Towards a Theory of Morphosyntactic Focus Marking

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Abstract

Based on six detailed case studies of languages in which focus is marked morphosyntactically, we propose a novel formal theory of focus marking, which can capture these as well as the familiar English-type prosodic focus marking. Special attention is paid to the patterns of focus syncretism, that is, when different size and/or location of focus are indistinguishably realized by the same form.

The key ingredients to our approach are that complex constituents (not just words) may be directly focally marked, and that the choice of focal marking is governed by blocking.

Keywords

focus, morphological focus marking, focus alternatives, blocking, focus ambiguity, focus in African languages, unalternative semantics

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Towards a Theory of Morphosyntactic Focus Marking

Languages in which focus is marked by special morphemes or syntactic positions (henceforth MorFoc languages) have long been known and also, more recently, well described. Assuming that the pragmatic (and possibly semantic) effects of focusing in such languages should be modelled using alternatives —the same as in the case of the European languages— the question arises: Can the toolbox of focus semantics developed for the latter be applied to the former? This paper argues for a rather radical rethinking of the way we model focus realization, so much so, in fact, that we will start by introducing our approach 'cold', and *then* discuss its relation to more familiar approaches to focus realization. The main tenets of our approach may be sloganized as follows:

No Projection: Any morphological focus marker marks exactly one constituent as focal; crucially, this constituent may be non-terminal and in fact as big as an entire clause.

Blocking: Choose the most specific focus marker that is pragmatically appropriate.

We will elaborate on the ideas behind these in turn.

1 Introducing the Proposal

1.1 Case Study I: Gùrùntùm

As a first illustration, consider the case of Gùrùntùm (also known as Gùrdùŋ), a South Bauchi (West Chadic, Afro-Asiatic) language spoken in Bauchi State in Nigeria by 15.000 people (1993, Eberhard et al. 2019), as described in Hartmann and Zimmermann (2009). The canonical word order is SVO. Gùrùntùm employs a focus marking morpheme *a*, which may occur in three basic configurations. When preceding the subject, it marks subject focus, as in (1).

(1) Q: 'Who is chewing colanut?'
A: **Á** fúrmáyò bà wúm kwálíngálá
FOC Fulani PROG chew colanut
'The Fulani is chewing colanut.' (H&Z, 2009: 1342)

When *a* occurs between the verb and its following argument, as in (2), the sentence can express object focus, narrow verb focus and VP focus. Thus (2) could answer any of the questions 'What is he gathering?', 'What is he doing with the seeds?' and 'What is he doing?'.

(2) Tí bà ròmb-**á** g^{w}éì
3SG PROG gather-FOC seeds.
'He is gathering the seeds.' (H&Z, 2009: 1347)

Lastly, *a* at the end of a clause marks clausal focus.

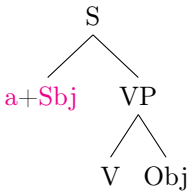
(3) Kóo vùr mɔ́ kãa Mài Dáwà sái tí shí gànyáhú-**à**.
every when Mai Dawa then 3SG eat rice-FOC
'Always, Mai Dawa used to eat rice'. (H&Z, 2009: 1356)

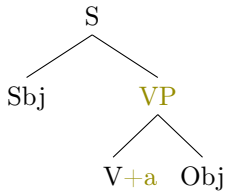
We call such distinct marking configurations FOCAL MARKINGS; depending on the language, focal markings may be distinguished by the placement of focus marking morphemes (such as in Gùrùntùm), but also by different choices of focus marking morphemes, different constituent orders, or, as is familiar from European languages, different intonation.

