

Phrasal structure in Khoekhoe: puzzles from focus movement

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1. Introduction

The term Khoekhoe refers to a cluster of non-Kalahari Khoe languages primarily spoken in Namibia and adjacent parts of Botswana and South Africa at present. Varieties of Khoekhoe ranged from Cape Town to Southern Angola historically. Namibian Khoekhoe (Nama-Damara) is the national language of Namibia which consists of two closely related varieties – Nama and Damara with over 200,000 speakers. Other varieties of Khoekhoe include the now extinct and moribund Eini, !Ora, and Cape Khoekhoe, and Hai||om which has about 16,000 to 18,000 speakers in Northwestern Namibia (Vossen 2013: 67 – 68). The goal of this paper is twofold: to provide an in-depth description of the nominal projection of Nama-Damara, including the PGN markers, case marking, and nominal modifiers; and to discuss the patterns of focus extraction to the left periphery in Khoekhoe and three possible analysis each with its issues.

2. Nominal projections in Khoekhoe

2.1 Person-Gender-Number (PGN) markers

Person-Gender-Number (PGN) markers are enclitics that encode a bundle of phi-features in Khoe-Kwadi languages. All nominal categories must take at least one PGN marker in Khoekhoe which sets it apart from all other Khoe-Kwadi languages where PGN markers are all optional to some degree.

Pronouns in Khoekhoe are composed of an NP stem which only marks the person feature followed by a corresponding PGN marker. For example, the third-person masculine pronouns is composed of the third person stem $\text{!}\tilde{\text{r}}$ and the third person masculine singular PGN marker $-p$:

- (1) $\text{!}\tilde{\text{r}}-p$
 3-3MS
 ‘he’

Most PGN markers are fully specified in their phi-features with the exception of first person singular where gender is not distinguished, and in duals where feminine and common PGN markers share the same form¹. The second and third person feminine singular PGN markers are also identical in form. In contrast, the pronoun stems in Khoekhoe only code for the person feature and the second person and first person non-singular inclusive stems are identical in form.

¹ According to Muntzner (2022), PGN markers in Nama distinguish between dual third person feminine $-ra$ and dual third person common $-re$, which seems to indicate a merge between these two forms has merged in Damara.

The full paradigm of pronoun stems and PGN markers in Khoekhoe is given below in (2):

(2) ***The inventory of PGN markers in Khoekhoe:***

Person/Number		Masculine	Feminine	Common
3	SG	-p/i ²	-s	-ʔi
	DU	-kha	-ra	
	PL	-ku	-ti	-n
2	SG	-ts	-s	n/a
	DU	-kho	-ro	
	PL	-ko	-so	-tu
1	SG	-tá		n/a
	DU	-kham	-m	
	PL	-ke	-se	-tà

The inventory of pronoun stems:

- First person singular: *ti*
- First person dual and plural, inclusive: *saa*
- First person dual and plural, exclusive: *sii*
- Second person: *saa*
- Third person: ʔi

All nouns in Khoekhoe must take at least one PGN marker and the gender is assigned lexically even for animate nouns. However, it is possible to alter the gender of the PGN markers on animate nouns to indicate a difference in biological sex:

- (3) a. ʔari-p
dog-3MS
'(male) dog'
- b. ʔari-s
dog-3FS
'female dog'

The common (which is also referred to as neuter) gender is never assigned lexically but can be used when the gender of the referent is unclear or unknown. In cases where a non-singular referent contains individuals of mixed genders, both the feminine and the common PGN markers can be used.

² /i/ occurs with nasal-final masculine nouns, notice that it is different from the common marker /ʔi/ which includes a glottal stop.

The lexical assignment of PGN markers is entirely arbitrary, but some noun stems can take PGN markers of either gender leading to different meanings:

- (4)
- | | | |
|----|---|---------------------|
| a. | #hani-s
book-3FS
'book/letter' | (Muntzner 2022: 30) |
| b. | #hani-p
book-3MS
'a sheet of paper' | (Muntzner 2022: 30) |
| c. | ʔama- ao-s
buy-building-3FS
'Corner store' | |
| d. | ʔama- ao-p
buy-building-3MS
'Supermarket' | |

The assignment of non-canonical gender to even inanimate noun is still highly productive and can be leveraged for novel language use:

- (5)
- | | | |
|----|---|---------------------|
| a. | mũũ-tì
eye-3FP
'eyes' | (Muntzner 2022: 30) |
| b. | mũũ-kù
eye-3MP
'(big) eyes/eyes that are widened in astonishment' | (Muntzner 2022: 30) |
| c. | am-s
mouth-3FS
'mouth' | (Muntzner 2022: 31) |
| d. | am-i
mouth-3MS
'(big ugly) mouth' | (Muntzner 2022: 31) |
| e. | ʔao-p
man-3MS
'man' | |
| f. | ʔao-s
man-3FS
'man who talks a lot (like a woman)' | |

In (5a), *eyes* are assigned their canonical feminine gender. When the same noun takes a masculine PGN marker in (5b), it leads to the interpretation that these eyes are big, and thus they likely have been widened due to astonishment. Similarly, when *mouth* is assigned the non-canonical masculine gender, it

is interpreted to be big and implied to be rough and ugly. The interpretation of (5f) where *man* takes a non-canonical feminine PGN marker is made possible by the salient gender stereotype that women tend to talk more than men.

