Subject and non-subject *ex-situ* focus in Dagbani

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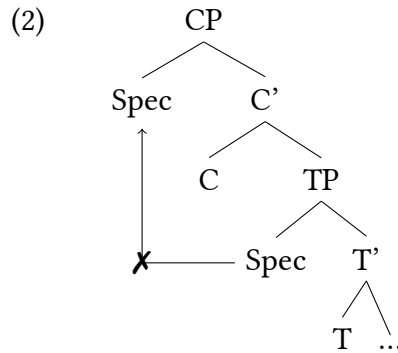Goethe-Universität, Frankfurt

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1   Introduction

Subjects are difficult to move. This much has been known for a long time, with various attempts to derive the effect, such as the Empty Category Principle (Chomsky, 1981), Relativised Minimality (Rizzi, 1990), and Criterial Freezing (Rizzi and Shlonsky, 2007). Recent years have seen a renewed interest in these effects, coupled with approaches that try to subsume the problem under *antilocality*, where movement cannot be too short. Approaches like Erlewine (2016), Bošković (2016), and Douglas (2017) have gone in this vein, who each argue that movement from the canonical subject position Spec,TP to Spec,CP is too short. These authors argue for a particular formulation of anitilocality, Erlewine (2016) terms *Spec-to-Spec Anti-Locality*:[1]

(1)   Spec-to-Spec Anti-locality
      A'-movement of a phrase from the Specifier of XP must cross a maximal projection other that XP.

A prohibition on movement such as this is particularly relevant for the case of subjects. Supposing, as is fairly standard, that subjects canonically lie in Spec,TP (for more discussion on multiple positions within TP, see among others Bobaljik and Jonas, 1996 and McCloskey, 1996b), then if (1) holds, a subject will not be able to move from that position to the lowest projection of CP, since that movement will be too short:

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[1](1) is a descriptive statement, see Bošković (2016) and Douglas (2017) for attempts to derive it through the labeling mechanism of Chomsky (2013). It should also be noted that this version of antilocality differs from others that are on the market. Rather than give an overview here, we refer the reader to Grohmann (2011) for an overview. We will assume throughout this paper that something akin to (1) holds at least for movement from Spec,TP.

(2)

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              CP
            ╱    ╲
        Spec      C'
         ↑       ╱  ╲
         |      C    TP
         |         ╱   ╲
         ✗ ——— Spec     T'
                       ╱  ╲
                      T   ...
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Support for some version of the prohibition on movement such as (1) comes from well known observations regarding subject movement, such as *anti agreement-effects* (Ouhalla, 1993; Richards, 1997), where agreement that would be expected does not arise. For instance, in the following Berber examples, *wh*-extraction of the subject does not allow for the otherwise expected subject agreement morphology on the verb.[2]

(3)   a.   Man   tamghart ay yzrin   Mohand?
             which woman   C see.PART Mohand
             'Which woman saw Mohand?'   [(Ouhalla, 1993, p. 479)]
       b.   *Man   tamghart ay t-zra   Mohand?
             which woman   C 3.F.SG-saw Mohand?

A clear line of analysis of this effect is that agreement is triggered once the subject moves to Spec,TP. Agreement is missing in the second example because the subject has not moved to Spec,TP at any point, but rather has moved directly to Spec,CP. In the case of A'-movement then, it seems that languages that display this effect avoid Spec,TP, ostensibly to avoid being stuck there and unable to move into the left periphery.

Whilst it is important to retain a healthy degree of academic scepticism around the formulation of anti-locality in (1) — there are various formulations of antilocality on the market, and (1) is certainly one of the more strident formulations[3] — it makes clear, testable predictions, and allows us to follow well defined analytical paths. To our eyes, then, it is more than worthy of further attention. It is our aim in this paper to investigate restrictions on subject A'-movement further, specifically through looking at *ex-situ* focus in Dagbani, a Gur language spoken in Northern Ghana. As we will show, Dagbani presents an interesting, and to some degree unique, cluster of properties that bear on the question of subject movement and related matters. Along the way, we will take (1) as being a genuine constraint on movement, and explore what this means for the derivation of focus constructions in Dagbani. Additionally, we will touch upon

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[2]Throughout this paper, unless otherwise indicated, all example sentences come from our own consultation with native speakers of the relevant languages.

[3]Not necessarily a bad thing, of course.

other languages of the region, to draw relevant comparisons to issues that arise as we proceed.

Specifically, we propose that in Dagbani, focus movement of subjects is complicated by a requirement that Spec,TP cannot be skipped in the way outlined above for Berber, coupled with a strong requirement that the subject position be overtly realised (*c.f.* Adesola, 2010). Since *ex-situ* focus is analysed as movement of the focalised element to the left periphery of the clause, this entails that focussed subjects will behave differently to other arguments when under focus. We will show that this leads to there being two strategies for *ex-situ* focus of subjects, both used in Dagbani. In the first strategy, used by embedded subjects, a resumptive pronoun is generated in the lower clause, fills Spec,TP, and is then linked to the focussed element in the matrix left periphery. As we will show, this avoids antilocal movement of the subject because the item filling the embedded Spec,TP does not move beyond that point. Regarding matrix subjects, we propose that Dagbani has innovated a more complex left-periphery to enable the matrix subject to circumvent the restriction in (1), such that the focussed subject can cross some phrase other than TP.

The paper is organised as follows. In section 2 we discuss background information to Dagbani, including its relevant syntactic characteristics. In section 3 we discuss how matrix subjects, embedded subjects and non-subjects all differ in relation to focus movement in Dagbani, showing that what has been thus far characterised as a two-way distinction between arguement types (Samuel Alhassan Issah, 2012) is actually a three-way distinction. Section 4 discusses how embedded subjects differ from non-subjects, and shows that underneath this three way distinction lie two different strategies used in *ex-situ* focus in Dagbani, a movement strategy and a resumption strategy. In section 5 we return to the issue of matrix subjects, and show that they are forced into a different position altogether from the other elements in Dagbani. We provide in section 6 some comparision to areally related languages, and point out that the underlying syntax that creates the difficulty for subjects in Dagbani is shared by a number of its areal (not necessarily genetic) neighbours, and that different languages have developed different strategies to overcome the issue. In this section, we also consider the status of languages that show 'subject-only' resumption, a relatively rare resumption pattern cross-linguistically. Finally, we conclude the paper in section 7.

2 Dagbani: Background Information

Dagbani is a Gur language spoken in northern Ghana. It belongs to the Oti-Volta subfamily of the Niger-Congo language family. The language has three major dialects; the Eastern dialect (Nayahali) which is spoken in and around Yendi; the Western dialect (Tomosili), spoken within Tamale and its surroundings and the Nanuni dialect spoken in Nanuŋ (Samuel Alhassan Issah, 2008; Hudu, 2010). These dialects are mu-

tually intelligible and difference among them are mainly based on tonal variation and a few lexical differences. There are approximately two million speakers of Dagbani in Ghana predominantly found in the Northern part of Ghana. It is genetically related to languages such as Kusaal, Mampruli, Dagaare, Gurene and Safaliba.

Its basic argument alignment is rigidly SVO, with mostly analytic verbal morphology.

(4) a. Abu tú   bíá máá
        Abu insult.PERF.CJ child DEF
        'Abu has insulted the child'
    b. *Bíá   máá Abu tú
        child DEF Abu insult.PERF.CJ
        'Abu has insulted the child'
    c. *Abu bíá   máá tú
        Abu child DEF insult.PERF.CJ
        'Abu has insulted the child'

In ditransitive constructions, where we have a direct and indirect object, these constituents are strictly ordered such that the closest to the verb is the indirect object followed by the direct object (5-a) and then the adjunct (adverbial element) if any (5-b). When this order is defied, the sentences that are formed are ungrammatical (5-c) and (5-d).

(5) a. páɣá   máá tí   ó bíá búkú pàllí
        woman DEF give.PERF.CJ 3SG child book new
        'The woman has given her child a new book'
    b. páɣá   máá tí   ó má   búkú pállì zùŋɔ́
        woman DEF give.PERF.CJ 3SG mother book new today
        'The woman has given her mother a new book today'
    c. *páɣá   máá tí   gbáŋ pállí ó má   zùŋɔ́
        woman DEF give.PERF.CJ book new 3SG mother today
        'The woman has given her mother a new book today'
    d. *gbáŋ pállí páɣá   máá tí   ó má   zùŋɔ́
        book new woman DEF give.PERF.CJ 3SG mother today
        'The woman has given her mother a new book today'

For more information about the general grammatical properties of the language, we refer the reader to Olawsky (1999), Samuel Alhassan Issah (2008), and Samuel Alhassan Issah (in prep).

3 Ex-situ Focus in Dagbani

3.1 Subject versus non-subject focus

With regard to focus constructions, which form the major topic of interest in this paper, Dagbani allows both *ex-situ* and *in-situ* focus. With *ex-situ*, the element that is in focus is moved to the left periphery of the sentence where the entire constituent is followed by a focus marker, either *ka* or a nasal consonant *n,m or ŋ* (which is homorganic with the place of the following consonant). For convenience we will refer to this marker as *n*, but the reader should bear in mind that its realisation is determined by the phonology of the following consonant.

The choice between the markers is at first glance conditioned by the grammatical role of the argument, with subjects appearing with *n*, and all other focused items appearing with *ka*.[4]

(6)   a.   Abu ń   dá   gbáŋ máá
           Abu FOC buy book DEF
           'ABU bought the book.'   (subject focus)
      b.   Búá máá ká ń   dá
           goat DEF FOC 1SG buy.PERF.CJ
           'I bought THE GOAT'   (object focus)

Though we will diverge from this viewpoint, for reasons that will become clear shortly (see section 3.2), the view up to nown taken in the literature (for instance Samuel Alhassan Issah, 2012) is that the distribution of the focus markers is determined by grammatical role. That is, *n* combines with subjects in focus, and *ka* combines with all other focussed elements. This is supported by the fact that a similar division of focus markers apparently dividing subjects and other arguments is seen in related Gur languages.[5] For instance, the following from Gurene (Dakubu, 2003) shows that there is an optional focus marker *n* which marks focussed subjects, and another marker *ti* used to mark non-subjects.

