorial feature, based on the general properties of Korean grammar. To achieve this goal, first, we will show that the BK interrogative complementizer is a bimorphemic complex (a consonant + a vowel) with the basic paradigm of data. In this complex, the consonant (hereafter K) co-varies with the lexical category of the predicate and the vowel (hereafter V) represents the type of question (i.e. polarity versus content). Then, we will show the puzzling case of allomorphy that found on the K. The K-allomorphy is systematically changed in the presence of a past tense

<sup>1</sup> In BK, a copula is conditioned phonologically and realized either /i/ or Ø. When the immediately preceding phoneme has [+consonantal] feature, /i/ should be inserted. Otherwise, the zero morpheme Ø will be placed. That is, as described in (4c) and (4d), *Swumin* is followed by /i/, whereas *nwu* is followed by a null morpheme.

or a modal suffix. Furthermore, we will extend our discussion to other unexpected cases where the form of the K-allomorphy is altered in nominalized constructions. It will be demonstrated that these erratic K-allomorphy in BK interrogative complementizers is determined with respect to the categorical status of the predicate (Kv versus Kn). Then, we will propose a split CP domain in the left periphery where distinct probes (K and V) in the C layer on Int and Force (in the spirit of Rizzi, 1997, 2001) search each goal to agree with.

This paper is organized as follows: Section 2 discusses the intertwined factors by which the four complementizers such as *-ka*, *-ko*, *-na* and *-no* give rise to appear, and shows unexpected case of allomorphy with instances of the various constructions. In Section 3, we propose a split-CP hypothesis to account for the bi-morphemic complex of interrogative complementizers. Section 4 provides a unified analysis for the structure of left periphery in BK interrogatives, by general computational properties. Section 5 discusses the future research issues and concludes the paper.

## 2 Allomorphy of BK Interrogative Complementizer

In this section, we recall the data shown in Section 1 in consideration of the bimorphemic property of interrogative complementizers. Secondly, the three constructions that show the puzzling form of K-allomorph (*-k* → *-n*) are examined: (i) the overt past tense suffix *-(y)ess* constructions, (ii) the volitive modal suffix *-keyss* construction, and (iii) the evidential modal suffix *-te* constructions. As will be seen shortly, the insertion of TAM markers forces structures with nominal predication to involve the same type of verbal predication. On the contrary, two other constructions will be presented in which unexpected cases of K-allomorphy (*-n* → *-k*) is found.

### 2.1 Bimorphemic Complex

So (1984, 1987), Lee (1988), and Yoon (2003) deal with the phenomenon of complementizer concord in BK. They assume that the question-particles *-ka*, *-ko*, *-na* and *-no* in C position are single morphemes which contain Q features. It is argued that the complementizers *-ka* and *-na* are categorized as the one with the [+Q] feature, whereas *-ko* and *-no* should be grouped into complementizers with [+wh, +Q] feature. Although So (1984, 1987), and Yoon (2003) describe the morpho-syntactic environment where each complementizers arises, arguing that *-na* and *-no* accompany questions with non-copula verbs, while *-ka* and *-ko* accompany questions with the copula. In these studies, however, there is a limitation that fails to examine the distinction between the allomorphy in terms of consonants (*-k* and *-n*) more closely. Regarding the data in (5), it is observed that the complementizer is actually a sequence of two morphemes, K-V.

- (5) a. Ni-ka      chayk-ul      ilk-**n-a**?      [= (4)]  
       you-NOM    book-ACC    read-Kv-V<sub>Q</sub>  
       ‘Are you reading a book?’  
       b. Ni-ka      mwe-lul      ilk-**n-o**?  
       you-NOM    book-ACC    read-Kv-V<sub>WH</sub>  
       ‘What are you reading?’

- c. Ce salam-i Swumin-i-**k-a**?  
 that man-NOM Swumin-COP-**Kn-V<sub>Q</sub>**  
 ‘Is that woman Swumin?’
- d. Ce salam-i nwu-Ø-**k-o**?  
 that man-NOM who- COP-**Kn-V<sub>WH</sub>**  
 ‘Who is that woman?’

The variants of complementizers show a systematic pattern. First, *-k* appears following the copula *-i* in the copula clause, where only two DPs are related into predication and has no verb in BK, while *-n* is selected in the verbal predication construction. Second, the sentences containing *wh*-phrases end with *-o* or *-no*, while polarity questions end with *-a*.