2.2 Nominal modifiers

Adjective. Nominal modifiers in Khoekhoe can occur both prenominally or postnominally:

- (6)
- a. gai |apa #hani-s
 big red book-3FS
 ‘big red book’
 - b. |apa gai #hani-s
 red big book-3FS
 ‘big red book’
 - c. #hani-s gai |apa=*(s)
 book-3FS big red=3FS
 ‘big red book’
 - d. #hani-s |apa gai=*(s)
 book-3FS red big=3FS
 ‘big red book’

An additional PGN marker must be inserted at the right edge of the nominal phrase when adjectival modifiers occur postnominally. PGN markers cannot be inserted before the head noun as shown by (7):

- (7)
- | | | |
|----------------|-----------|----------|
| gai=*(s) | apas=*(s) | #hani-s |
| big=3FS | red=3FS | book-3FS |
| ‘big red book’ | | |

Adjectival modifiers can occur on both sides of the head noun simultaneously as shown by (8):

- (8)
- | | |
|-------------------|---------|
| gai #hani-s | apa=s |
| big book-3FS | red=3FS |
| ‘big red book’ | |

When multiple adjectival modifiers occur postnominally, each of the modifiers can be marked with their own PGN marker, as long as a PGN marker occurs at the rightmost edge of the entire nominal phrase:

- (9)
- | | | |
|----------------|---------|----------|
| #hani-s | gai=(s) | apa=*(s) |
| book-3FS | big=3FS | red=3FS |
| ‘big red book’ | | |

Numbers. Numeral modifiers in Khoekhoe pattern exactly like other types of adjectival modifiers:

- (10)
- a. |am gai |apa #hani-ra
 two big red book-3FD
 ‘two big red books’
 - b. gai |am |apa #hani-ra
 big two red book-3FD
 ‘two big red books’

- c. gai |apa |am #hani-ra
 big red two book-3FD
 ‘two big red books’
- d. gai #hani-ra |am=(ra) |apa=*(ra)
 big book-3FD two=3FD red=3FD
 ‘two big red books’
- e. gai #hani-ra |apa=(ra) |am=*(ra)
 big book-3FD red=3FD two=3FD
 ‘two big red books’

Possession structures. Nominal possession structures in Khoekhoe show an interesting three-way contrast where the possessor phrase can be introduced either pre or postnominally just like other nominal modifiers as in (11):

- (11) a. ?ao-p di #hani-s
 man-3MS POSS book-3FS
 ‘the man’s book’
- b. ?ao-p #hani-s
 man-3MS book-3FS
 ‘the man’s book’
- c. #hani-s ?ao-p di=*(s)
 book-3FS man-3MS POSS=3FS
 ‘the man’s book’
- d. #hani-s ?ao-p
 book-3FS man-3MS
 * ‘the man’s book’

Unlike adjectives and numbers, possessor phrases must occur as the leftmost element when they occur prenominally as shown by (12):

- (12) a. ?ao-p (di) gai |apa #hani-s
 man-3MS POSS big red book-3FS
 ‘the man’s big red book’
- b. gai |apa ?ao-p (di) #hani-s
 big red man-3MS POSS book-3FS
 * ‘the man’s big red book’
 ‘the big red man’s book’

PGN markers must be inserted after postnominal possessors even if the possessor is not in the rightmost position within the nominal phrase as shown by (13b):

- (13) a. #hani-s gai=(s) |apa=(s) ?ao-p *(di)=*(s)
 book-3FS big=3FS red=3FS man-3MS POSS=3FS
 ‘the man’s big red book’

- b. #hani-s ?ao-p *(di)=??(s) gai=(s) |apa=*(s)
 book-3FS man-3MS POSS=3FS big=3FS red=3FS
 ‘the man’s big red book’

Demonstratives. Although demonstratives can also occur both pre and postnominally, their placement within nominal phrases is more constrained when compared to adjectives and numbers. Prenominally demonstratives must occur as the leftmost element:

- (14) a. nee gai |apa #hani-s
 DEM big red book-3FS
 ‘this big red book’
- b. *gai nee |apa #hani-s
 big DEM red book-3FS
 ‘this big red book’
- c. *gai |apa nee #hani-s
 big red DEM book-3FS
 ‘this big red book’

Postnominal demonstratives must occur as the first element in a string of modifiers to the left of any PGN markers that are inserted after the head noun as shown by (15b) and (15c):

- (15) a. #hani-s nee gai |apa=s
 book-3FS DEM big red=3FS
 ‘this big red book’
- b. #hani-s gai=*(s) nee |apa=s
 book-3FS big=3FS DEM red=3FS
 ‘this big red book’
- c. #hani-s gai |apa=*(s) nee=s
 book-3FS big red=3FS DEM=3FS
 ‘this big red book’