(7)   a.   a-nɪ n   zàa   nyɛ́ bʊ̀dáa lá?
           a-WH FOC yesterday see man   DEF
           'Who saw the man yesterday?'   [Dakubu, 2003, p. 4]
      b.   á-nɪ   ŋmɛ̀ ʔì
           a-WH beat 3SG.INT
           'Who beat him?'   [Dakubu, 2003, p. 4]
      c.   bá-nɪ tì fʊ̀ nyɛ?
           ba-WH FOC 2SG see

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[4]For the Dagbani examples, we translate the sentences with the focussed element in capitals.
[5]See also Leffel (2011) for a similar situation in Masalit.

‘Who (what group) did you see?’ [Dakubu, 2003, p. 4]

   d. lɔ̀g-kʊ́-nì   tì fʊ̀ nyɛ?
       thing-ku-WH FOC 2SG see
       ‘Which thing did you see?’ [Dakubu, 2003, p. 4]

We illustrate with two further examples, both Gur (Mabia) languages. Firstly, Kusaal (Abubakari, 2016):

(8) a. múì ka bà sá dī.
       rice FOC 3SG PST eat
       ‘It is rice that they ate yesterday (not beans)’. [Abubakari, 2016]
    b. Dáú lá ń   dā’ bʊ́ʊ́g lá.
       man DEF FOC buy goat DEF
       ‘It is the man that bought the goat (not the woman)’ [Abubakari, 2016]

Secondly, (the Pisaali dialect of) Sisaali (Dumah, 2016):

(9) a. Duma yɔbɔ loori.
       Duma buy car.
       ‘Duma has bought a car’ [Dumah, 2016, p. 6]
    b. Duma rɛ   yɔbɔ loori.
       Duma FOC buy car.
       ‘It is Duma who bought a car’ [Dumah, 2016, p. 6]
    c. Ba   aa   kpu punaa hu.
       They PROG kill animal DEF
       ‘They are killing the animal.’ [Dumah, 2016, p. 6]
    d. Baa   rɛ aa   kpu punaa hu.
       They.EMPH FOC PROG kill animal DEF
       ‘It is they who are killing the animal.’ [Dumah, 2016, p. 6]

This is not an exhaustive list of languages with this property and we refer the reader to Kalinowski (2015) for a more comprehensive survey of focus marking in African languages, where Gur languages are included in the survey.

    Returning to Dagbani, further evidence of a split between subjects and non-subjects can be seen in the behaviour of the two classes with regards to *in-situ* focus. Focussed subjects are not allowed to appear *in-situ*, whilst all other elements are. It is easy to see that *in-situ* focus is possible with non-subjects. We see that (10-b) such as the following can serve as the answer to the question in (10-a), when the object is left in its base position.[6]

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[6]It is no coincidence that the question formation in (10-a) uses the same focus morpheme: question formation with q-words moved to the left-periphery and *ex-situ* focus are formed in the same way in Dagbani.

(10) a. Bò   ká ó   dú?
          What FOC 3SG climb-PERF.CJ
          'What has s/he climbed?'
      b. Ó   dú   lá kúɣú
          3SG climb-PERF.CJ FOC stool
          'S/he has climbed a stool.'

Since *ka* appears only in the left-periphery, and never in *in-situ* positions, we must rely on the context determining that we are truly dealing with focus here. Answers to wh-questions are generally taken to be focussed since they contain new information. Thus, movement to the left periphery is not obligatory for Dagbani focus.[7] It is difficult to show that subjects do not allow for *in-situ* focus. With subjects, movement to the left-periphery is string vacuous; the canonical subject position is Spec,TP and already the leftmost element of the focus. However, one of the characteristics of *in-situ* focus in Dagbani is that the focus marker cannot appear with the *in-situ* focus. Thus, in (10-b), the sentence would be ungrammatical if *ka* were to accompany the object. We can utilise this property for subjects. If subjects were allowed to remain *in-situ* under focus, we would expect that they can appear without the focus marker, even when interpreted as in focus. The following pair of examples demonstrate that, leaving the subject in its base position without a focus marker yields a grammatical sentence when it expresses new information:

(11) a. ŋúní ń cháŋ   púú máá ní?
          Who FOC go.PERF.CJ farm DEF LOC
          'Who has gone to the farm?'
      b. #Tóhá máá cháŋ   púú máá ní?
          Hunter DEF go-PERF.CJ farm DEF LOC
          'The hunter has gone to the farm.'

The interpretation of the sentence is infelicitous in this example. Thus, the focus marker is obligatory for subjects when in focus, and we take this to mean that *in situ* focus is not possible for subjects, in contrast to other elements in the sentence.

In certain respects, some of this behaviour is not all that surprising. It has already been noted in the literature (Fiedler et al., 2010) that languages in the West African region (Dagbani being one of the languages in their study) show special behaviour regarding putting subjects into focus. Specifically, Fiedler et al. (2010) show that languages in this region mark focus on subjects differently and/or more robustly than on other elements, like objects or adjuncts. Dagbani is no exception here: subject focus

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[7]The example in (10) can alternate with the *ex-situ* variant. Whilst there are possibly subtle differences between the two (*ex-situ* tends to express exhaustivity or surprise), they do not factor into our discussion here and we ignore the distinction between the two.

is obligatory, and it uses a different focus marker to other elements. Furthermore, it is not possible to focus subjects *in situ*, which is possible for other elements.

Ex-situ focus always involves the focussed element appearing at the left edge of the clause, where it is preceded by a focus marker, which as we have seen, varies according to the role of the focussed element. The element in the left periphery appears to be in that position by virtue of having moved there from its base position. This can be easily seen for objects, whose clause initial position contrasts with the regular position of objects, as well as the fact that when they are in this position, a focussed interpretation (with concommitant marking) is obligatory. Furthermore, we can see that this is a movement dependency because it is sensitive to island constraints. Consider the following example, where the focus is intended to lie only on one part of a coordination. It is not possible to move the conjunct to the left periphery and leave the rest of the coordination behind, which is a simple violation of the coordinate structure constraint (Ross, 1967).

(12) *Abu$_i$ ká Wumpini nyá   [t_i míní Chentiwuni].
      Abu Foc Wumpini see.PERF.CJ [and Chentiwuni]
      'Wumpini saw ABU and Chentiwuni.'

It is also not possible to move part of a coordination that lies in the subject position to the left periphery where it would combine with a focus marker.

(13) *Abu$_i$ ń   [t_i míní Chentiwuni] dá   lóorì
      Abu Foc   and Chentiwuni buy.PFV.CJ a.car
      'ABU and Chentiwuni bought a car.'

Instead, if one wants to focus part of a coordination, then the focus marker must appear to the right of the entire coordination, even if only one of the conjuncts is in focus.

(14) a. Napari míní Mbangba ká tí   sà pùhí.
          Napari and Mbangba FOC 1PL PST greet
          'We greeted NAPARI and Mbangba yesterday.'
      b. *Napari ká   míní Mbangba tí   sà pùhí.
          Napari FOC and Mbangba 1PL PST greet
          Intended: 'We greeted NAPARI and Mbangba yesterday.'

(15) a. *Napari ń   míní Wumpini dá   lóórì
          Napari FOC and Wumpini buy.PFV.CJ lorry
          Intended: NAPARI and Wumpini have bought a lorry
      b. Napari míní Wumpini ń   dá   lóórì
          Napari and Wumpini FOC buy.PFV.CJ lorry
          NAPARI and Wumpini have bought a lorry.

Such facts are easily understandable if *ex-situ* focus in Dagbani is derived through movement and (14-a) is an example of *across-the-board* movement.

There are of course various ways in which movement could play a role in the creation of *ex-situ* focus. There are known to be quite some African languages which use a clefting strategy in focus constructions, such as Yoruba (Adesola, 2005). A key diagnostic of such languages is that the element that occurs when making a focus construction is used elsewhere as a verbal element. However, in Dagbani, there is no evidence to suggest that a clefting strategy is employed in the contexts under discussion. The existential verb in Dagbani is *nyɛ*:

(16) Bɛ́ nyɛ́lá k̀arímbíhí
      3PL COP   students
      'They are students.'

Furthermore, even in a cleft construction, the focus markers still appear, in addition to the copula (Hartmann and Sam Alhassan Issah, 2018):

(17) Shikuru ń nyɛ́ o nì jé   bínshèɣú, (*àmáá ó je
      school FOC COP 3SG DEP dislike.PERF.CJ school   but   3SG dislike.PERF.CJ
      túmá gbá)
      work TOO
      'School is what he dislikes (*but she dislikes work as well).'

Both focus markers, *ka* and *n* are used only in contexts involving focus, and do not serve any other verbal marking duty.[8] Thus, we assume that *ka* and *n* are focus heads in the left periphery, that both raise an element bearing focus to their specifier position.

3.2 Embedded Subjects

Though characterising the split as subject vs. other captures the data that we have looked at so far, and fits nicely in with the observation of Fiedler et al., things quickly become more complicated once we factor in the behaviour of embedded subjects. Somewhat surpisingly, embedded subjects combine with *ka* instead of the expected *n*.

(18) Dó só   ká ń wúm   nì ó dá   lóórì
      [man certain]$_i$ Foc I hear.PERF.CJ that he buy.PERF.CJ car
      'I heard that A (CERTAIN) MAN bought the car.'

A couple of points are worth elaborating on here. The use of *n* is strictly forbidden in

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[8]There are forms with other meanings that are homophonous with these, such as the first person singular pronoun for *n* and a linker element with a meaning akin to '*and so*' for *ka*. We assume that these instances of homophony are accidental, and do not consider them further in the remainder of the paper.

this case, and *ka* is the only choice. It is possible to have focus where the embedded subject moves to the intermediate CP, in which case *n* is used, and *ka* is ungrammatical.

(19) Wumpini yèlí-yá   nì   Mbangba ń/*ká dá   lòòrí
      Wumpini say-PERF.DJ that Mbangba FOC   buy.PERF.CJ car
      'Wumpini said that MBANGBA bought a car.'

However, for raising to the matrix left-periphery, it is obligatory that *ka* be used. A second interesting observation regarding (18) is the use of a resumptive pronoun in the subject position of the lower clause. The resumptive is obligatory here, and cannot be omitted. For all other types of arguments discussed above, the use of a resumptive pronoun in the position before movement is ungrammatical. Thus, the embedded subject position is unique in Dagbani in that it requires a resumptive after focus movement.

(20) Búá só$_i$ ká á   téhí nì *(o$_i$) kpé dúú máá ní
      Goat certain FOC 1SG think C 3SG   enter room DEF LOC
      'A CERTAIN GOAT that I think it has entered the room'

A final observation regarding embedded subjects and their behaviour under focus is the fact that syntactic islands can be violated, without any loss in grammaticality, such as in the embedded coordination in (21) .