Table 1. The Basic Paradigm for BK Interrogative Complementizer

Predication Question	Non-verbal (Kn)	Verbal(Kv)
Content (V <sub>WH</sub> )	<b>-k-o</b>	<b>-n-o</b>
Polarity (V <sub>Q</sub> )	<b>-k-a</b>	<b>-n-a</b>

As it is summarized in the table above, the K-allomorphy co-varies with respect to the categorical feature of the predicate (K<sub>v</sub> versus K<sub>n</sub>), while the V-allomorphy differs with respect to the type of question (V<sub>Q</sub> versus V<sub>WH</sub>).

## 2.2 Puzzling case 1 (*-k* → *-n*)

In the following sections, we will present the phenomena when certain complementizers are blocked from appearing in expected environment with specific suffixes above Tense Phrase: Past, evidential and volitive modal suffixes. In Busan Korean, the past tense is realized as *-ess* ~*-yess*, although the present tense is unmarked in matrix clauses. Below examples are the cases which past tense suffix is inserted:

- (6) a. Ni-nun chayk-ul ilk-ess-**n-a**?  
 you-TOP book-ACC read-PST-**Kv-V<sub>Q</sub>**  
 ‘Did you read a book?’
- b. Ni-nun mwusun chayk-ul ilk-ess-**n-o**?  
 you-TOP which book-ACC read-PST-**Kv-V<sub>WH</sub>**  
 ‘Which book did you read?’
- c. Ni-nun Sezanne-uy kulim-ul coh-a-ha-yess-**n-a**?  
 you-TOP Sezanne- GEN painting-ACC like-INF-*v*-PST-**Kv-V<sub>Q</sub>**  
 ‘Did you like Sezanne’s paintings?’
- d. Ni-nun nwuku-uy kulim-ul coh-a-ha-**n-o**?  
 you-TOP whose painting-ACC like-INF-*v*-**Kv-V<sub>WH</sub>**  
 ‘Whose paintings did you like?’

The allomorphy of the interrogative complementizers in (6) shows the expected pattern depending on the Table 1. Consider the examples in (7) which the past tense suffix appears with the copula predication.

- (7) a. Ku-key cikap-i-yess-**n-a**\*(**k-a**)?  
       that-one wallet-COP-PST-**K<sub>v</sub>-V<sub>Q</sub>** \*(**K<sub>n</sub>-V<sub>Q</sub>**)  
       ‘Was that (thing) a wallet?’  
   b. Enu-key ni cikap-i-yess-**n-o** \*(**k-o**)?  
       which-one your wallet-COP-PST-**K<sub>v</sub>-V<sub>WH</sub>** \*(**K<sub>n</sub>-V<sub>WH</sub>**)  
       ‘Which one was your wallet?’  
   c. Ce salam-i Mincwun-i-yess-**n-a**\*(**k-a**)?  
       that man-NOM Mincwun-COP-PST **K<sub>v</sub>-V<sub>Q</sub>** \*(**K<sub>n</sub>-V<sub>Q</sub>**)  
       ‘Was the man Mincwun?’  
   d. Ku salam-i nwu-Ø-yess-**n-o** \*(**k-o**)?  
       that man-NOM who-COP-PST-**K<sub>v</sub>-V<sub>WH</sub>** \*(**K<sub>n</sub>-V<sub>WH</sub>**)  
       ‘Who was that man?’

Consider the examples in (7), in which the past tense suffix is inserted in the copula predication. Note that unlike the sentences with the verb predicate, *-k-a* and *-k-o* are blocked from appearing and *-n-a* and *-n-o* replace them respectively in the case of copula predication. Note that K-allomorphy /k/ is determined in an unexpected way unlike in the sentences with the verb predicate, as shown in Table 1. The past suffix *-(y)ess* seems to block the expected form of K-allomorphy /k/ in the nominal predication, and the other K-allomorphy /n/ replaces this position. Nevertheless, the form of V-allomorphy is consistent depending on the type of questions.