Interestingly, like many other languages such as English (e.g. **his this book/*this his book*), possessors and demonstratives cannot both occur prenominally in Khoekhoe as shown by (16):

- (16) a. *nee ?ao-p (di) #hani-s
 DEM man-3MS POSS book-3FS
 ‘this book of the man’
- b. *?ao-p (di) nee #hani-s
 man-3MS POSS DEM book-3FS
 ‘this book of the man’

Possessors and demonstratives can simultaneously occur in the same nominal phrase when they occur on separate sides of the head noun as in (17):

- (17) a. nee #hani-s ?ao-p di=s
 DEM book-3FS man-3MS POSS=3FS
 ‘this book of the man’
- b. ?ao-p (di) #hani-s nee=s
 man-3MS POSS book-3FS DEM=3FS
 ‘this book of the man’

When possessors and demonstratives occur postnominally, they must each receive their own PGN marker and the adjectives and numbers can occur in between demonstratives and the PGN markers:

- (18) a. #hani-s nee gai |apa=*(s) ?ao-p *(di)=*(s)
 book-3FS DEM big red=3FS man-3MS POSS=3FS
 ‘this big red book of the man’
- b. #hani-s ?ao-p *(di)=*(s) nee gai |apa=*(s)
 book-3FS man-3MS POSS=3FS DEM big red=3FS
 ‘this big red book of the man’

When serving as nominal modifiers, postpositional phrase patterns differently from all other modifiers which seems to indicate they are merged at a higher structural position. For example, prenominal PP modifiers must precede all other modifiers including demonstratives as shown by (19):

- (19) #hani||au-s=!na nee gai |apa #hani-s
 library-3FS=in DEM big red book-3FS
 ‘this big red book in the library’

Postnominal PP modifiers usually occur as the rightmost element in nominal phrases, but unlike other nominal modifiers, PGN markers are optional on them as shown by (20):

- (20) gai |apa #hani-s ?ao-p di=s kao-p=xa=(s)
 big red book-3FS man-3MS POSS=3FS king-3MS=about=3FS
 ‘The man’s big red book about the king’

Although it is possible to insert postnominal PPs in a position that precedes other nominal modifiers, they are marked by noticeable intonational breaks indicated by commas in (21), which might suggest these postpositional phrases introduced as appositives:

- (21) gai |apa #hani-s, kao-p=xa=?(s), ?ao-p di=s
 big red book-3FS king-3MS=about=3FS man-3MS POSS=3FS
 ‘The man’s big red book about the king’

Extraction patterns offer further support for the idea that PPs are introduced at a higher structural level from all other nominal modifiers as they pattern differently, which is a point we will return to later.

2.3 Relative clauses

Relative clauses in Damara can occur both pre and postnominally³ just like other nominal modifiers; and similar to the situation of possessor phrases, a PGN marker must be inserted after any postnominal relative clauses:

- (22) a. tara-s ko khom?ai #hani-s
 woman-3FS PST read book-3FS
 ‘the book the woman read’
- b. #hani-s tara-s ko khom?ai=*(s)
 book-3FS woman-3FS PST read=3FS
 ‘the book the woman read’

The same is true for relativized subjects as shown in (23):

- (23) a. #hani-s=a ko khom?ai tara-s
 book-3FS=OBL PST read=3FS woman-3FS
 ‘the woman who read the book’
- b. tara-s #hani-s=a ko khom?ai=s
 woman-3FS book-3FS=OBL PST read=3FS
 ‘the woman who read the book’

Postpositions are deleted when the nouns they attached to are relativized as shown in (24):

- (24) a. #hani||au-s Mutanis ko #hani-s=a khom?ai=s
 library-3FS Mutanis PST book-3FS=OBL read=3FS
 ‘the library where Mutanis read the book.’
- b. Mutanis ko #hani-s=a khom?ai #hani||au-s
 Mutanis PST book-3FS=OBL read=3FS library-3FS
 ‘the library where Mutanis read the book.’

2.4 Incorporation

Direct objects in Khoekhoe can be incorporated, and incorporated objects do not receive PGN markers or case marking and the entire nominal phrase will be assigned the feminine gender by default after incorporation takes place:

- (25) #hani-||?ama-s
 book-buy-3FS
 ‘book buying’

Adjectival modifiers can be incorporated alongside direct objects; however, in these cases, they must occur preminally as indicated by the ungrammaticality of (26b):

³ Muntzner (2022) provides an in-depth discussion and analysis of relative clauses for Nama speakers, where an optional overt relativizer head has been observed for postnominal relative clauses. Although these sentences are deemed to be acceptable for my speaker who is Damara, they have not produced any example containing this relativizer head.