(21) Chempang$_i$ ká ḿ wún nì   [*(o$_i$) míní Abu] dá   lóorì
      Chempang$_i$ Foc I   heard that [he$_i$ and Abu] buy-PERF.CJ car
      'I heard that CHEMPANG and Abu bought a car.'

This observation by itself does not appear too surpising. It is fairly well documented in the literature that the use of resumptive pronouns sometimes brings with it an ability to escape syntactic islands (McCloskey, 1990; Shlonsky, 1992; Saah, 1994; Aoun, Choueiri, and Hornstein, 2001; Salzmann, 2011; Salzmann, forthcoming).

For Dagbani, the use of resumptives does not appear to be forced by an island violation, but rather represents the usual strategy of embedded subject focus formation. Strikingly, in Dagbani, resumptives are not used as a general backup strategy for where movement fails. If we try to construct similar examples with extraction from an island within matrix subject or object positions, the use of a resumptive does not help, and the sentences remain ungrammatical.

(22) *Chempang$_i$ ká Napari nyá ó$_i$
      Chempang FOC Napari see him
      Intended: 'Napari saw CHEMPANG.´

In embedded clauses, it is marginally acceptable, if a little degraded, to use a resumptive in place of an element that has moved from within a coordination:

(23) Nepari$_i$ ká   Chempang wúm nì   Wumpini nyá ó$_i$ míní Abu
      Nepari FOC Chempang hear that Wumpini see 3SG and Abu
      'Chempang heard that Wumpini saw NEPARI and Abu.'

However, it appears as though this is an intrusive resumptive, and not reflective of a difference between matrix and embedded objects (see van Urk, 2017 on Dinka), since the a resumptive pronoun cannot in general take the place of an embedded object.

(24) *Nepari$_i$ ká   Chempang wúm nì   Wumpini nyá ó$_i$
      Nepari FOC Chempang hear that Wumpini saw him
      Intended: 'Chempang heard that Wumpini saw NEPARI.'

Thus, Dagbani seems to differ in that resumption is limited to a single position, irrespective of whether one is extracting from an island or not. For the sake of comparison, Salzmann (2011), Salzmann (2013), and Salzmann (forthcoming) shows that resumption in Swiss German is in general limited to (and necessary for) indirect object A'-dependencies, but it is also permitted for subjects and objects embedded within islands.

3.3   Interim Summary

Whilst we started this section discussing how Dagbani appears to show a dichotomy in the behaviour of focused subjects versus all other focused elements, we have seen that it is in actual fact a three way distinction. On the one hand, matrix subject focus (MSF) differ from embedded subject focus (ESF) and non-subject focus (NSF) in that MSF requires the focus marker to be *n*, and not *ka*. In this respect, embedded subjects and non-subjects behave alike. However, matrix subjects and non-subjects form a natural class in that neither require (nor allow for) the use of resumptive pronouns, behaviour that sets both sets of items apart from embedded subjects. The key findings are summarised in Table 1.

	Marker	Resumption?	Island Extraction?
MSF	n/m/ŋ	✗	✗
ESF	ka	✓	✓
NSF	ka	✗	✗

Table 1: Interim Summary

4 Two Derivations for *ex-situ* Focus

We now turn to discussion of why there would be these two separate groupings of how elements behave under focus. We ignore for the time being MSF, returning to it in section 5, and concentrate attention on the difference between ESF and NSF.

From the facts above, we can identify that there are two different strategies for encoding *ex-situ* focus in Dagbani. The first of these two strategies uses syntactic movement, where the element that is in focus moves in to the left periphery of the clause into the specifier of a FocP. This derivation is what we propose is used for NSF. In the second derivation, used for ESF, we propose that the element in the left-periphery is base generated there, whilst a resumptive pronoun fills its canonical clausal position in the embedded clause. We will here outline the syntax of each of these derivations, before discussing why there are two focus heads in section 5.
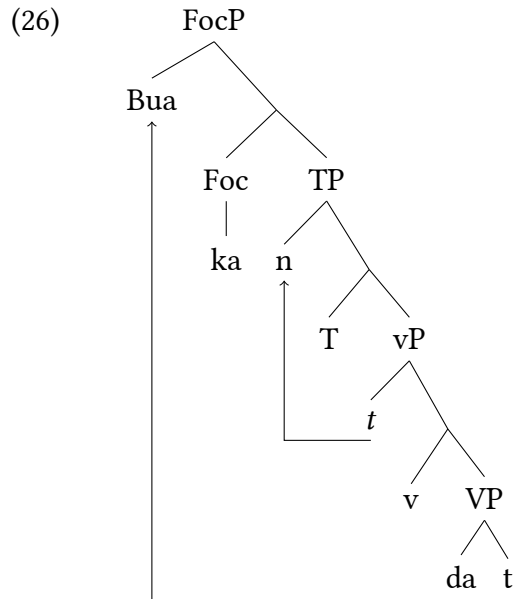
4.1 Movement to the Left Periphery

In the derivation where an element moves syntactically to the left periphery, we assume that the morpheme *ka* is the realisation of the head of a FocP that lies somewhere in the Spec,CP domain. The phrase which is interpreted as focussed bears a focus feature that must be associated with the relevant Foc^0. Now, Dagbani is a language where focus can be optionally *ex-situ* or *in-situ*, a type of language that is relatively rare in absolute terms, but somewhat frequently attested in the languages of West Africa (see Hartmann and Zimmermann, 2007a on Tangele, Hartmann and Zimmermann, 2007b on Hausa, Hartmann and Zimmermann, 2009 on Guruntum, and Hartmann and Zimmermann, 2012 on Bura). As to why Dagbani allows both *in-situ* and *ex-situ* focus is doubtless an interesting question, but not one that is of concern to us here, and for a discussion we refer the reader to Samuel Alhassan Issah (in prep). For now, let us simply assume that whatever is responsible for driving movement to the left periphery is optionally present or operational in Dagbani, and thus, with certain exceptions, focussed elements are only sometimes compelled to move to Spec,FocP.[9] In a construction with movement of a focussed object, we then assume the following derivation (ignoring irrelevant projections in the tree).

Following McCloskey (2002), let's assume that Foc is endowed with both an [EPP] feature and a [+Focus] feature. Furthermore, T is endowed with an [EPP] feature. The

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[9]There are a number of ways that this could happen. If we assume that features are ultimately responsible for driving syntactic movement, then we could say that the uninterpretable Focus feature is optionally strong or weak in Dagbani, and thus sometimes forces movement and sometimes not, following in the early minimalist style of Chomsky (1995). Alternatively, if the relevant feature that forces movement is simply an edge feature that certain projections possess, then we can assume that this is optionally carried by the Foc^0 in Dagbani, which will give the result of optional movement. Ultimately, since the issue does not bear on our discussion, and there are a plethora of other imaginable approaches, we leave the issue open here.

subject moves from Spec,vP to fulfill the EPP requirement on T. The object, which also bears a [+Focus] feature, then moves to the Spec,FocP in order to fill the specifier of Foc, and thereby satisfy the EPP. The derivation for (6-b) is repeated below, and schematised in (26).

(25)   Búá máá ká ń dá
        goat DEF FOC 1SG buy-PERF.CJ
        'I bought THE GOAT'

(26)

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                FocP
              /      \
         Bua          \
         ↑          /    \
              Foc        TP
               |        /   \
              ka      n      \
                      ↑     /   \
                          T      vP
                          |     /  \
                          t    /    \
                              v      VP
                                    /  \
                                  da    t
```

Certain properties follow from this derivation. Firstly, since we are dealing with a movement derivation, we do not expect that syntactic islands will be able to be escaped from here. Furthermore, since we are dealing with a derivation whereby the element is moved into the left periphery, we expect that the base position is filled by a trace (or deleted copy) of the moved element. This has the effect that there is a gap in the base position of the object. Again, ignoring MSF for the time being, we propose that this is the strategy that is employed in NSF, accounting for the fact that we do not observe these elements either escaping islands or being associated with a resumptive pronoun.
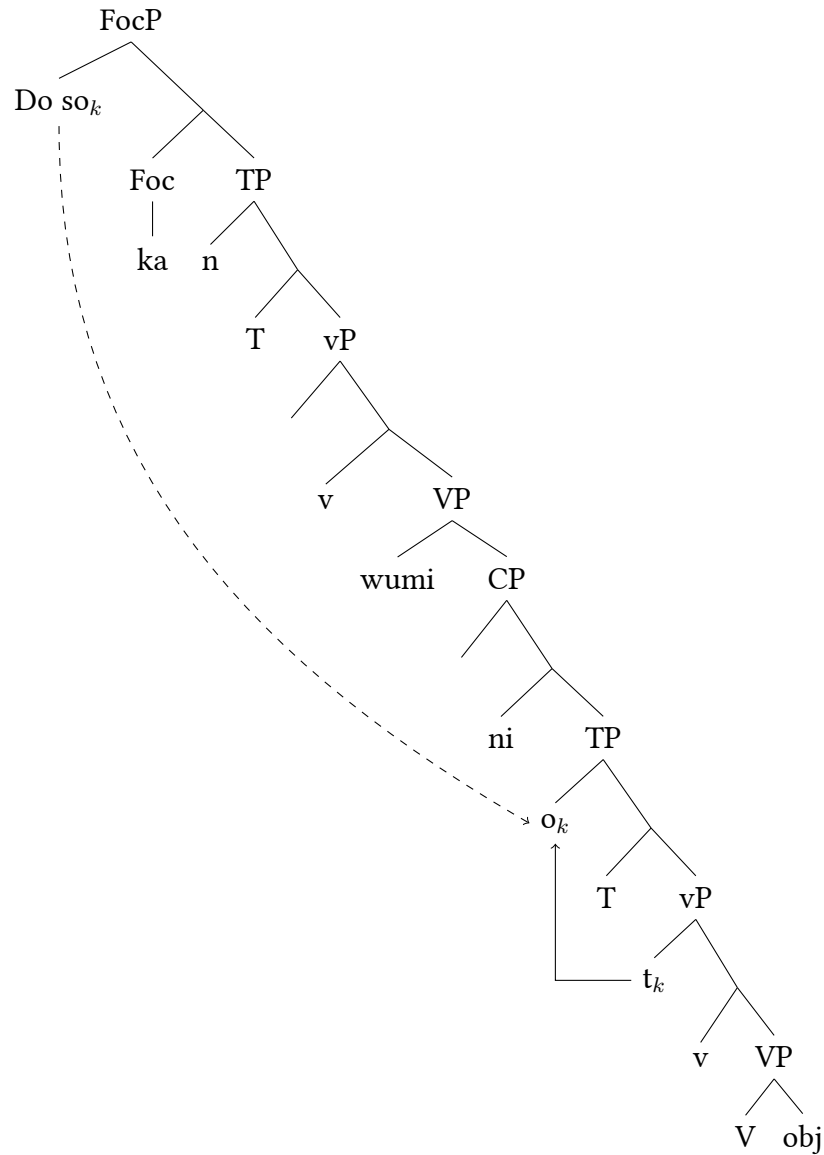
4.2   Base Generation and Resumption

The second strategy that Dagbani resorts to with *ex-situ* focus, we propose, is a strategy of prolepsis, whereby the focussed element is base generated where it appears in the left-periphery, and is associated with another element elsewhere in the structure. This is what is found with ESF. Recall that these sentences superficially look very similar to those that are derived through the strategy outlined in the previous subsection, in

that there is a focussed element in the left periphery, to the left of *ka*. Since *ka*, by assumption, is the realisation of Foc^0, then we must assume that in this derivation as well, the focussed element lies in Spec,FocP. However, the superficial difference between ESF and NSF is that there is a resumptive pronoun in the subject position of the lower clause, whilst there is no corresponding resumptive with NSF.

What we propse then, for this derivation, the element that occupies the specifier of FocP is base generated directly in Spec,FocP, and it becomes associated with a resumptive pronoun that acts as the subject of the lower clause. We assume that this is a relation of binding (following McCloskey, 1990), and not one of movement where the resumptive is the spell-out of a lower copy. Furthermore, we assume that the pronoun in the embedded clause obeys the movements that we would standardly expect: it is base generated in the embedded Spec,vP and moves to Spec,TP to fulfill the EPP requirement of the embedded T. Thus, we are left with the following derivation, where we indicate movement relations with a solid arrow, and binding relations with a dashed arrow. The pronoun, which is generated as the specifier of vP, raises to Spec,TP to fill the EPP requirement on T. We assume that in this instance, CP can be merged without an EPP feature, and therefore no element is compelled to raise to Spec,CP. In the matrix clause, the focussed item is generated directly in Spec,FocP, where it is associated with the resumptive pronoun in the lower clause so that the interpretations match. For the example in (18) (repeated below), we can give the derivation in (28).

(27)   Dó só   ká ń wúm   nì ó dá   lòòrí
        [man certain]$_i$ Foc I hear.PFV.CJ that he buy.PFV.CJ car
        'I heard that A (CERTAIN) MAN bought the car.'

(28)