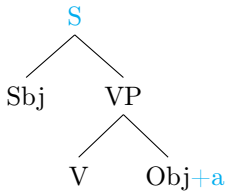
In contradistinction to the form-related 'focal marking', we use the terms 'subject focus', 'object focus', 'VP focus' etc. in a *pragmatic* sense. A sentence is said to express (or simply 'have') X FOCUS (as marked by underlining in the preceding examples and throughout) if it can felicitously be used to correct another sentence S' which differs from S only in that all of X is replaced by something different in S', or if it can felicitously be used to answer a question Q whose wh-element corresponds to X in S (these are the standard diagnostics for 'being the focus'). Where the same sentence/focal marking can express different foci, we speak of FOCUS SYNCRETISM (we avoid the more familiar term 'focus ambiguity' for reasons to become clear in Section 1.2).

1.2 Basic Focal Marking: No Projection

Our analysis starts by stipulating for each focal marking exactly one constituent that is thereby FOCALLY MARKED. This is illustrated for Gùrùntùm in (4).

(4) a. 

b. 

c. 

The focally marked constituent in each tree in (4) is colored the same way as the focus marking morpheme. Focally marking a constituent plays a very similar role to assigning an [F]-marker in theories like Rooth (1992): the focus alternatives of a focally marked constituent are meanings of the same semantic category (type). But there are important differences: first, unlike in standard alternative theories, we assume that focally marked nodes do *not* have their ordinary meaning (the 'trivial alternative', as it is sometimes called) among their alternatives. Second, constituents 'outside' the focally marked ones do not introduce new alternatives; in particular, the sister of a focally marked constituent only has its literal meaning as an alternative (just like [F]-less nodes in Rooth's approach); that way, a focal marking can never realize a focus that is bigger than the focally marked constituent. Third, the set of focus alternatives of a focally marked node may be further restricted by conditions imposed on lower nodes, as we will see.

All of this will be made precise in Section 4. For now, one can think of the focal markings in (4) as focally marking the S, VP and Sbj nodes, respectively, in the same way a pitch accent licenses [F]-marking on a (pre)terminal in Selkirk (1984)'s Basic Focus Rule. We will discuss the relation between the placement of the focus marking morpheme and the constituent it focally marks in Section 3 below; for now we just stipulate them.

(4a) is a rather straightforward case: the subject DP is focally marked, so this is the form to use when one wants to focus the Sbj, i.e. needs non-trivial alternatives to the subject meaning.

In (4b) *a* is taken to directly focally mark VP (rather than V or Obj). But this does not translate into '(4b) is VP focus'. Rather, it translates into '(4b) may be used if VP *or something within it* is the focus'.[1] So in fact, (4b) is syncretic for V, VP and Obj focus.

This is a significant departure from the usual way of thinking about focus syncretism: Rather than saying that the same focal marking, say *V-a Obj*, is structurally ambiguous between V-, Obj- or VP-focus, we take it to unambiguously focally mark VP (the focus size that encompasses all others),

[1] Analogously, (4a) actually marks that the Sbj *or something within it* is the focus; see Section 3.4 below.

which is semantically general enough to allow for all V-only and object-only alternatives. This is why the distinction between the (pragmatic) focus and the focally marked constituent is important: according to our analysis, they do not always coincide. This will be discussed in detail in Section 3.4 below.

Focally marking VP directly in (4b) illustrates what was meant by 'No Projection' earlier: broad foci do not project from narrow foci by specialized projection rules, they are directly licensed by morphological focal marking.

In (4c), finally, the root node is focally marked. This means this structure *can* be used to realize clausal focus. Considering what we just said about (4a), it in fact means that it can be used to mark S *or anything within S* as focus. But as a matter of fact, (4c) can *only* realize clausal focus; it is not syncretic with any other focus size. This is captured by the second ingredient of our proposal, Blocking.

1.3 Blocking

Our proposal is that focally marking the clause in Gùrùntùm in (3) or (5) cannot be used to express Sbj or VP focus (or any other focus smaller than those) precisely *because* Gùrùntùm has specialized focal markings to realize Sbj focus and VP-focus (and hence any foci *within* those constituents as well).