- (26) a. |apa #hani-||?ama-s
 red book-buy-3FS
 ‘the buying of red books’
 # ‘the red buying of books’
- b. * #hani-|apa-||?ama-s
 book-red-buy-3FS
 ‘the buying of red books’

Interestingly, the ordering of adjectives relative to each other is fixed when they modify incorporated direct objects:

- (27) a. gai |apa #hani-||?ama-s
 big red book-buy-3FS
 ‘the buying of big red books’
 ‘the big buying of red books’
 # ‘the big red buying of books’
- b. |apa gai #hani-||?ama-s
 red big book-buy-3FS
 * ‘the buying of big red books’
 # ‘the red buying of big books’
 # ‘the big red buying of books’

Unlike adjectives, demonstratives, possessors and postpositional phrases cannot be incorporated alongside direct objects as shown by the acceptable readings for phrases in (28):

- (28) a. nee #hani-||?ama-s
 DEM book-buy-3FS
 ‘this buying of books’
 ?? ‘the buying of this book’
- b. |ĩ-p (di) #hani-||?ama-s
 3SG-3MS POSS book-buy-3FS
 ‘his buying of books’
 ?? ‘the buying of his books’
- b. #hani||au-s=!na #hani-||?ama-s
 library-3FS=in book-buy-3FS
 ‘the buying of books taking place in the library’
 ?? ‘the buying of books that are in the library’

These facts taken together suggest that adjectival modifiers, unlike other nominal modifiers, can be introduced at a structural level that is lower than the PGN marker, allowing them to be incorporated alongside the PGN-less direct objects.

2.5 Case marking

Morphological case in Khoekhoe espouses a two-way distinction where nouns can either be unmarked or marked with an oblique case clitic *-à*. In either case, the case morphology is obligatory, and oblique

nouns seem to be the default while unmarked nouns only occur under a limited set of conditions. Namely, zero-marking can only occur on subjects in clause-initial positions in declarative sentences as in (29a) or on complements for some postpositions as in (29b):

- (29) a. matabap=(*a) ke #hani-s=a ko khom?ai
 Matabap=OBL DECL book-3FS=OBL PST read
 ‘Matabap read a book.’
- b. Namibia-p=(*a)=!na
 Namibia-3MS=OBL=in
 ‘in Namibia’

This contrasts with non-clause-initial subjects in declarative sentences (30a), subjects in both *wh* and polar questions (30b, c) and complements of some post positions (30d), which all must receive the oblique case marker instead:

- (30) a. #hani-s=a=p ke matabap=*(a) ko khom?ai
 book-3FS=OBL=3MS DECL Matabap=OBL PST read
 ‘Matabap read a book.’
- b. Matabap=*(a) tare=?e⁴ ko ||?ama
 Matabap=OBL what=3CS.OBL PST buy
 ‘What did Matabap buy?’
- c. Matabap=*(a) #hani-s=a ko ||?ama
 Matabap=OB book-3FS=OBL PST buy
 ‘Did Matabap buy a book?’
- d. #hani||au-s=*(a)=xu
 library-3FS=OBL=from
 ‘from the library’

Muntzner (2022) proposes that zero-marking is a structural case while the oblique case marker *-à* is an intrinsic case that surfaces on all nominals that have not been checked for case via other mechanisms. Under this analysis, complementizers assign the unmarked structural case to subjects in declarative when they occur clause-initially, presumably as specifiers of C° . And any C° with a [+Q] feature is taken to be defective and unable to assign case, which accounts for the fact that clause-initial subjects in interrogatives still receive the oblique case. As for postpositions, whether their complements receive zero-marking or are assigned as oblique is lexically specified and idiosyncratic.

However, there still needs to be an explanation for why declarative C° in Khoekhoe only assigns structural case to subjects and only when subjects are in its specifier. Muntzner (2022) argues that a set of probes are bundled on C° in Khoekhoe, and these probes compete for the EPP property based on a preference hierarchy.

⁴ *-?e* is a phonological contraction of the third-person common singular PGN marker *-?i* and the oblique case marker *-à*

Muntzner (2022) also adopts the framework for valuation and interpretability from Pesetsky and Torrego (2004) where both interpretable and uninterpretable features may come valued or unvalued. Unvalued features always function as probes and only uninterpretable features must be probed and enter an agree relation with an interpretable counterpart regardless of valuation.

In declaratives, the C° contains at least two features – an interpretable and valued declarative [C_{DECL}] feature and an uninterpretable and unvalued phi-feature which must probe for and agree with the interpretable phi-feature on subjects. When there is a topic in a declarative sentence (*i.e.* a DP containing a valued but uninterpretable [TOP] feature), the C° must also contain an interpretable and unvalued [TOP] feature. The hierarchy for EPP competition on C° is proposed in (31) where the EPP property is preferentially assigned to the feature that is higher on the list:

$$(31) \quad [iTOP] >> [u\phi] >> [iC_{DECL}]$$

Subjects in Khoekhoe contain an uninterpretable and unvalued [C] feature that must probe for and agree with an interpretable [C] feature. When topics are absent in a declarative sentence, the C° lack a [$iTOP$] feature and [$u\phi$] is endowed with EPP, which then probes and moves the subject into its specifier for valuation. The assignment of the unmarked structural case then takes place as the [uC] feature probes for and agrees with the [iC_{DECL}] on C° for valuation.