```
                    FocP
                   /    \
            Do so_k      \
               ¦        /  \
               ¦     Foc    TP
               ¦      |    /  \
               ¦     ka   n    \
               ¦             /   \
               ¦            T     vP
               ¦                 /  \
               ¦                v    VP
               ¦                    /  \
               ¦                 wumi   CP
               ¦                       /  \
               ¦                     ni    TP
               ¦                          /  \
               ¦·········> o_k           /    \
               ¦               ↑        T      vP
               ¦               |_____|      /  \
                              t_k            v    VP
                                                 /  \
                                                V    obj
```

In this case, there is no movement relation connecting the element in the left pe-
riphery and the pronoun, and we thus expect that the connection between the two can
'violate' syntactic islands, as we have observed is the case for ESF. This is of course an
illusion of sorts: there is no island violation because there is no element moving out of
an island. Note that the resumptive is obligatory in this derivation. We know from the
examples above that ungrammaticality results if the resumptive is omitted from con-
texts of ESF. This is expected in this derivation: the resumptive is obligatory because
it is required so that it can satisfy the EPP on the lower T, and receive the thematic
information assigned to the lower subject. The element that lies in Spec,FocP receives
its interpretative properties, such as thematic role *etc.* through its association with the

resumptive.

4.3 Why Use Resumption?

4.3.1 The General Immobility of Subjects

Using resumption in place of moving a subject is perhaps not all that surprising, and looks like a Criterial Freezing effect in the sense of Rizzi and Shlonsky (2007). They argue that elements that occupy a criterial position are frozen in place. Since there is a subject position (SubjP), which is criterial, subjects that raise to Spec,SubjP cannot move beyond that. Crucially for them, once an element comes to occupy this position, it is frozen in place, and cannot move any further, say to fill a focus requirement in the left-periphery. In the event of there being some projection higher up that requires its specifier to be filled, then one strategy that languages can use to circumvent this conflict is through the use of a resumptive, allowing the higher specifier to be filled by a resumptive pronoun, which must remain in position.

There is a potential worry here, however, since it is not at all clear why this Criterial Freezing ought to hold. Whilst it does have the advantage that is equates the immobility of subjects with other immobile elements like foci and topics, in some sense it merely shifts the problem since it is not clear why objects are not treated in the same manner, i.e. why is there no ObjP, whose specifier position similarly renders an object immobile?

If we restrict attention to subjects, and ignore the immobility of topics and foci which we unfortunately cannot explore further here, a more promising alternative to us seems to be a spate of recent research which has attempted to account for the immobility of subjects through *anti-locality*. These works have looked as phenomena such as Agent Focus in Kaqchikel (Erlewine, 2016), *that*-trace effects in English (Douglas, 2017) and the subject condition more generally (Bošković, 2016). Such approaches have all proposed some variation on the theme of *antilocality*, where movement is too short to be licit. The papers each take as their starting point the following descriptive generalisation proposed by Erlewine (2016):

(29) Spec-to-Spec Anti-locality
      A'-movement of a phrase from the Specifier of XP must cross a maximal projection other than XP.
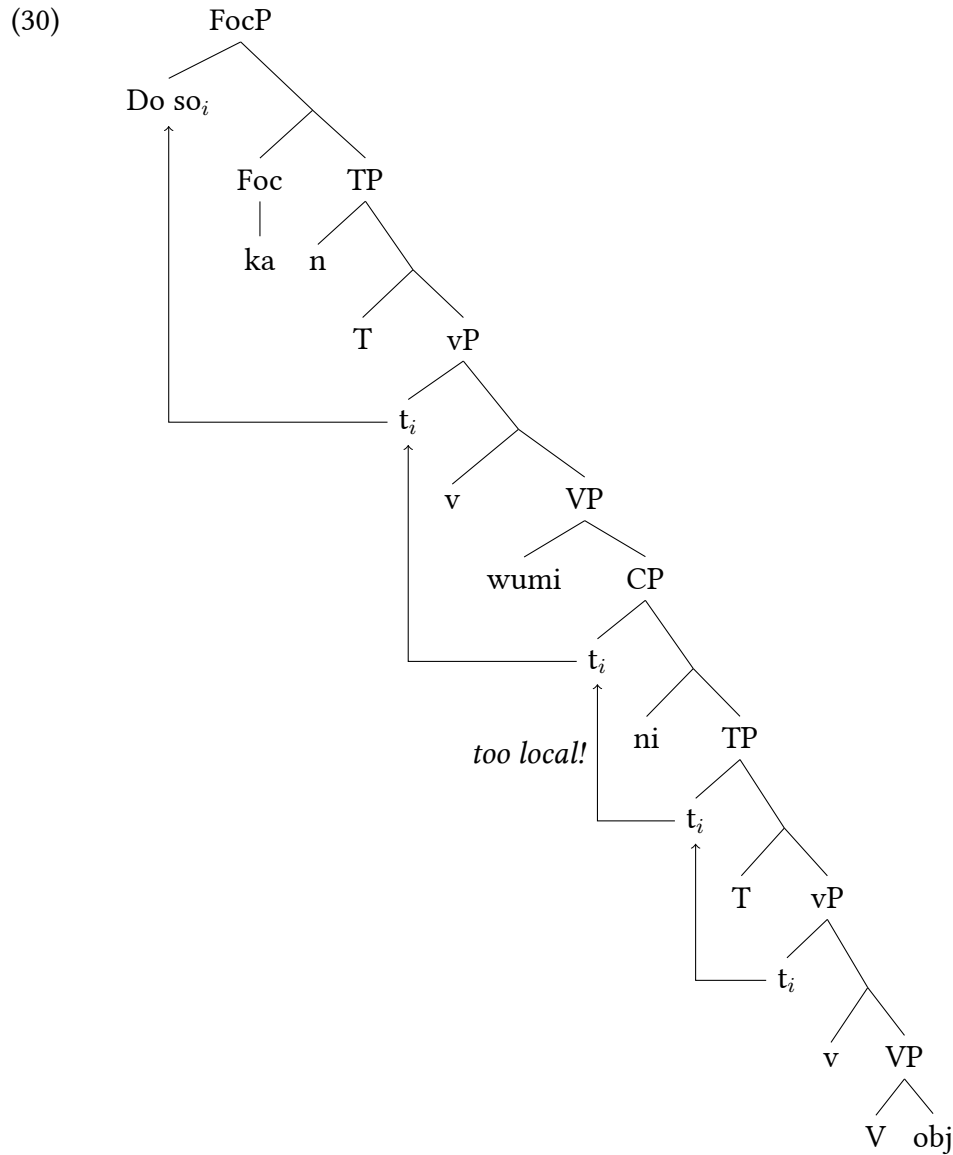
Each of the accounts differ from the others in how they propose to derive (29). Our aim here is not to adjudicate between them but rather provide extra support for its status as a descriptive generalisation or some equivalent that prevents movement from Spec,TP to Spec,CP.[10] Both Douglas (2017) and Bošković (2016) suggest that it may be

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[10]We note that such a condition is at times too restrictive, and potentially forces us into corners we

derived through the theory of labeling, a conclusion which we see as reasonable, and not in conflict with our analysis here. For concreteness, we adopt the explanation of Douglas (2017), who proposes that the reason why an element in Spec,TP cannot move to Spec,CP, is because the label of TP is more accurately ϕP, ϕ being the element that is shared between the subject and T. That the subject is (partly) complicit in giving the label to the projection that dominates it has the effect that once CP is merged on top of TP/ϕP, movement of the subject to Spec,CP is effectively moving from the complement of C to the specifier of C. Effectively, as Douglas (2017, p. 14) puts it, "C^0 has merged with the *same* ϕ twice: once as its complement and again as its specifier." Spec-to-Spec Antilocality is then a case of an illicit comp-to-spec movement, which Douglas proposes is ruled out through economy (Abels, 2003; Abels, 2012). We do not wish to dwell on the details here, so for the full techical implementation, we refer the reader to the cited works.

With this in mind, we can understand why the resumptive pronoun is necessary in ESF, rather than using the gapping derivation that NSF uses. The answer is that the intermediate stage of movement that would need to happen in a movement derivation is too short. The derivation would precede as follows. Firstly, the embedded subject moves from Spec,vP to Spec,TP to satisfy the EPP requirement of the embedded TP. Secondly, in order to move to the matrix clause, it would need to move to Spec,CP in order to escape the phase. Thirdly, it would move to the matrix Spec,vP to escape the lower phase in the matrix clause (assuming multiple specifiers are possible), before finally moving to the matrix Spec,FocP. It is the second stage of this derivation that causes the problem, since the movement is too short. Using a proleptic derivation however, of base generation in the left-periphery and a resumptive pronoun lower down in the structure allows for the best of both worlds: the specifiers of both FocP and the embedded Spec,TP are able to be filled, and nothing is compelled to move between the two.

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may not necessarily wish to venture into. Douglas (2017) notes that it effectively forces us to give up on the general view of subject movement to Spec,CP in V2 languages, and Bošković (2016) notes that we are forced to assume the split-Infl hypothesis of Pollock (1989), if the same condition were to hold for A-movement, even for languages where there is little evidence that Infl is complex, which may in itself be problematic (Bobaljik and Thráinsson, 1998).

(30)

FocP
Do so$_i$
 Foc TP
 ka n
  T vP
  t$_i$
  v VP
  wumi CP
  t$_i$
  too local! ni TP
  t$_i$
  T vP
  t$_i$
  v VP
  V obj

5 Matrix subejcts: Why two focus heads?

Now we are in the position to consider MSF. We repeat the distribution of properties in Table 2, to see how MSF compares to NSF and ESF. Looking at the table, the obvious answer as to which strategy is used by MSF is that it uses a gapping strategy.

Recall from the discussion of this strategy in section 4.1, the hallmark of this strategy is that there is no resumptive pronoun in the base position, rather a gap, and that syntactic islands cannot be violated. At first glance, this appears to be the case here, given that there is no resumptive pronoun, and that islands cannot be escaped from.

	Marker	Resumption?	Island Extraction?	Strategy
MSF	n/m/ŋ	✗	✗	?
ESF	ka	✓	✓	Resumption
NSF	ka	✗	✗	Gapping

Table 2: Interim Summary

However, the reader should recall that we argued in section 4.3.1 that the best possible option for subjects is that they use a resumption strategy, since this allows both Spec,TP and Spec,FocP to be filled. Furthermore, movement from Spec,TP to Spec,FocP was claimed there to be too local. Clearly, then, there are non-trivial questions to be answered before adopting wholesale the idea that MSF uses movement, instead of resumption. Coupled with this, there is a further issue that remains to be resolved: the realisation of the focus marker. Dagbani is somewhat unusual from a cross-linguistic perspective (though as discussed in section 3.1, similar to related Gur languages) in that it has different marking of focus for (matrix) subjects versus other elements. Clearly then, whatever account is to be presented that relates to MSF, must also account for this fact as well.

5.1 A Movement Analysis of MSF