Another environment that forces the transformation of K-allomorphy on the complementizers is the volitive modal suffix *-keyss*. This suffix (glossed VOL, as it also marks volitive mood) indicates the speaker’s evaluation of the truth of a proposition and delivers conjecture or possibility meaning. The conjectural interrogative based on the suffix *-keyss* confirms the speaker’s evaluation based on observation of some evidence. First, the sentences with verbal predication as in (8-a) and (8-b) show that *-n-a* and *-n-o* appear at the end of the clause depending on whether it is a content question or a polarity question, respectively.

- (8) a. Minci-ka chayk-ul ilk-keyss-**n-a**?  
       Minci-NOM book-ACC read-VOL-**K<sub>v</sub>-V<sub>Q</sub>**  
       ‘Do you think that Minci read a book?’  
   b. Minci-ka mwusun chayk-ul ilk-keyss-**n-o**?  
       Minci-NOM which book-ACC read-VOL-**K<sub>v</sub>-V<sub>Q</sub>**  
       ‘Which book do you think that Minci will read?’  
   c. Ce salam-i Mincwun-i-keyss-**n-a** \*(**k-a**)?  
       that man-NOM Mincwun-COP-VOL-**K<sub>v</sub>-V<sub>Q</sub>** \*(**K<sub>n</sub>-V<sub>Q</sub>**)  
       ‘Do you think that the man is Mincwun?’  
   d. ku salam-i nwu-Ø-keyss-**n-o** \*(**k-o**)?  
       that man-NOM who-COP-VOL-**K<sub>v</sub>-V<sub>WH</sub>** \*(**K<sub>n</sub>-V<sub>WH</sub>**)  
       ‘Who do you think that man is?’

In the examples from (8-c) to (8-d), the same pattern is observed as the examples with past tense suffix. In the case of copula predications, the volitive suffix functions as a blocker of K-

allomorphy /k/ (*-k-a* and *-k-o*) and replaces them *-n-a* and *-n-o*. In this phenomenon, however, the volitive modality does not affect to V-allomorphy.

Lastly, the examples in the evidential modal constructions follow. The observational evidential modality *-te* denotes the speaker's prior sensory, typically visual, observation of the past event, or the speaker's direct observation of the event extended now (Lee, 2010). The clause with evidential modality leads to direct evidential reading, even it is lack of past tense suffix.

- (9) a. Minci-ka chayk-lul ilk-te-**n-a**?  
 Minci-NOM book-ACC read-EVI-**Kv-V<sub>Q</sub>**  
 'Do you remember that Minci was reading a book?'  
 b. Minci-ka mwusun chayk-ul ilk-te-**n-o**?  
 Minci-NOM which book-ACC read-EVI-**Kv-V<sub>WH</sub>**  
 'Do you remember that which book Minci was reading?'  
 c. Ce salam-i Mincwun-i-te-**n-a** **\*(k-a)**?  
 that man-NOM Mincwun-COP-EVI-**Kv-V<sub>Q</sub>** **\*(Kn-V<sub>Q</sub>)**  
 'Do you remember that the man is Mincwun?'  
 d. ku salam-i nwu-Ø-te-**n-o** **\*(k-o)**?  
 that man-NOM who-COP-EVI-**Kv-V<sub>WH</sub>** **\*(Kn-V<sub>WH</sub>)**  
 'Do you remember Who that man is?'

Likewise, the evidential affix *-te* does not affect verbal predication clauses, and only examples in (9-c) and (9-d) fall into the puzzling cases. The complementizers *-k-a* and *-k-o*, which are related to agree with the copula clause have been blocked asymmetrically from appearing in the case of inserting past tense, volitive, and evidential modal suffixes. The analogous pattern is observed that although K-allomorphy /k/ is replaced by /n/, there have been no cases that K-allomorphy is replaced by another V-allomorphy. In following sections, we will explore the inverse unexpected case of phenomenon where K-allomorphy /n/ is blocked and replaced by /k/.

### 2.3 Puzzling case 2 (*-n* → *-k*)

In BK, the future tense is marked with the nominalizer *-ke*,<sup>2</sup> which is used to nominalize a proposition. Note that the future forms are built with the copula plus a nominalized form of the verbal predicate as described in (10).

- (10) Verb-PST-VOL-EVI-IRR-NMZ

Consider the following future form of the verbal predication in (11).

- (11) a. Ni-ka pap-ul mwuk-ul-ke-**k-a** **\*(n-a)**  
 you-NOM meal-ACC eat-IRR-NMZ-**Kn-V<sub>Q</sub>** **\*(Kv-V<sub>Q</sub>)**  
 'Will you have a meal?'