On the other hand, when a topic is present in a declarative sentence, the C° is endowed with a [$iTOP$] feature with the EPP property (that it outcompetes the [$u\phi$] feature based on the preferential hierarchy), which probes for and moves the topic into its specifier instead of the subject. The [$u\phi$] still probes for the subject in its in-situ non-clause-initial position, leading to overt subject agreement on C° even if no structural case is assigned in the clause.

One remaining issue for this analysis is that the [uC] feature on the subject still needs to be valued – thus, Muntzner (2022) stipulates that [uC] AND [$uTOP$] cannot cooccur in a declarative sentence as suggested by the complementary distribution of unmarked subjects and topicalized phrases that occupy the clause-initial position. These assumptions taken together are able to account for the full range of facts for case-marking in Khoekhoe.

3. Focus extraction in Khoekhoe

3.1 An overview of Khoekhoe clausal structure

Previous literature claims that Khoekhoe, similar to German and Dutch, is an underlyingly SOV language with a topological field hosting various fronted elements (Witzlack-Makarevich 2006), and a clause-second position, to be occupied obligatorily by a finite verb in German and Dutch, and by a subject clitic in Khoekhoe (den Besten 2002):

- (32)
- | | | | | |
|----|---------------------------------------|-----------------|------------------|-----------------------|
| | <i>Prefield</i> | <i>Midfield</i> | | <i>Verbal-Complex</i> |
| a. | tara-s | ke ʎari | #hani-s=a ko | mãã=te |
| | woman-3FS | DECL yesterday | book-3FS=OBL PST | give=1SG.OBJ |
| | ‘The woman gave me a book yesterday.’ | | | |

- b. tara-s ke #hani-s=a l̥ari ko mãã=te
 woman-3FS DECL book-3FS=OBL yesterday PST give=1SG.OBJ
 ‘The woman gave me a book yesterday.’
- c. tara-s ke l̥ari ko #hani-s=a mãã=te
 woman-3FS DECL yesterday PST book-3FS=OBL give=1SG.OBJ
 ‘The woman gave me a book yesterday.’
- d. tara-s ke ko l̥ari #hani-s=a mãã=te
 woman-3FS DECL PST yesterday book-3FS=OBL give=1SG.OBJ
 ‘The woman gave me a book yesterday.’

Witzlack-Makarevich (2006) and Haacke (2006) show that prefield in Khoekhoe is in fact a topological field, where preposed elements receive focus reading, and fronting to prefield is the only available focus strategy in Khoekhoe (marking focus by intonational stress is impossible, for example):

- (33) a. **matabap** ke #hani-s=a ko k^hom?ai
 Matabap DECL book-3FS=OBL PST read
 ‘MATABAP read a book.’
- b. **#hani-s=a=p** ke matabap=a ko k^hom?ai
 book-3FS=OBL=3MS DECL Matabap=OBL PST read
 ‘Matabap read A BOOK.’
- c. **k^hom?ai=p** ke ko matabap=a #hani-s=a
 read=3MS DECL PST Matabap=OBL book-3FS=OBL
 ‘Matabap READ a book.’
- d. **kao-p=χa=p** ke matabap=a #hani-s=a ko k^hom?ai
 king-3MS=about=3MS DECL Matabap=OBL book-3FS=OBL PST read
 ‘Matabap read a book ABOUT THE KING’

3.2 Declaratives in Khoekhoe

Although the word order in midfield is relatively flexible in Khoekhoe declaratives as shown by (32), focus movements into the prefield are regulated by various stipulations. First, at most one element may occur in the prefield in Khoekhoe declaratives:

- (34) a. **l̥ari=s** kè kò #hání-s=à mãã=tè
 yesterday=3FS DECL PST book-3FS=OBL give=1SG.OBJ
 ‘She gave me a book YESTERDAY.’
- b. **mãã=tè=s** kè kò l̥ari #hání-s=à
 give=1SG.OBJ=3FS DECL PST yesterday book-3FS=OBL
 ‘She GAVE me a book yesterday.’
- c. **#hání-s=à=s** kè kò l̥ari mãã=tè
 book-3FS=OBL=3FS DECL PST yesterday give=1SG.OBJ
 ‘She GAVE me A BOOK yesterday.’

- d. * #hání-s=a mǎǎ=tè=s kè kò lǎrì
 book-3FS=OBL give=1SG.OBJ=3FS DECL PST yesterday
 ‘She GAVE me A BOOK yesterday.’

Subjects must be cliticized when the preposing of other elements occurs. In fact, subject clitics obligatorily appear in the clause-second position, in between the elements in prefield and the declarative marker:

- (35) #hani-s=a*(s) ke ko lǎrì mǎǎ-te
 Book-3FS=OBL=3FS DECL PST yesterday give=1SG.OBJ
 ‘She gave me a book yesterday.’