Before outlining our proposal, it is worthwhile considering why MSF could not make use of resumption. There is a well documented restriction on resumptive pronouns, such that in many cases resumptive pronouns are not able to be used to refer to the highest subject, a condition identified for Irish by McCloskey (1979) and termed the *Highest Subject Restriction* (HSR). This is not a restriction on resumptives being used for subjects, but only the highest one, as can be seen in the comparision of (31-a) and (31-b) below.

(31) a. *an   fear a raibh   sé breoite
          them man c be.PST he ill
          'the man that (he) was ill.'   [McCloskey, 1990, p. 210]
      b. an t-ór seo at chried   corr-dhuine go raibh sé ann
          this gold   c believed a few people c   was   it there
          'this gold that a few people believed (it) was there.'   [McCloskey, 1990, p. 210]

Resumption and movement are generally in free variation in Irish, however, there are a couple of exceptions to this. The first is where the A'-dependency would cross an island boundary: in this case, only resumption can be used. The second, is when the A'-dependency targets the highest subject. In this case, only gapping can be used.

McCloskey ([1990](#)) proposes that the reason why resumptives are illicit in this position is because the antecedent and resumptive enter into a A'-binding relation, but one that cannot be too close. That is, it is an A'-equivalent of a Principle B effect, and that resumptives must be sufficiently far away from their binder.[11]

(32)   A pronoun must be A'-free in the least complete functional complex containing the pronoun and a subject distinct from the pronoun.

With this in mind, the lack of resumption in Dagbani MSF is brought into relief: the resumption strategy cannot be used for MSF, because even though it is the best in terms of allowing both Spec,TP and Spec,FocP to be filled for ESF, with MSF these two positions are too close and they violate (32). That is, there is no subject which separates the resumptive pronoun and its binder, and the pronoun is not A'-free. The same tension in *ex-situ* focus arises for matrix subjects as was identified for embedded subjects above: that they are asked to fulfill EPP requirements in both FocP and TP. However, given that they cannot employ a resumptive pronoun to fill Spec,TP without violating (32), the conflict seems unresolvable.

However, given that *movement* to Spec,FocP is also not an option due to antilocality, then we propose that Dagbani has been forced to innovate and has developed a shell-like structure, with a higher FocP above the one headed by *ka*.[12]

(33)   *to be revised below*
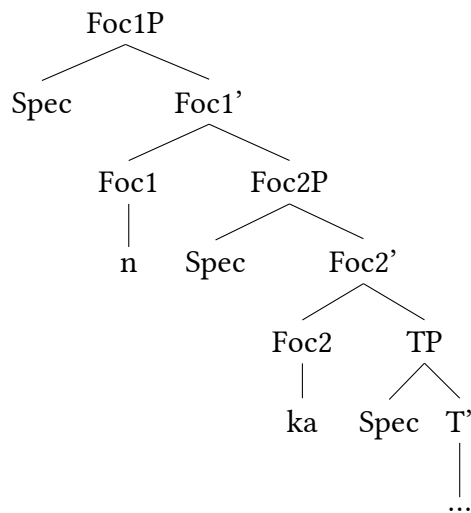
The result of this higher Foc1P, is that it is sufficently far enough away from Spec,TP

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[11]There are disagreements over exactly what underlies the HSR, see Salzmann ([forthcoming](#)) for some concerns over McCloskey's proposal.

[12]This innovation is partly forced by the functional requirement, identified by Fiedler et al. ([2010](#)), that focussed subjects must be marked. This functional requirement will rule out a language that leaves (matrix) subjects obligatorily *in-situ*.

such that movement is now possible without violating Spec-to-Spec antilocality. There is a projection in between Spec,TP and Spec,Foc1P, namely Foc2P, which is crossed with movement from Spec,TP, and antilocality is not violated. It should be further noted that fairly standard assumptions of economy, such as 'shortest move' will restrict this position to matrix subjects. Since all other foci can move to Spec,Foc1P, then they will do so. Matrix subjects, who are independently not allowed to do so because of antilocality, are only able to move to Spec,Foc1P, and so that is where they move to.

One final point to addess is the realisation of the Focus marker. It is tempting to view *n* as the realisation of Foc1. However, this begs the question of why *ka* is not also pronounced as part of the realisation of subject focus; that is, why is the marker for matrix subject focus not *n+ka*. We see two options here. Firstly, it could be the case that the focus head can only be realised when its specifier position is filled. Since there would be no element in Spec,Foc2P, then the *ka* would not be able to be pronounced. Arguable evidence for this view comes from *in-situ* focus. Recall from our discussion in section 3 that when a non-subject remains *in-situ* with a focus interpretation in Dagbani, the focus heads in the left periphery cannot be pronounced. We can assume that focus is still represented in the left periphery, and Foc undergoes association with the focussed element, but Foc is not realised due to the absence of an element in its specifier.[13]

(34)   a.   Bò   ká   bɛ́   dá?
            what FOC 3PL buy.PFV.CJ
            'What did they buy?'
       b.   kùgú ká   bɛ́   dá
            stool FOC 3PL buy.PFV.CJ
            'They bought A STOOL.'
       c.   Bɛ́   dá   lá   kùgú
            3PL buy.PFV.CJ FOC stool
            'They bought a stool'
       d.   *ká bɛ́ dá   kùgú
            FOC they buy.PFV.CJ stool
            intended: 'They bought A STOOL.'

Though this option is plausibly supported by the absence of *ka* with *in-situ* focus, it is by no means without its own problems: it is not clear why *ka* could be pronounced only when it has a specifier for instance. Another option available to us, which we see as perhaps more promising and therefore tentatively adopt, is that the *n* represents the

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[13]There is a surface parse where (34-d) is grammatical in isolation. However, the sentence can only mean 'and they bought a stool,' where *ka* serves as a sentential linker. This is due to the homophony between the focus marker and a sentential linker, which both use *ka*, which we assume (see footnote 8 to be arbitrary. Important here is that (34-d) is inflecitous in the context as an answer to (34-a).

spell-out of both focus heads, either fused together as is often assumed in Distributed Morphology (Halle and Marantz, 1993), or we have a case of a span spelling out two heads (Svenonius, 2012; Merchant, 2015, also Abels and Muriungi, 2008), as in the following diagram.[14] The rules in (36), are then part of the Dagbani lexicon.[15]

(35)
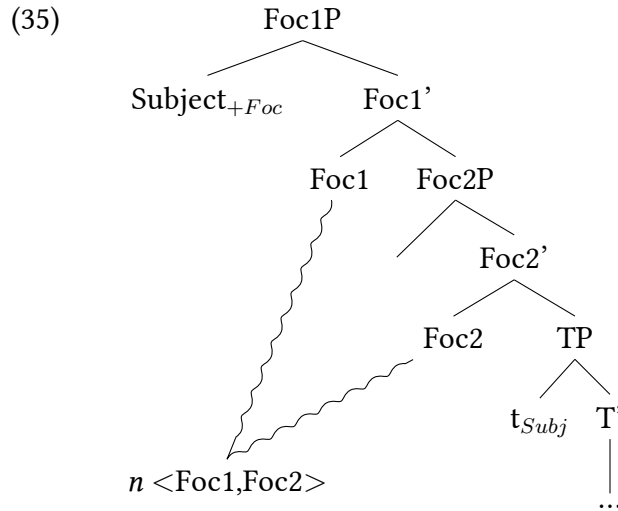
(36)   a. $n \Leftrightarrow$ <Foc1,Foc2>
        b. $ka \Leftrightarrow$ <Foc2>

When postulating that Dagbani has developed a second FocP, it would be nice to find some supporting evidence for this, especially in the light of the fact that movement to the purported Foc1P is string vacuous. This could come in two ways, and ideally a combination of them both. Unfortunately however, both tests are independently problematic in Dagbani.

Firstly, we could show that both focus phrases are filled, and that the subject is to

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[14]We represent the portmanteau as Spanning rules merely for convenience, being easier to represent visually, and do not wish to imply that this is preferable to a fusion based analysis. We see no issue with fusion creating a complex head of Foc1 and Foc2 and the following rules applying. Both approaches seem reasonable, and we have nothing to favour either over the other.

[15]Gereon Müller (p.c.) questions how, given that Foc1 and Foc2 are part of the same Focus head, the two rules in (36) could be distinguished for the purposes of Vocabulary Insertion (VI), since they would be featurally identical. One option is that there is a difference between the two focus projections that goes beyond structural position, presumably reflective of a difference in semantics (cf. Abels and Muriungi, 2008), with the result that there is a tangible difference between the heads which could be identified by some feature. However, it is difficult to pin down what this semantic difference would be. Another option is that VI is sensitive to the complexity of certain features, and as such, it can tell the difference between one instance of a feature and two instances of the same feature. There is some evidence that VI is sensitive to such things, particularly within the realm of case, see Smith et al. (2015) and Smith et al. (2018), who argue that case features are internally complex and recursive, and that VI can distinguish between [K], which is the unmarked case of a language, say, nominative, and [KK], which would be the dependent case, say, accusative.

the left of some other focus by finding some landmark that delimits the edge of TP and show that the subject has moved there if focussed. However, multiple foci are not possible at all in Dagbani, and do not let us test the position of a focussed subject relative to a focussed object. If two elements are in focus, one of the elements will move to the left-periphery and the other will stay *in-situ*. Furthermore, in environments where we would expect multiple *wh*-questions, only one of the elements is a *wh*-word, and the other is an indefinite.

(37)   a.   yà   ká só   cháŋ?
                Where FOC someone go.PERF.CJ
                'Where has someone gone?'
    b.   *yà   ká ŋúní cháŋ?
                Where FOC who go.PERF.CJ
                'Where has whom gone?'

We can see both of these as being the result of a general prohibition on multiple foci in Dagbani, but we do not venture to explain this here.