<sup>2</sup> It is assumed that embedded clauses preceding *ke(s)* can be classified into two types: relative clauses and nominal complement clauses. These clauses end in the verbal suffixes such as *—(n)un* or *—(u)l*. These verbal suffixes, occurring in relative clauses or nominal complement clauses, are called "adnominal" suffixes (Sohn 1999).

- b. Ni-ka      mwe-lul      mwuk-ul-ke-**k-o** **\*(n-o)**  
     you-NOM what-ACC eat-IRR-NMZ-**Kn-V<sub>WH</sub>** **\*(Kv-V<sub>WH</sub>)**  
     ‘What will you eat?’

It should be noted that the complementizers *-n-a* and *-n-o* are blocked when the clauses with verb predication are nominalized. The nominalizer *-ke* blocks the complementizer /k/, which agrees with the verb predication, and it implies that the categorial feature of predication brings about the difference in complementizer.

In an embedded clause containing a polarity or *wh*-question, an irrealis suffix *-nun* ~ *-n* precedes the complementizer. In the example (12), however, the unexpected complementizer *-ka* and *-ko* appear rather than *-na* and *-no* respectively:

- (12) a. Cinswu-ka    [ni    hakkyo-e    ka-nun-Ø-**k-a** **\*(n-a)**]      mwul-ess-ta.  
     Cinswu-NOM [you school-LOC go-IRR-NMZ-**Kn-VQ** **\*(Kv-VQ)**] ask-PST-DECL  
     ‘Cinswu asked (me) whether you were going to school.’  
     b. Cinswu-ka    [ni    eti    ka-nun-Ø-**k-o** **\*(n-o)**]      mwul-ess-ta.  
     Cinswu-NOM [you where go-IRR-NMZ-**Kn-V<sub>WH</sub>** **\*(Kv-V<sub>WH</sub>)**] ask-PST-DECL  
     ‘Cinswu asked (me) where you were going.’  
     c. Cisu-ka    [Minsu-ka    haksayng-i-n-**k-a**]      kwungkumhay-hay-ss-ta.  
     Cisu-NOM [Minsu-NOM student-COP-IRR-NMZ-**Kn-VQ**] wonder-*v*-PST-DECL.  
     ‘Cisu wondered if Minsu was a student.’  
     d. Cisu-ka    [Minsu-ka    nwukwu-Ø-n-Ø-**k-o**]      kwungkumhay-hay-ss-ta.  
     Cisu-NOM [Minsu-NOM who-COP-IRR-NMZ-**Kn-VQ**] wonder-*v*-PST-DECL.  
     ‘Cisu wondered who Minsu was.’

However, when the embedded clauses are nominalized with the irrealis suffix *-n* inserted, it does not block K-allomorphy in the copula constructions, as shown in (12-c) and (12-d). Compared to the cases when the TAM marker is inserted, the nominalized clauses prevents K-allomorphy /n/ from appearing in the verbal predication.

### 3 The Split-CP Domain

The observation in Section 2 is that the BK interrogative complementizer is a bimorphemic complex. The K encodes interrogative Force and co-varies with the lexical category of the predicate and the V co-varies with the type of question: polarity versus content. This forces the conclusion that an Agree relation holds between K and the categorial feature of the predicate (See Rezac, 2004, for a similar phenomenon in Breton.<sup>3</sup>) K and V are present only in questions, and V indicates the kind of question. We capture this with the following lexical entries and the following Vocabulary Items ( $\delta$  = categorial feature).

<sup>3</sup> Rezac (2004) investigates the pre-verbal position of Breton V2 clauses and proposes a categorial feature  $\delta$  to encode the syntactic category of [Spec, TP]. It is analyzed that the identity of feature on the [Spec, TP] can be established from a convergence of two properties. First, the closest syntactic object in the c-command domain of T is relevant, regardless of its properties: Case,  $\phi$ -features, and syntactic category. Secondly, since this morpheme R is syntactically dependent, it should be results from the Agree operation (Chomsky 2000).