The ungrammaticality of (36a) and (36b) shows that no other elements may cooccur with clause-initial subjects in prefield:

- (36) a. * #hani-s=a tara-s ke ko lǎrì mǎǎ-te
 book-3FS=OBL woman-3FS DECL PST yesterday give=1SG.OBJ
 ‘The woman gave me a book yesterday.’
 b. * lǎrì tara-s ke ko #hani-s=a mǎǎ-te
 yesterday woman-3FS DECL PST book-3FS=OBL give=1SG.OBJ
 ‘The woman gave me a book yesterday.’

Interestingly, subjects in midfield must receive the oblique case marker as if it is an object:

- (37) #hani-s=a*(s) ke ko **tara-s=a** lǎrì mǎǎ-te
 Book-3FS=OBL=3FS DECL PST **woman-3FS=OBL** yesterday give=1SG.OBJ
 ‘The woman gave me a book yesterday.’

When the verbal complex is targeted for movement, no part of the complex can be stranded:

- (38) a. ŋʔaa=pi=ta ke ko
 kick=3MS.OBJ=1SG DECL PST
 ‘I kicked him.’
 b. * ŋʔaa=ta ke ko pi
 kick=1SG DECL PST 3MS.OBJ
 ‘I kicked him.’

Similarly, (38d) is ruled out because the negator has been stranded:

- c. ŋʔũũ=tama=ta ke hǎǎ
 sit=NEG=1SG DECL PFV
 ‘I am not sitting’
 d. * ŋʔũũ=ta ke hǎǎ tama
 sit=1SG DECL PFV NEG
 ‘I am not sitting’

However, no verbal elements may occur in the prefield alongside other elements:

- (42) a. * khom?ai tare=?è=p kò matabap=a?
 read what=OBL=3MS PST Matabap=OBL
 ‘WHAT did Matabap READ?’
- b. * tare=?è khom?ai=p kò matabap=a?
 what=OBL read=3MS PST Matabap=OBL
 ‘WHAT did Matabap READ?’

3.4 Polar questions in Khoekhoe

Polar questions in Khoekhoe allow any number and any combination of elements to occur in the prefield, as long as the verb is the rightmost element in prefield:

- (43) a. #hání-s=a tára-s=a=p kò llàrì mǎǎ
 book-3FS=OBL woman-3FS=OBL=3MS PST yesterday give
 ‘Did he give THE WOMAN A BOOK yesterday?’
- b. #hání-s=a tára-s=a mǎǎ=p kò llàrì
 book-3FS=OBL woman-3FS=OBL give =3MS PST yesterday
 ‘Did he GIVE THE WOMAN A BOOK yesterday’

In contrast, (44a) is ungrammatical as the verb occurs in between the direct and the indirect object, and (44b) offers further proof that the verb must remain the rightmost element when fronted to the prefield:

- (44) a. *#hání-s=a mǎǎ tára-s=a=p kò llàrì
 book-3FS=OBL give woman-3FS=OBL=3MS PST yesterday
 ‘Did he GIVE THE WOMAN A BOOK yesterday’
- b. * mǎǎ #hání-s=a tára-s=a=p kò llàrì
 give book-3FS=OBL woman-3FS=OBL=3MS PST yesterday
 ‘Did he GIVE THE WOMAN A BOOK yesterday’

3.5 Focus movements of verbal categories: head or remnant movement?

A notable issue that warrants further investigation in Khoekhoe concerning focus movement is how sentences like (45) are derived which involves the preposing of the verb while stranding the object:

- (45) khom?ai=p ke ko matabap=a #hani-s=a
 read=3MS DECL PST Matabap=OBL book-3FS=OBL
 ‘Matabap READ a book.’

On the surface, the movement in (45) only involves the verb as the direct object is forced to be stranded behind as shown by the ungrammaticality of (46):

- (46) *#hani-s=a khom?ai=p ke ko matabap=a
 book-3FS=OBL read=3MS DECL PST Matabap=OBL
 ‘Matabap READ a book.’

Ostensibly, the movement in (45) should target the same position, namely, SPEC, FocP as other instances of focus movements in Khoekhoe as the verb receives focus reading just like other phrases in that position:

- b. Das Buch gelesen hat keiner
 D book read.PTCP has nobody
 ‘Nobody has read the book.’

Moreover, the preposing of verbs in Breton is clause-bound, which strongly suggests that these movements targeting the verb obey the head movement constraint. These facts taken together seem to suggest that Breton presents a genuine case of head movement.

Scrambling is readily available in Khoekhoe, but clearly disallows the pied-piping of direct objects:

- (46) *#hani-s=a khom?ai=p ke ko matabap=a
 book-3FS=OBL read=3MS DECL PST Matabap=OBL
 ‘Matabap READ a book.’

Still, the prefield in Khoekhoe can host phrasal elements in addition to the verb head by itself. In fact, the preposing of an entire verbal category is possible:

- (54) a. #hani-s=a ko khom?ai=p ke matabap=a
 book-3FS=OBL PST read=3MS DECL Matabap=OBL
 ‘Matabap READ A BOOK.’
 b. *ko=p ke matabap=a #hani-s=a khom?ai=p
 PST=3MS DECL Matabap=OBL book-3FS=OBL read=3MS
 ‘Matabap read a book.’