(5) Tí vún lúurìn nvùrì-**à**.
3SG wash clothes yesterday-FOC
'She washed clothes yesterday.' (H&Z, 2009: 1359)

This is the blocking effect. Crucially, this effect hinges on the inventory of focal markings the language has. For example, Gùrùntùm does not have specialized markers for focally marking V or the XP following it within VP; consequently, (2)/(4b) can be used to realize V and XP focus, i.e. the focal marking is syncretic, unlike (5)/(4c). But, to reiterate, the fact that focally marking the clause in Gùrùntùm can*not* mark sub-clausal focus has nothing to do with the way this marking comes about (like focus projection rules), but only, via Blocking, with what other focal marking possibilities the language has.

As stated here, Blocking is a transderivational affair: it compares different realizations of the 'same' clause. While it can in fact be thought of and implemented in that way, our official proposal in Section 4 will translate the entire logic of Blocking into simple local restrictions on focus alternatives.

2 Three Further Case Studies

Before spelling out more details of our analysis, let us briefly illustrate its general workings with three further case studies, namely Buli, Hausa and Wolof.

2.1 Buli

Buli is a Mabia (Gur) language of the Niger-Congo family, spoken by 168.000 speakers in northern Ghana (Eberhard et al., 2019). The canonical word order is SVO. It has three distinct focus marking patterns:[2] a morpheme *(à)lɛ̄*, following the subject (optionally combined with *ká* preceding it), which is used for subject or clausal focus, (6); a morpheme *ká* which precedes the direct object and which marks VP or object focus, (7); and a morpheme *kámā*, following the VP, which marks narrow V focus, (8).[3]

(6) a. Q: 'Who ate a mango?'
A: (ká) Àtìm **alè** dè mángó.
FOC Atim FOC ate mango
'Atim ate a mango.'

b. Q: 'Why are you angry?'
A: (ká) Àtìm **alè** dè n mangó.
FOC Atim FOC ate 1SG.POSS mango
'Atim ate my mango.'

(7) Q: 'What did Atim do?'
'What did Atim eat?'
A: wá dè **ká** mángó.
3SG ate FOC mango
'He ate a mango.'

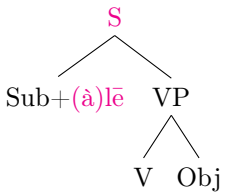
(8) Q: 'Atim hit Amok.'

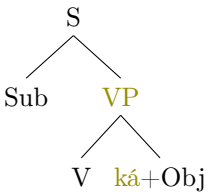
[2]We make no claims about the precise contributions that the building blocks of the focal markings make, as we are interested in the properties of the focal markings themselves, not their morphological, syntactic or phonological realization. For the same reason, we use the gloss FOC for any morpheme that distinguishes some focal marking from another, irrespective of whether that morpheme is, in the final analysis, a dedicated focus marking morpheme.

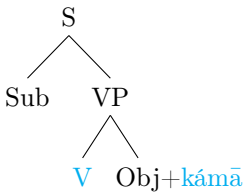
[3]Unless otherwise specified, the data are from our own elicitation work, done by e-mail, Skype and in person with consultants. Aside from translations and felicity judgments with contexts, we also used visual stimuli, which were partly taken from the questionnaire developed by Skopeteas et al. (2006) and partly self-made. Tone is transcribed where the consultants indicated it. We would like to thank XXX

A: Aáya, Atim a lɛ Amoak **kámā**.
no Atim IPFV insult Amok FOC
'No, Atim <u>insulted</u> Amok.'

As with Gùrùntùm, we start by assigning to each of those markings exactly one constituent thereby focally marked:

(9) a. 

b. 

c. 

Following the logic of Blocking introduced above, *(à)lē* in (9a) can be used where S or any subconstituent thereof are the focus, except those for which there are more specialized markings.[4] Since Buli has a specialized way for focally marking VP, (9b), this in effect restricts (9a) to S focus and Sbj focus. By the same reasoning, *ká* in (9b), which focally marks VP, should be useable as VP-, V- or Obj focus; but since there is a specialized V focal marking, (9c), only VP- and object focus are in fact realized by *ká*.