Table 2. The Lexical Entry and Vocabulary Item

Lexical Entry	K [ <i>i</i> Q, <i>u</i> δ: ])	V [ <i>uwh</i> ]
Vocabulary Item	/k/ ↔ [Q, δ: <i>n</i> ]	/o/ ↔ [wh]
	/n/ ↔ [Q, δ: <i>v</i> ]	/a/ ↔ elsewhere

We assume that K and V are distinct probes in the C layer on Int and Force, respectively (Rizzi, 1997, 2001). Recall that K appears in questions only, so must be specified as [*i*Q]. V, which distinguishes the types of question, is specified as [*uwh*]. In the core cases K probes for the closest lexical category and is assigned the value either *n* or *v*, giving rise to the forms above. When it comes to Agree operation, note that the Agree relation is established with the closest element. K should be able to see the categorical features on the closest predicate. When lexical insertion takes place, V preferentially agrees with a *wh*-feature, and realizes as /o/. However, if no *wh*-feature is found, Agree fails (in the sense of Preminger, 2014), and [*uwh*] is deleted.

## 4 Analysis

### 4.1 Agreement on [wh] Feature

Adopting the failed agreement approach (Preminger, 2014), it is possible to account for the Agreement of V-allomorph with the type of question. The probe-goal operation is formalized in (13):

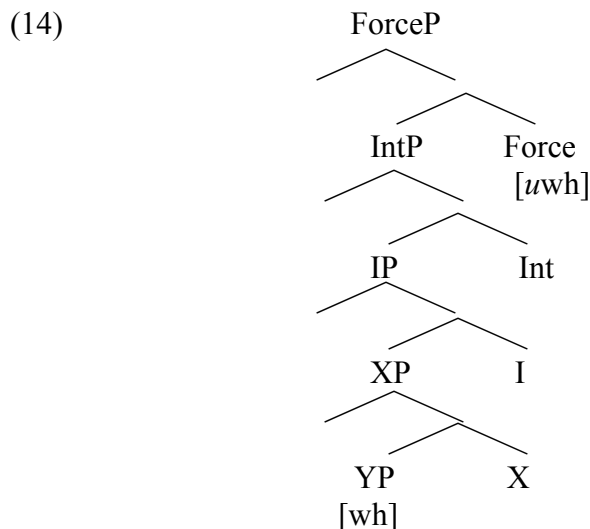
- (13) FIND (*f*)<sup>4</sup>:  
 given an unvalued feature *f* on a head  $H^0$ , find an XP bearing a valued of *f*, and  
 assign that value to  $H^0$   
 (Preminger 2014: 95)

Now recall that the Force head in BK has [*uwh*] feature. When  $\text{Int}^0$  and  $\text{Force}^0$  are merged, they trigger obligatory invocation of the operation in (13), namely find ([*uwh*]). In this model, if nothing in the derivation carries valued [*uwh*] features, then find ([*uwh*]) will simply fail and this uninterpretable feature is deleted before spell-out. This is the case where the XP such as the grammatical subject, object and adjunct is a *wh*-phrase or *wh*-adverb carrying interpretable [*uwh*] feature.

The probe on Force head seeks [*uwh*] feature downwards by the operation find ([*uwh*]). When it finds its instance of feature from the corresponding goal *wh*-element it checks the uninterpretable feature and is deleted before Spell-Out.

<sup>4</sup> Preminger (2014) argues that find (*f*) differs in two important aspects: first, it operation is invoked obligatorily and second, it would be allowed to fail, with no adverse effects on the derivation (recall that in Chomsky's model, the obligatoriness of *Agree* is derivative, and nature of *uninterpretable feature* induces crash as a side-effect)