Long-distance focus movements across clausal boundaries are also possible in Khoekhoe::

- (55) |uriha-p=a₁=ta ke ko mĩĩ
 bike-3MS=OBL=1sg DECL PST say
 [matabap ke t₁ ko |?ama ti]
 Matabap DECL PST buy COMP
 ‘I said that Matabap bought A BIKE.’

However, as it turns out, long-distance extraction is impossible for both adjuncts and verbal categories:

- (56) a. *|?ama₁=ta ke ko mii
 buy=1SG DECL PST say
 [matabap ke ko |uriha-p=a t₁ ti]
 Matabap DECL PST bike-3MS=OBL COMP
 ‘I said that Matabap BOUGHT a bike.’
 b. |ari=ta ke ko mii
 yesterday=1SG DECL PST say
 [matabap ke ko |uriha-p=a |?ama ti]
 Matabap DECL PST bike-3MS=OBL buy COMP
 ‘I said YESTERDAY that Matabap bought a bike’
 *‘I said that YESTERDAY Matabap bought a bike’

A similar argument-adjunct asymmetry regarding long-distance extraction has been observed by Aboh (2004) for Gungbe, a Niger-Congo language primarily spoken in Benin:

- (57) gbòjé-mè wè séná sè
 holidays-in FOC Sena hear.PERF
 dḡ hĩ-ló wè rēmí xò
 COMP knife- SPF_[+def] FOC Remi buy.PERF
 ‘Sena heard DURING THE HOLIDAYS that Remi bought THE SPECIFIC KNIFE.’
 * ‘Sena heard that DURING THE HOLIDAYS Remi bought THE SPECIFIC KNIFE.’

However, this still does not account for why (56a) has been ruled out for Khoekhoe where the verb undergoes long-distance movement, which should be available under a remnant movement analysis.

Based on the Khoekhoe facts described above, how sentences like (45) are derived remains unclear:

- (58) khom?ai=p ke ko matabap=a #hani-s=a
 read=3MS DECL PST Matabap=OBL book-3FS=OBL
 ‘Matabap READ a book.’

A possible third analysis. A growing body of literature on head movements into specifier positions (*e.g.* Harizanov 2019, Harizanov and Gribanova 2019, Arregi and Pietraszko 2018..) might provide a third possible analysis where a head is merged into a specifier position as phrases would via internal merge.

Harizanov (2019) offers Bulgarian as an empirical case where head movements target the specifier position and are formally indistinguishable from phrasal movements. Past participles in Bulgarians occur to the right of the finite auxiliary verb in its based position as in (59):

- (59) Bjah pročel knigata (Harizanov 2019)
 be.1S.PST read.PTCP the.book
 ‘I had read the book.’

Participles may also be fronted to the clause-initial position to the left of the finite auxiliary as in (60):

- (60) Pročel bjah knigata (Harizanov 2019)
 read.PTCP be.1S.PST the.book
 ‘I had read the book.’

Participle fronting may also occur across clausal boundaries similar to phrasal A’-movements. For example, in (61), the embedded participle is fronted to the left edge of the matrix clause:

- (61) Zagazil može da e (Harizanov 2019)
 gotten.in.trouble might DA be.3S.PRS
 ‘He might’ve gotten into trouble.’

Harizanov (2019) then argues against a possible remnant movement analysis by pointing out that the VP-internal elements stranded by participle fronting cannot move out of the VP and nor could they be pied-piped:

- (62) a. Bjaha videli Marija pijana (Harizanov 2019)
 be.3P.PST see.PTCP Maria drunk
 ‘They had seen Maria drunk.’

- b. * Bjaha Marija videli pijana
 be.3P.PST Maria see.PTCP drunk
 ‘They had seen Maria drunk.’
- c. * Razkazvala тази istorija beše često Marija
 tell.PTCP this story be.3S.PST often Maria
 ‘Maria had often told this story.’

Two arguments are given for why participle fronting targets a specifier position in the left periphery.

First, as shown in (63), the fronted participle must be adjacent to the finite auxiliary and no element may intervene, suggesting that they are in a spec-head relationship:

- (63) Čela (*vinagi) beše ljubovni istorii (Harizanov 2019)
 read always be.3S.PST love stories
 ‘She has (always) read love stories.’

Participle fronting is unavailable if the position to the left of the auxiliary is occupied by other elements:

- (64) a. Kāde beše pročel Georgi knigata? (Harizanov 2019)
 where be.3S.PST read.PTCP Georgi the.book
 ‘Where had Georgi read the book?’
- b. * Pročel kāde beše Georgi knigata?
 read.PTCP where be.3S.PST Georgi the.book
 ‘Where had Georgi read the book?’
- c. * Kāde pročel beše Georgi knigata?
 where read.PTCP be.3S.PST Georgi the.book
 ‘Where had Georgi read the book?’