Note that in this way we derive the —from a European point of view— unusual pattern of focus syncretism found in Buli: clausal focus and Sbj focus are realized in the same way.[5] We also derive the more familiar looking syncretism between Obj- and VP focus.[6]

It may be tempting to say that in Buli, subject focus projects to the clausal node. But on the analysis being developed in this paper, it is more accurate to say that subject focus is realized by focally marking the clause.

On the other hand, we also depart from Schwarz (2016) in not generally calling sentences with *(à)lē* 'thetic', since this focal marking clearly appears in categorical contexts (see examples (6a)-(8)). An analysis that claims that *(à)lē* invariably marks theticity would require us to assume that a sentence be formally marked as thetic, i.e. as having no internal information structure,

[4]Since *ká* is optional, whenever we write *(à)lē* one can read it as (*ká*) ... *(à)lē*.

[5]Clausal/Sbj focus syncretism, exotic as it may seem from a European perspective, is quite common in African languages, as well as in other language families; reported instances include Kɔnni (Mabia, Niger-Congo), see Schwarz (2011) and Fiedler et al. (2010); Dagbani (Mabia, Niger-Congo), see Hudu (2009); transitive clauses in Somali (East Cushitic, Afro-Asiatic), see Tosco (2002)); South Marghi (Chadic, Afro-Asiatic), according to K.Hartmann (p.c.); Cuzco Quechua (IIC, Quechuan), see Sánchez (2010) and Muysken (1995); Even (Tungusic), see Matić and Wedgwood (2013).

[6]VP/O syncretism is not limited to Buli. See also: Kɔnni in Schwarz (2011); Kusaal (Mabia, Niger-Congo) in Abubakari (2018); Awing (Grassfields Bantu, Niger-Congo) in Fominyam and Šimík (2017).

while at the same time being interpreted as containing Sbj focus, as typical for categorical sentences. Our proposal allows us to simply analyze *(à)lɛ̄* as focally marking the clause.

2.2 Hausa

In Hausa (West Chadic, Afro-Asiatic), narrow subject focus is obligatorily marked by the relative form on the pre-verbal Person-Aspect-Complex.[7] Optionally, the focus marking morpheme *nee/cee* can occur after the subject, as in (10). If it does, it agrees with the subject in gender, with *cee* for feminine and *nee* otherwise.

(10) a. Kandè (**cèe**) ta-**kèe** dafà kiifii.
Kande FOC 3SG.F-REL.IPFV cooking fish
'Kande is cooking fish.' (H&Z, 2007: 367)

Foci other than narrow Sbj are expressed by the absolute form of the verb (alternatively, non-subject foci may be marked by movement, as discussed in Section 7). Following Hartmann and Zimmermann (2007), we consider the absolute form as the default, i.e., as the absence of a specific marking. An answer like (11) can be used in all new contexts, as well as answering any constituent question, as long as it is not asking about the subject:[8]

(11) Q: 'What is Kande cooking?'
'What is Kande doing with the fish?'
'What is Kande doing?'
'What is happening?'

A: Kànde ta-nàa dafà kiifii (**nèe**).
Kande 3SG.F-IPFV cook fish FOC
'Kande is cooking fish'

Note that the focus marking morpheme *nee/cee* can also be used with non-subject focus. In this case, it always appears sentence-finally, rather than directly following the pragmatic focus, and always in the masculine form,

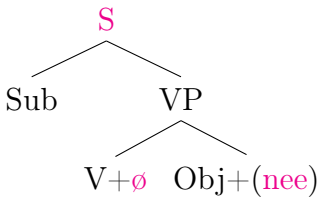
[7]For a full paradigm of the relative form see Newman (2000: 568) or Jaggar (2001: 153). Jaggar (2001) uses the term "focus" rather than "relative". In Future, Habitual and Subjunctive Aspects, the Person-Aspect-Complex isn't sensitive to subject focus. (Hartmann and Zimmermann, 2007: 368, Newman, 2000; Jaggar, 2001)

[8]This pattern, where only subject focus has to be marked, is shared by Tangale (West Chadic) in the progressive aspect, see Hartmann and Zimmermannn (2004); and Tar B'arma (Central Sudanic, Nilo-Saharan(?), also known as Bagirmi), see Jacob (2010). See 29 for exceptions, though.