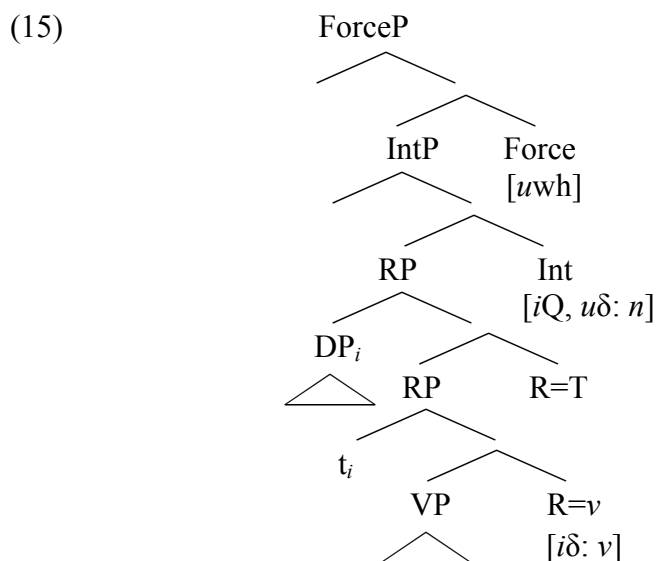




On the contrary, when the  $[uwh]$  probe on Force head scans the targeted XP, but none of them contains the proper feature, then Agree fails. This failed agreement does not give rise to ill-formedness, nor assigns any ungrammaticality status; the derivation simply continues unhindered and the feature  $[uwh]$  is simply deleted.

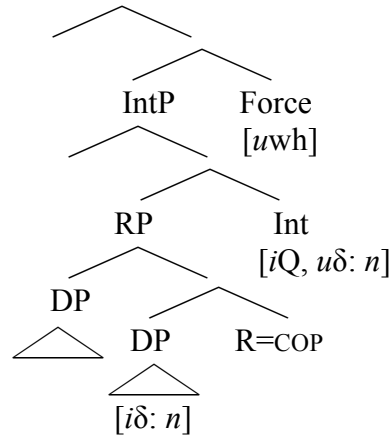
## 4.2 Agreement on Categorical Feature $[\delta]$

The Int head in BK has unvalued and uninterpretable categorical feature  $[u\delta]$ , as well as interpretable  $[iQ]$  feature. When RP and  $\text{Int}^0$  are merged, the obligatory operation, namely find  $([u\delta])$ , is triggered. In this model, this is the case where the probe searches its goal from which the value of  $[u\delta]$  is assigned. Here are the derivations for the verbal predication:



The probe on Int head is invoked to search  $[\delta]$  feature downwards by the operation find  $([u\delta])$ , and is assigned the corresponding value  $[u\delta: v]$ , as in the configurations (15).





In the same way, a probe in Int head finds a goal having its corresponding feature set to derive for the non-verbal predication. The value of categorial feature, which is nominal  $[u\delta: n]$ , on the complement of copula construction is assigned to the Int head.

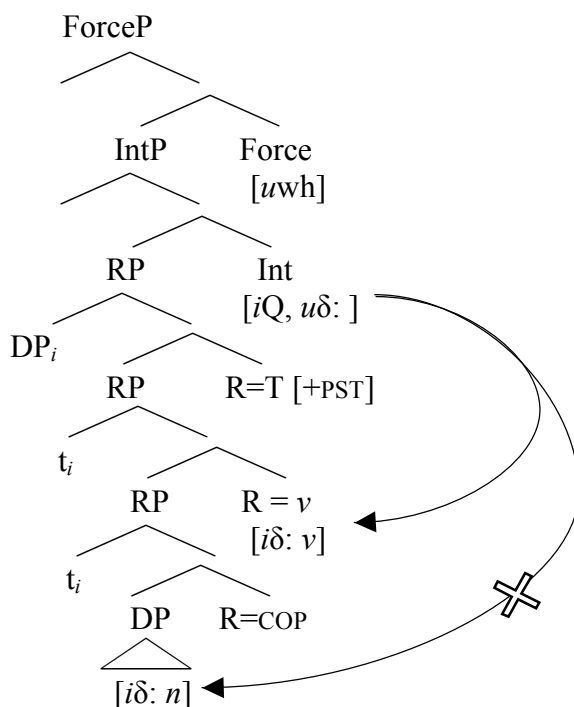
### 4.3 The Account for the Puzzling Cases

Recall that three copula constructions in the past tense, volitive and evidential modality give rise to verbal agreement on the complementizer. We argue that overt tense marking requires an (phonologically null) active  $v$  for T and Mod to be licensed. We assume an active (but non-agentive)  $v$  appears when Tense or Modal markers are inserted in copular constructions. When K probes for a categorial feature, it finds the little  $v$  which is assumed to be activated so that T or Mod is successfully licensed. In other words, the  $v$  projection<sup>5</sup> above the Relator phrase when the TAM marker is inserted between RP and IntP.