    Secondly, adverbs which delimit the edge of TP in English, such as *usually, in general* and *most of the time* (see for instance McCloskey, 1996a) do not appear in a useful position in Dagbani. Instead of being to the left of the subject, as in English, they appear somewhat lower down the structure in Dagbani. Somewhat unsurprisingly, these adverbs then turn out to tell us little about the position of the focus morphemes, given that the morphemes appear always to the left.

(38)   a.   ŋúní ń   dì   bàhí   dá lóórì?
                who FOC PAST finally buy car
                'Who has finally bought a car?'
    b.   Bò   ká Napari dì   bàhí   dá?
                what FOC Napari PAST finally buy
                'What did Napari finally buy?'

    In fact, we have not been able to find any adverbs that appear to the left of the subject in their unmarked usage in Dagbani, and thus cannot present any evidence of this sort to bear on the discussion here.

    As a final point before leaving this discussion, it is worth question why the expansion of FocP does not apply in embedded clauses, allowing embedded subjects to move to the matrix clause without having to make use of the resumptive pronoun.[16] We propose that FocP is not a projection that is used for intermediate landing sites, but rather is only used in final movement positions. Assuming this, then first (transitory) step of

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[16]Recall that *n* is possible in embedded clauses, signalling that the expanded FocP is not a root clause phenomenon, see (19) above. However, when a focus appears with *n* in the embedded clause, it cannot move further into the matrix clause.

movement from an embedded Spec,TP is not to Spec,FocP, but rather to Spec,CP. We can then localise the ability to expand and allow for subject movement to only FocP. Whilst this may seem like an arbitrary distinction, this is effectively proposing that FocP is a criterial position, in the sense of Rizzi and Shlonsky, 2007, and can only serve as the final position, arguably because this is where the features involved in prompting the movement are satisfied. Given the existence of the resumption strategy for embedded subjects, there is less pressure for the language to develop an expanded dominating projection. For matrix subjects, it is a necessity because resumption cannot be used as an alternative option due to the HSR in Dagbani, an urgency that arguably hastened the innovation of an expanded FocP but is conspicuously lacking for other positions.

6 The EPP in Dagbani: Some Challenges

With our analysis of Dagbani complete, we turn to some consequences of our analysis.

6.1 Subject Resumption: An Areal Phenomenon

Looking at the distribution of patterns of resumption with regards to subject and object positions, both matrix and embedded, Klein (2016) reports the typology that we give in a modified form in Table 3. All other combinations of gaps and resumptives are unattested.[17]

Based on the above discussion, it is clear that Dagbani fits neatly into Pattern 4. However, we have effectively argued above that Dagbani *could* show a resumptive pronoun in the matrix subject position as well, were it not for the HSR being operative and preventing such a resumptive from being bound too closely, and would therefore be a Pattern 5 language. Patterns 4 and 5 thus represent languages that instantiate 'subject only' resumption, languages that have been noted in the literature but are often remarked to be rare. If our conclusions are correct then, the class of 'subject only' resumption languages ought to be enlarged: the difference between Patterns 4 and 5 can, in some cases, reduce to whether the EPP and/or the HSR is operative or not.[18] We should then expect to find (i) other languages having such a strong EPP requirement; (ii) amongst these languages, some variation in the strategies used to overcome the tension inherent in subject focus.

A key component of our analysis is that the subject is forced to move to Spec,TP. That is, there does not exist the option for the subject to bypass Spec,TP when moving

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[17]Abbreviations in the table are, G = trace/gap, R = resumptive, S = matrix subject, eS = embedded subject, O = matrix object, eO = embedded object. Note that Irish appears in the table twice because of the free variation between resumption and gapping for all positions except for matrix subjects.

[18]Note that in the following, we do not wish to claim that *every* instance of a Pattern 4 language should be classified as 'subject-only'. Rather, we would like to push the claim that these languages are perhaps more common than thought, and explore some of their properties.

	S	eS	O	eO	Example language
Pattern 1	G	G	G	G	Irish (McCloskey, 1990)
Pattern 2	R	R	R	R	Akan (Saah, 1994)
Pattern 3	G	R	R	R	Irish (McCloskey, 1990)
Pattern 4	G	R	G	G	Welsh (Willis, 2000)
Pattern 5	R	R	G	G	Guébié (Sande and Baier, 2015)

Table 3: Typology of Resumption

to Spec,FocP. This effect is seemingly related to the traditional EPP, but it is worth probing a little deeper to make sure that we are on the right lines. As it turns out, there is very interesting variation in the surrounding languages that suggests that our account is on the right track, and that Dagbani uses just one of a myriad of strategies used to get around the tension inherent in subject focus movement.

This can be viewed in one of two ways: either null operators are systematically absent in Dagbani, or null elements are by and large unable to satisfy the EPP in Dagbani.

In fact, such a condition has been proposed to hold for Yoruba in Adesola (2010), namely that a null operator is not sufficiently strong to satisfy the EPP. Yoruba, is also a member of the Volta Congo branch of the Atlantic Congo lanugages (Hammarström et al., 2018), though not directly related to the Gur languages. As discussed by Adesola (2010) and Klein (2016) it is a subject-only resumption language, where resumptives are required in the subject position under focus.

(39) a. Èmi ni mo ra   àpò
          1SG be 1SG buy bag
          'I was the one who bought a bag.'   [Adesola, 2010, p. 82]
      b. Ìwọ ni o   ra   àpò
          2SG be 2SG buy bag
          'You were the one who bought a bag.'   [Adesola, 2010, p. 82]

Though in these examples resumptive pronouns agree with the person and number features of the antecedent, interestingly, there is another, more common strategy, that Yoruba makes use of. As discussed in Carstens (1986) and Richards (1997), Spec,TP can also be filled by the element ó, which has been called the non-agreeing subject resumptive pronoun by Adesola (2010). This element has the form of a third person pronoun elsewhere in the language, but Adesola shows that it also functions in much the same way as an expletive, as shown in (41).

(40) a. Ọlá ni ó   ra   iṣu
          Ola be 3.SG buy yam
          'It was Ola who bought yams.'   [Adesola, 2010, p. 66]

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    b.   Ọlá àti Adé ni ó   ra iṣu
           Ola and Ade be 3.SG buy yam
           'It was Ola and Ade who bought yams.'   [Adesola, 2010, p. 66]

(41)   Ó jọ   pé Olú ti ní   ìyàwó
        it resemble that Olu ASP have wife
        'It appears that Olu is married.'   [Adesola, 2010, p. 74]

Adesola makes two claims that are pertinent for our discussion here. Firstly, he proposes that TP has an EPP requirement in Yoruba such that it must attract some element to its specifier. Secondly, and more interestingly, a null operator is not able to satisfy the EPP requirement of TP. Thus, whilst focus constructions do make use of a null-operator, the EPP cannot be satisfied by this element either lying in, or passing through Spec,TP. Only an element with phonological content can do so, and so either a resumptive pronoun or an expletive must be inserted into Spec,TP. Descriptively, then, Yoruba shows the following condition:

(42)   Surface Subject Requirement
        Spec,TP must be overtly filled.

A similar point can be made for the Kru language Vata, where subjects leave resumptive pronouns when they move from both matrix and embedded subject position (Koopman and Sportiche, 1986):[19]

(43)   a.   àlɔ́ ɔ̀ nɔ̀ mí là
           who he did it Q
           'Who did it?'   [Koopman and Sportiche, 1986, p. 360]
    b.   àlɔ́ ǹ gùgù   nā ɔ̀ nɔ̀ mí là
           who you thought NA he did it Q
           'Who did you think did it?' [Koopman and Sportiche, 1986, p. 360]

The closely related Eastern Kru language Guébié also shows the same pattern, where resumptives are used for extractions from subject position (either matrix or embedded), these data from Sande and Baier (2015):[20]

(44)   a.   touri$^{1.1.2}$ ɔ^3 kɔpa=ɔ$^{3.23.2}$ bag^{w}ɛ$^{3.1}$
           Touri   he send.PERF=him book
           'It's Touri who sent him a book.'   [Sande and Baier, 2015, p. 3]
    b.   ɲɔkpo$^{3.1}$ e^4 na^4 ɔ^3 ni=ɔ$^{4.2}$ joku$^{2.3}$ na^2
           person I say he see-3.SG.ACC see   Q

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[19]Tones are indicated with the original tonal transcription from Koopman and Sportiche (1986): ` = low, ˉ = mid, ´ = high, and ' = mid-high.