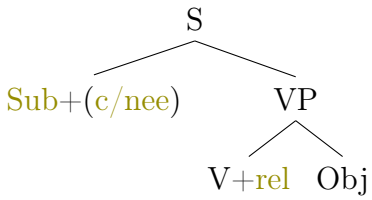
nee. As Green and Jaggar (2003: 198) discuss, these facts together imply that structurally, sentence-final *nee* is indicative of clausal focus, even where pragmatic focus is on a subconstituent. This follows nicely from our analysis, where any kind of pragmatic non-subject focus is realized by focally marking the sentence node. Moreover, Hartmann and Zimmermann (2007: §5) show that there is no prosodic difference depending on what the pragmatic focus is in (11). Thus, S, VP, V and Obj focus are syncretic in the absence of the relative form of the verb.

We take the relative form to focally mark the Sbj, and its absence to focally mark the clause:

(12) a.



b.



The absolute form of the verb focally marks the S node, so (12a) may express clausal focus, but also any other non-subject focus. The language has a dedicated Sbj focal marking available for (part-of-)subject focus, so Blocking prevents the clausal focal marking from expressing narrow Sbj focus. Note, however, that the structure in (12b) only applies when the Sbj is a narrow focus; (12a) is felicitous when the Sbj is *part of* a larger focus (e.g. clausal focus). This will be explored in more detail in Section 6.2.

2.3 Wolof

Wolof is an Atlantic (Niger-Congo) language spoken predominately in Senegal and the Gambia by approximately 5 million people (Eberhard et al., 2019). It has SVO(X) word order.

Focus in Wolof is marked on what Robert (1991) has termed the Person-Aspect-Mood (PAM) marker, which occurs pre- or post-verbally and encodes subject person and number, aspect and mood. Furthermore it changes depending on whether the focus is a subject, verb/VP or non-subject. The marker that indicates subject focus, such as *maa* in (13a), consists of a subject pronoun, *ma* in (13a), followed by the morpheme *a*. The marker that indicates non-subject focus consist of an additional *l* preceding the *a*-morpheme and a subject pronoun, which in (13b) is reduced to just *a* instead of *ma*. Verb and VP focus are signaled by a marker consisting of *da(f)* followed by the same *a*-morpheme and a subject pronoun, which in (13c) is zero for third person singular. Details on how the PAM markers can be decomposed can be found

in Torrence (2013: §2). The paradigm of focal marking is illustrated in (13).

(13) a. **Maa-y** lekk jën
FOC.1SG-IPFV eat fish
'I eat fish.' (McLaughlin, 2004: 247)

b. Jën **laa-y** lekk
fish FOC.1SG-IPFV eat
'I eat fish.' (McLaughlin, 2004: 247)

c. **Dafa-y** lekk jën.
FOC.3SG-IPFV eat fish
'He is eating fish.'

Verb and transitive VP focus are marked in the same way in Wolof, i.e., (13c) can answer both the question 'What is Omar doing?' and 'Is he buying fish?'. This is another syncretism we don't find in e.g. Germanic languages.[9]

Clausal focus, depending on the aspect, is expressed using the perfective aspect or progressive/presentative markers which have been analyzed as 'non-focusing' conjugations by Robert (2010).[10] clausal focus with the progressive is illustrated in (14) and with the perfective in (15). Like in Gùrùntùm this marking is not syncretic with anything else.

(14) Q: 'What is happening?'
A: Mungi naan ndox.
3SG.PROG.PROX drink water
'He is drinking water.'