This is straightforwardly predicted if participle fronting is analyzed as an instance of internal merge attempting to move the phrasal head into a specifier position that has already been occupied by the wh-phrase.

Back to Khoekhoe. Under this analysis, the Khoekhoe facts can be simply stated as such: focus movements motivated by a focus feature could either target a phrasal head or an entire phrase and there is no need to posit any movement of incomplete categories.

There are some evidence to support this generalization when attempting to extract from nominal categories:

- (65) a. ti-ta ke #hani-s gai |apa=s=a ko xua
 1SG-1SG DECL book-3FS big red=3FS=OBL PST write
 ‘I wrote a big red book.’
- b. * gai=ta ke #hani-s |apa=s=a ko xua
 big=1SG DECL book-3FS red=3FS=OBL PST write
 ‘I wrote a BIG red book.’

- c. * gai |apa=(s=a)=ta ke #hani-s=(a) ko xua
big red=3FS=OBL=1SG DECL book-3FS=OBL PST write
'I wrote a BIG RED book.'
- d. * #hani-s |apa=s=a=ta ke gai=(s=a) ko xua
book-3FS red=3FS=OBL=1SG DECL big=3FS=OBL PST write
'I wrote a big RED book.'

Crucially, (65d) shows that pied-piping parts of the nominal category alongside the head noun will also lead to ungrammaticality⁶. This contrasts with the grammatical sentences in (66) where entire nominal categories are proposed into the prefield:

- (66) a. gai |apa #hani-s=a=ta ke ko xua
big red book-3FS=OBL=1SG DECL PST write
'I wrote a BIG RED BOOK.'
- b. #hani-s gai |apa=s=a=ta ke ko xua
book-3FS big red=3FS=OBL=1SG DECL PST write
'I wrote a BIG RED BOOK.'

However, the extraction of the head noun by itself to the prefield is possible, as long as the stranded modifiers occur in their postnominal position:

- (67) #hani-s=a=ta ke gai |apa=*(s=a) ko xua
book-3FS=OBL=1SG DECL big red=3FS=OBL PST write
'I wrote a big red BOOK.'

Still, this analysis cannot account for why verbal categories cannot undergo long-distance focus movement in Khoekhoe (68a) unlike in Bulgarian (68b):

- (68) a. *!ʔama₁=ta ke ko mii
buy=1SG DECL PST say
[matabap ke ko luriha-p=a t₁ ti]
Matabap DECL PST bike-3MS=OBL COMP
'I said that Matabap BOUGHT a bike.'
- b. Zagazil može da e (Harizanov 2019)
gotten.in.trouble might DA be.3S.PRS
'He might've gotten into trouble.'

5. DP/CP syncretism in other Khoe-Kwadi languages

Naro is the only Khoe-Kwadi language known to have obligatory PGN markers on all nominal categories other than Khoekhoe. Interestingly, a clausal pattern similar to Khoekhoe has been observed for Naro. However, unlike in Khoekhoe, all DPs are marked with a suffix -à that is identical in form to

⁶ Postpositional phrases are the only exception to this, and as detailed in section 2.2, this serves as additional proof that PPs are merged to nominals at a higher structural position than other modifiers, potentially escaping the scope of the DP.

the oblique case marker in Khoekhoe, even if the said DP is a declarative subject in the clause-initial position as (69a). These claims are supported by the ungrammaticality of (69b) and (69c):

- (69) a. Néò-s=à n|ãa n|ãaka-|ám=kà khoe-s=à bóò
 Neo-3FS=A PST before-day=P woman-3FS=A see
 ‘Neo saw the woman yesterday.’
- b. * Néò-s=à n|ãa n|ãaka-|ám=kà khoe bóò
 Neo-3FS=A PST before-day=P woman see
 ‘Neo saw the woman yesterday.’
- e. * Néò-s ko hĩ-s=á †χ’ão
 Neo-3FS PRS tree-3FS=A cut
 ‘Neo is cutting a tree.’

Naro follows the same word order constraints as Khoekhoe in declaratives where at most one constituent may precede an obligatory clause second subject clitic that will be inserted if elements other than the subject occur clause-initially:

- (70) a. Thuu=s thuu Néò hĩ-s=á †χ’ão
 recently=3FS PST Neo tree-3FS=A cut
 ‘RECENTLY, Neo cut a tree.’
- b. hĩ-s=á=s kò Néò †χ’ão
 tree-3FS=A=3FS PRS Neo cut
 ‘Neo is cutting A TREE.’
- c. †χ’ão=s kò Néò hĩ-s=á
 cut=3FS PRS Neo tree-3FS=A
 ‘Neo is CUTTING a tree.’

The sentence in (70a) contains a preposed temporal adverb, (70b) contains a preposed direct object, and in (70c) the verb head is preposed to the prefield by itself. Note that unlike in Khoekhoe, when extraction of other elements takes place and the subject remains in midfield, the PGN marker and the -à suffix are obligatorily deleted from the subject.

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