[20]Once more, the tone transcription used is replicated from the source.

'Who did I say saw him.' [Sande and Baier, 2015, p. 6]

It is worth noting here that Sande and Baier (2015) explicitly note that subject resumptives are obligatory, and even more interestingly for the topic at hand, resumptives *cannot* be used for objects, which require a gap (45). It is important to stress that the resumption required in these languages is not simply the result of resumption being required from all positions, as is seen in Akan (Saah, 1994), but rather it is seen only from subject position.

(45) bag$^w\varepsilon^{3.1}$ ɔ^3 kɔpa=ɔ$^{3.23.2}$
book he send.PERF=him
'It's a BOOK he sent him (as opposed to a letter).' [Sande and Baier, 2015, p. 3]

This is somewhat akin to the pattern for Yoruba and Dagbani, that Spec,TP must be filled by overt material. However, Vata and Guébié differ from Yoruba in that they do not seem to use expletives, and differ from Dagbani in that this pattern holds of both matrix *and* embedded clauses.

Other Gur languages show a similar pattern to Dagbani, requiring resumption only from the embedded subject position. We illustrate this with Likpakpaanl.[21]

(46) a. Mbim   gbaan le bibib dak ke bi se   timoor gbaan.
children the   FOC people think that they burn bush   the
'People say that THE CHILDREN have burned the bush.'
      b. Kigban le   uja gbaan dak ke Ama daa
Book   FOC man the   think that Ama buy
'The man thinks that Ama has bought A BOOK.'

Similar to the Gur languages, the Kwa language Ewe, also requires resumption from the embedded subject position:

(47) àmèkà yé   Sédìnám gblɔ bé é   ɖù fùfù la?
Who   FOC Sedinam say C 3SG ate fufu DEF
'Who did Sedinam say ate the fufu?'

Ewe is interesting from our perspective, since it shows the same surface pattern as Dagbani with respect to where resumptives are attested, in embedded subject position but not matrix subject position. It does however differ to Dagbani in that in Ewe, there is just one focus marker *ye*, which does not distinguish between subjects and other

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[21]These examples come from our own consultation with speakers. We unfortunately do not have information on tones for these examples. We do not wish to make the exhaustive claim that this is the case for *all* Gur languages. We suspect strongly that it is, however, we do not have data to make the strong claim here. All Gur languages that we were able to test in this regard however do require a resumptive for focus out of the embedded subject position.

items. This is illustrated in the following examples, with both the questions and the answers demonstrating:[22]

(48) a. áméká yé ɖà fùfù á?
          who FOC cook casava Q
          'Who cooked the casava?'
      b. nyee ɖa fùfù
          I.FOC cook casava
          'I cooked the casava.'

(49) a. núká yé nè ɖà?
          what FOC you cook
          'What did you cook?'
      b. fùfù yé mé ɖà
          casava FOC I cook
          'I cooked casava.'

Ewe is not unique in this regard. It is a pattern that is shared by the Kwa language Efutu:

(50) a. Kòfí nɕé mùbè jé
          Kofi FOC he-came here
          'KOFI came here.'   [Obeng, 2008, p. 79]
      b. idɕé èm̀pí nɕè ɕètòbi n̄ mùtuí ɲɔ́ m̀
          it.is stone FOC child the he-threw at me
          'It was a STONE that the child threw at me.´   [Obeng, 2008, p. 79]

It should also be noted that this does not appear to be a familial property just holding for Kwa languages. The Gur language Yom appears to make no distinction between subjects and objects in the choice of focus marker:

(51) a. Wé-rá ⊠á bə́tə́ kááwə̀r̀
          who-FOC NC return.PFV last
          'WHO arrived late?'   [Fiedler, 2006, p. 114]
      b. bə́-r´a ⊠pɔ́ɣ´a j´il-l´a
          what-FOC woman eat.PFV-NFOC
          'WHAT-FOC did the woman eat?´   [Fiedler, 2006, p. 115]

Though each of the languages differs somewhat in the details, they illustrate the point nicely that the languages of West Africa have a remarkable proclivity to require resumption for moved subjects, especially in embedded position, but also matrix subjects. We can therefore identify three areas of parameterisation.

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[22]In Ewe, as in Dagbani, question words that are fronted in the sentence occur with the focus markers.

- Firstly, languages differ as to whether all subjects require resumption (e.g. Vata, Guébié, Yoruba), or only embedded ones (eg. Dagbani, Ewe).
- Secondly, Yoruba allows an expletive, in addition to a resumptive to fill Spec,TP.
- Third, languages differ as to whether subjects and objects are marked by the same focus marker or not.

6.2   Variation in other languages

A crucial aspect of our analysis of Dagbani is that the subject *must* move to Spec,TP. This is what creates both the need for a resumptive pronoun in Spec,TP, as well as the need for the subject to move to a higher position than other arguments are compelled to, thanks to antilocality. However, we have also seen that there is some variation in how this gets resolved. In light of this variation, it is worth revisiting the other West African languages that we discussed in section 6.1 for a comparison of how they deal with the tension introduced with MSF.

Above, we noted that Vata, Guébié and Yoruba (in one of its strategies), require resumption for both matrix and embedded subjects. The examples from Guébié are repeated below.

(52)   a.   touri$^{1.1.2}$ ɔ^{3} kɔpa=ɔ$^{3.23.2}$ bagʷɛ$^{3.1}$
            Touri   he send.PFV=him book
            'It's Touri who sent him a book.'   [Sande and Baier, 2015, p. 3]
       b.   ɲɔkpo$^{3.1}$ e^{4} na^{4} ɔ^{3} ni=ɔ$^{4.2}$ joku$^{2.3}$ na^{2}
            person   I   say he see-3.SG.ACC see   Q
            'Who did I say saw him.'   [Sande and Baier, 2015, p. 6]

These languages, when using this strategy appear to simply disregard the HSR, since resumptives are licit, even required, when a matrix subject is in focus. The HSR appears to be quite common, but not an absolute prohibition crosslinguistically, and it seems that for some languages, it is either inoperative, or violations are tolerated due to other pressures, or other aspects of the syntax make it moot. Thus, these languages are free to use a resumptive in the matrix Spec,TP just as they do in the embedded Spec,TP.

Yoruba has another strategy, in that it can use an expletive to fill Spec,TP, and therefore does not need to use a full resumptive pronoun. It is not clear why Yoruba should have two different strategies to resolve the same problem (filling Spec,TP), but equally, both serve the same end, so it is not clear that this should be seen as an issue. It might therefore be questioned why the latter strategy is not employed also in Dagbani. The answer we think, put quite simply, is that Dagbani does not have any expletive elements that we are aware of.[23] In constructions that often yield expletives, we find that

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[23]This is not to say that all languages that do have expletives will use them for this purpose. Rather, we would like to emphasise that it simply is not an option for Dagbani.
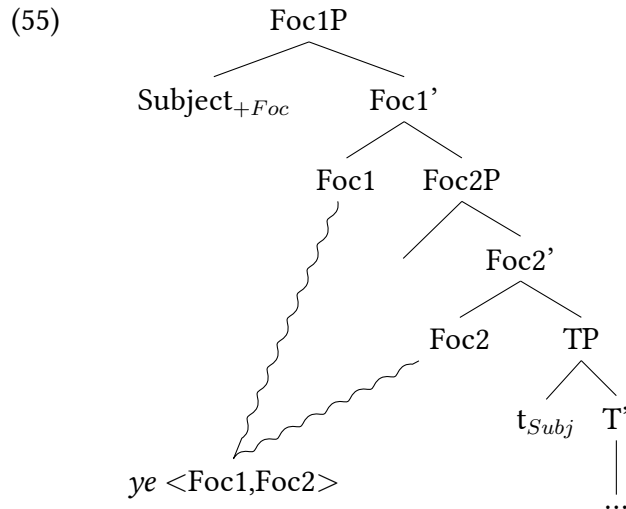
the subject position is filled by a lexical, contentful element, such as in the translations of the English examples of existential constructions and weather expletives:

(53) a. There is a dog on the road.
      b. Báá bé   pàllí máá zùɣú
          dog be.LOC road DEF on
          'There is a dog on the road.´

(54) a. It rained yesterday.
      b. Saa sa   mí-rí   mí sòhálá
          rain PAST rain-IMPERF FOC yesterday
          'It rained yesterday.'

Dagbani thus differs minimally from one of the Yoruba strategies in that Yoruba has the option of using an expletive to fulfill the EPP requirement on T, whereas Dagbani does not. Arguably, this has forced Dagbani to innovate the complex FocP that we proposed above.

Finally, it is worth addressing the last point of variation. Above, we noted that the Kwa language Ewe also has an asymmetry between MSF and ESF, in that the latter but crucially not the former, makes use of a resumptive pronoun in its derivation. In this manner, Ewe patterns like Dagbani. Yet, Ewe differs from Dagbani in that it does not make a subject/non-subject distinction, a property shared by Efutu and Yom, as noted above. On the one hand, we could analyse these languages in much the same way as we did for Dagbani, and assume that there is complex focus head to allow matrix subjects to raise to the left periphery. The difference to Dagbani could then simply be analysed as Ewe lacking the allomorph choices that Dagbani has; both <Foc2> and <Foc1,Foc2> would be spelled out as *ye*. Parelelling the Dagbani structure in (35) above, Ewe would have the following structure, with the VI-Rule in (56), which would apply to a sequence of <Foc1,Foc2> and <Foc2>, since both structures contain Foc2 (via the *Superset Principle* of Nanosyntax, Starke, 2009).[24]

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[24]Once again, this can be done in a fusion analysis of Distributed Morphology. Spanning and Nanosyntax are chosen for ease of exposition.

(55)