According to Chomsky (2001), the Agree operation occurs when an uninterpretable feature finds a corresponding interpretable feature in the c-commanding node. Due to the minimality condition, the probe containing uninterpretable  $\delta$  feature on the Int head agrees with the goals in the closest c-commanding domain. The node valued  $[i\delta: v]$  on the light  $v$  head is much closer than the R head valued  $[i\delta: n]$  so the uninterpretable feature will be valued  $[u\delta: v]$  and realized as  $/n/$ , as illustrated in (17):

<sup>5</sup> Note that in Laz it is possible to use a causative suffix, which fills up the  $v$  head in the structure. The causative suffix is used to causativize intransitives and also surfaces in impersonal passives derived from unergatives.

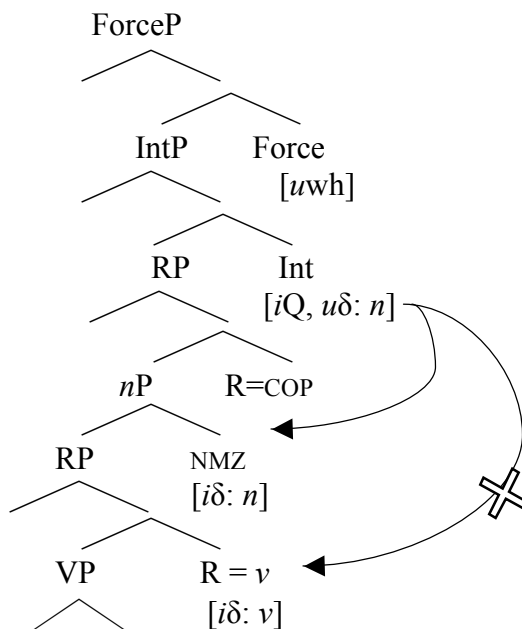
(17)



In the cases which block the expected K-allomorphy in the nominalized clause, when K probes for a categorial feature, it finds the nominal feature, which is activated by a nominalizer *-ke*. Under the locality condition, the probe which is uninterpretable  $\delta$  feature on the Int head agrees with the closest feature with the value  $[u\delta:n]$ , since it is much closer than the R head valued  $[u\delta:v]$  so the uninterpretable feature will be valued  $[u\delta:n]$  and realized as /k/, as illustrated in (18):

Note that the ungrammatical variants of (11)-(12), are ruled out since it is not a possible

(18)



derivational sequence allowed by the grammar where find ( $[u\delta]$ ) is invoked. It is an important

point that it is not an offending element or a diacritic that yields ungrammaticality of the sentences, but it is an ill-formed derivation that leads to this structure which does not obey the minimality condition.

As we see above, this  $\delta$ -agreement has the following orders: (i) the unvalued instance of  $[u\delta]$  on the Int head probes for a valued one to receive a value in the closest c-commanding domain, (ii) the interpretable instance of  $\delta$  is matched and valued as either nominal or verbal to an uninterpretable instance. As with the  $[uwh]$ -agreement, applying ‘Agreement-driving’ principles of Preminger (2014) derives a well-formedness structure under minimality condition

In this Section, we have provided a unified account for the phenomenon of complementizer agreement in BK interrogatives by a general computational probe-goal approach in the sense of Preminger (2014). We propose a CP domain to be split so that the two distinct probes in Int and Force are posited on the left periphery of BK interrogatives. It helps account for the various forms of K- and V-allomorphy of interrogative complementizers in BK. V-allomorph agreement indicates the type of question, whereas the categorial feature agreement is invoked by the closest syntactic category of the predication under locality condition. Given the list of vocabulary items, the corresponding phonological strings are inserted node by node after the spell-out.

## 5 Concluding Remarks

In this paper, we have investigated the complementizer agreement in BK interrogatives. Observing that the form of allomorph is determined by (i) the categorial feature of the predicate and (ii) the type of question (polar vs. content), we argue that allomorphy consists of bimorphemic complex (K-V). We propose that the left periphery of BK interrogative clauses contains a split CP domain in the sense of Rizzi (1997, 2001). To be specific, the puzzling case of K-allomorphy gives us an evidence that supports the allomorphy conditioned by the closest categorial feature. Our analysis provides an account of the allomorphy of the interrogative complementizer, including unexpected cases of allomorphy. Allomorphy based on categorial feature is typologically quite rare, so this study adds important empirical data to the discussion on agreement in generative grammar.

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