```
                    Foc1P
                   /     \
          Subject_{+Foc}  Foc1'
                         /    \
                      Foc1    Foc2P
                               /  \
                            Foc2'
                           /    \
                        Foc2    TP
                               /  \
                          t_{Subj}  T'
                                    |
                                   ...
        ye <Foc1,Foc2>
```

(56) $ye \Leftrightarrow <\text{Foc1,Foc2}>$

On this account, the difference to Dagbani is reduced to a fairly low level morphological difference, in that Ewe simply lacks an allomorphic difference between the simplex and the complex FocP.

Whilst this seems plausible, there is however, an alternative option. Given the inherent tension that exists in focussing a subject, since the movement is too short, we have seen three ways of getting around the issue for matrix subjects. Yoruba, Vata and Guébié all ignore the HSR, and use a resumptive in the matrix subject position. Yoruba can also use an expletive in place of the resumptive pronoun. Dagbani has innovated an extra layer of FocP to allow movement to take place. In case a language takes neither of these paths, another option that is open to languages is to simply tolerate an antilocality violation and move the subject to Spec,FocP, where FocP is simplex, and not a shell-like structure we proposed for Dagbani in (35).

If we are to analyse Ewe in having this option we must assume that the HSR is operative and represents a fairly severe prohibition for these languages. This will mean that a resumptive cannot be used in Spec,TP. Furthermore, in contrast to Dagbani, we must assume that these languages have not innovated the second FocP, and in contrast to Yoruba not co-opted another expletive element to fill Spec,TP. Rather they have decided to tolerate a violation of antilocality, which allows the matrix subject to move to Spec,FocP. The upshot of all of this is that there is only one option for the focus marker. We do not need to analyse <Foc2> and <Foc1,Foc2> as being homophonous in Ewe, since there is only one focus position.[25]

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[25]According to the theory, this is a substandard outcome, since the movement is ultimately too short, but the gramamr would evidently rather tolerate this violation than either not satisfy the EPP of FocP, or violate the HSR. If this analytical option is chose, then the substandard nature of MSF ought to be detectable through a degradation in judgements. Since we do not commit to this option, we leave this

For comparison, we include the structures of the left peripheries and TP projections of the four languages in Figure 1. [26]

6.3   Subject Only Resumption

Before ending the paper, we believe that a discussion of one final aspect of our analysis is due, relating to the first point of variation that we discussed at the end of section 6.1, namely the distinction between languages that require resumptives for *all* subject positions, and those that require resumptives for only embedded subject positions. Languages like Vata, Yoruba and Guébié that require resumptives in all subject positions have been noted in the literature, as discussed above, however, they are often claimed to be rare. We have claimed that Dagbani is in effect a language where resumption is obligatory from the subject position — or more accurately, would be obligatory for the subject position if all else was equal. Yet the reason why it would not be characterised in the same way as, say, Vata, from first glance is that matrix subjects do not make use of resumptive pronouns. Dagbani, as we have seen, has innovated another strategy to allow the subject to move, and thus not violate the HSR. However, when considered embedded subjects we see resumptives being used, productively and obligatorily. Thus, Dagbani does use resumption for the subject position, but it independently is prevented from doing so for the matrix subject position. Based on the discussion at the end of section 6.2, Ewe would be analysed as the same, as well as a lot of languages across West Africa. This in itself is not so surprising: it has been well documented that languages will allow resumptives in the embedded subject position but not the matrix subject position, such as Irish, a fact that is usually attributed to McCloskey's Highest Subject Restriction. Yet, Dagbani differs from Irish, in that it is not the matrix subject that is picked out as special in the sense of not allowing resumption, but rather them embedded subject, since it *does*.

Thus, if we dig a little deeper into the analysis that we put forward here, an interesting, though at this stage speculative, consequence arises, namely that languages with subject only resumption may be more common than originally thought. The underlying syntax that we have claimed to create the conditions for subject only resumption, namely using resumption to allow both Spec,TP and Spec,FocP to be filled, seems to be present in various languages of the West African region. It was this requirement that forced Dagbani to use resumptives for ESF, as that was the optimal way of filling both Spec,TP and Spec,FocP on the surface. Seen at this level of abstraction, then 'subject-only-resumption' languages do not form a homogeneous tiny group of languages, but

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prediction for future work.

[26]Ewe is analysed as tolerating antilocality, but the reader should bear in mind per the above discussion, that an alternative analysis where Ewe is the same as Dagbani. The reader should also bear in mind that the Yoruba derivation in Figure 1 alternates with one where a resumptive pronoun takes the place of the expletive.
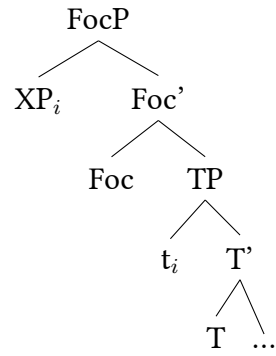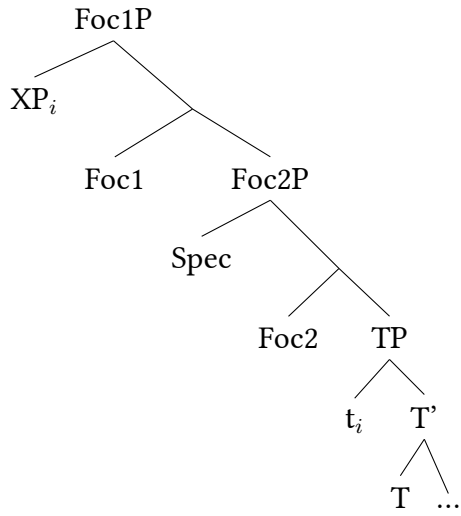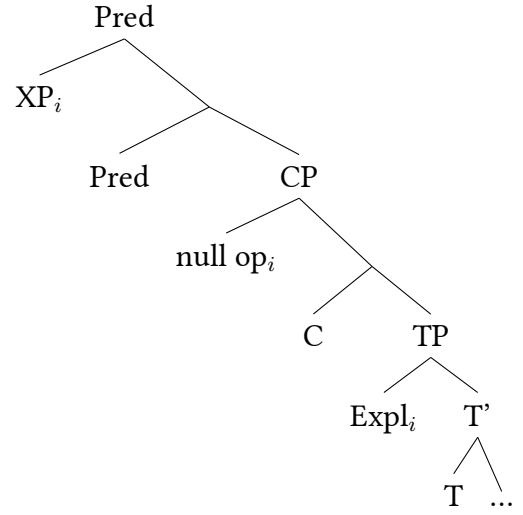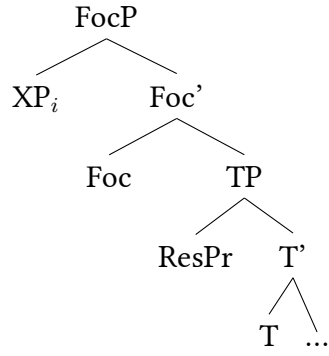
Figure 1: Comparision of MSF strategies for Guébie (top left), Yoruba (top right), Dagbani (bottom left) and Ewe (bottom right)

rather a much larger group that subdivides into smaller groups dependent on which strategy is used to resolve the conflict that matrix subject focus creates.

Recall from above that for Yoruba, Adesola (2010) proposes that the reason why an expletive or resumptive pronoun must be used in Spec,TP when the subject is focussed is because a null-operator in Spec,TP is too weak to satisfy the EPP on T. Suppose that the relevant feature is some kind of D feature (Chomsky, 1995), then they cannot satisfy the EPP on T. By way of contrast, elements like resumptive pronouns and expletives must be assumed to carry a D feature, and the EPP is satisfied.

However, in Dagbani (as well as Ewe), the condition cannot be argued to be as strong as it is in Yoruba, since the matrix subject position can be filled. The question is why, and specifically, what is the difference between the two? We propose that empty-categories can fulfill the EPP in Dagbani and Ewe. This will mean that a trace is sufficient to fulfill the EPP. In matrix subject position then, the EPP can be satisfied by the trace left by moving to Spec,Foc1P (Dagbani) or Spec,FocP (Ewe).

It is important to stress however, that this does *not* mean that a trace will suffice in the embedded subject position. The movement of an embedded subject position to Spec,CP which would be necessary to allow the embedded subject to escape into the higher clause is still banned by antilocality. We have suggested that antilocality can be ignored in Ewe in the case of matrix subjects. This must however, be a last resort option. The possibility of using a resumptive in the lower position to fulfill the EPP of the lower Spec,TP is still preferable, given that it circumvents the necessity to violate antilocality. With regards to Dagbani, the possibility of movement from the matrix subject position is only possible because the complex structure required to allow the subject to escape is found only in Spec,FocP. Thus, if we assume that the intermediate left-peripheries are simple CPs, and that Dagbani does not allow antilocality to be violated, then only matrix subjects will ever end up in the situation where their traces can fulfill the EPP of Spec,TP. Once more, a resumptive is preferred for embedded subject positions, since it can satisfy the EPP of T, without immobilising the subject and preventing it from moving to Spec,FocP.

Thus, it may be possible to paint the difference between a all-subject-only resumption language and an embedded-subject-only resumption language as whether or not a trace or other null category can fulfill the EPP. If correct, we believe this to be an interesting result.

7 Conclusions

To the extent that our characterisation of Dagbani is correct, a number of interersting consequences follow. Firstly, Dagbani provides novel evidence that the problem with moving subjects is that the movement of the subject to the specifier of an immediately dominating projection within CP is because said movement is too short. Once more

syntactic structure is inserted, then the movement becomes possible (see Abels, 2003; Erlewine, 2016; Douglas, 2017). Dagbani thus is representative of a number of Gur languages that has gotten around this issue by innovating a more FocP in order to give the subject somewhere to move to. To some extent, this paper adds to the growing body of literature that has emerged in recent years that pursues the antilocality hypothesis of the difficulty of subject movement. Thus, whilst the overall theoeretical point is not new in this respect, we believe Dagbani (and the other Gur languages identified in section 3.1) to be somewhat unique in the strategy it uses (a double-layered FocP) to get around the conflict of moving from Spec,TP to Spec,FocP. Thus, the paper contributes to the discussion on the myriad of ways that languages have chosen to get around this conflict.

A further contribution of the paper is to highlight the smaller variation that exists in the languages of West Africa in this realm. Our focus throughout has been on Dagbani, and due to space reasons, as well as questions of access to the languages in question, we have not been able to develop the analyses for other languages discussed as far as we would like to. We must therefore leave these somewhat speculative analyses, and their contingent predictions, for future research to confirm, or refute.

Abbreviations

ACC = accusative, C = complementiser, CJ = conjoint, COP = copular, DEF = definite, DJ = disjoint, EMPH = emphatic, F = feminine, FOC = focus, IMPERF = imperfective, LOC = locative, PART = participle, PERF = perfective, PST = past, PL = plural, PROG = progressive, Q = question particle, SG = singular, WH = question particle

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