(15) Q: 'What happened?'
A: Fatou bind na téére.
F. write PFV.3SG book
'Fatou wrote a book.'

We will henceforth only use the perfective aspect marker to illustrate clausal focus in Wolof.

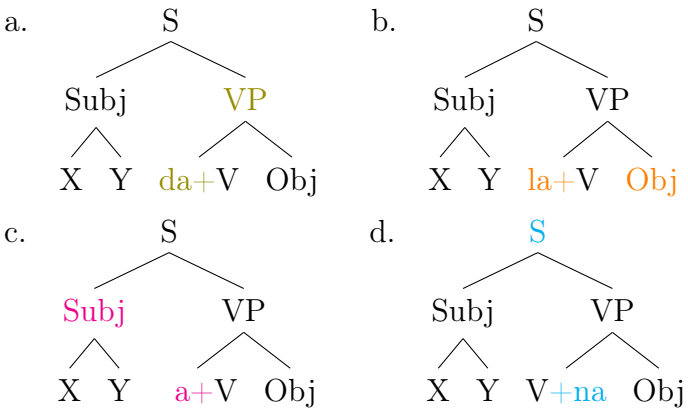
As can be seen in (13b), object focus in Wolof is not just indicated by the PAM marker, but also by movement of the object to a clause-initial position. In fact, according to Martinović (2013) *la* is only a reflex of movement, which

[9]Other languages with VP/V syncretism include: Joola Karon, see Galvagny (1984); Sambou (2008), and Joola Foñy, see Gero and Levinsohn (1993), (both Atlantic, Niger-Congo), Ewe (Kwa, Niger-Congo), see Ameka (2010); Dagbani , see Hudu (2009); Soninke, see Diagana (1987); Creissels (2017); Ngamo (West Chadic, Afro-Asiatic), see Grubić (2015).

[10]However, in certain situations subject focus marking can also be used to convey a pragmatic clausal focus. See footnote 29 for more information.

is the actual marker of focus. Focus movement will be discussed in Section 7. For now, leaving movement aside, the trees showing the syncretisms in Wolof look as in (16):

(16)



We analyze *da* as marking the VP as focal, (16a), while the construction with *la* marks the object as focal, (16b). By Blocking, this prevents focal marking on the VP from expressing object focus. However, since there is no focal marking that marks the verb as focal, VP focus and verb focus are syncretic in Wolof. *A* focally marks the Sbj, (16c). *Na* marks the sentence as focal, and, since every other node has a more specific marker, can only be used for clausal focus, (16d). For more details on the Wolof focus marking system see Njie (1982), Robert (1989, 2010), Ngom (2003), Torrence (2013) and Martinović (2015) among others.

These case studies conclude the first, informal sketch of our proposal. Our theory designates, for each focal marking, one node thereby focally marked. The designated node thus sets the maximal size of focus that can be realized by the marking in question. In principle, any node dominated by ('included in') the designated node could also be 'the focus', subject to Blocking. The minimal size of a focus is thus systematically determined by the maximal size of any other focus marking in the language.

Note that the latter concept, the 'minimal size' of focusing indicated by a given marking, is alien to familiar focus theories, as the minimal size of focus for *any* marking in European languages appears to be the word or morpheme. But this is evidently not the case e.g. in Gùrùntùm, where the minimal size of focus realized by a clause final *a* is the entire clause.

3 Comparison With Existing Accounts

3.1 Existing Approaches

Most descriptive works on MorFoc languages, such as the ones we quote in this paper, are cast in terms of 'the focus in sentence S is on constituent X, and is realized by…' (see eg. the survey in Kalinowski, 2015). The analysis presented in the previous sections started from basically that perspective, adding a number of theoretical refinements, in particular: how to derive patterns of syncretism (answer: focally marking vs. focus), and, at the same time, how to predict when a narrow, rather than a broader focal marking will realize a particular focus (answer: Blocking).

Theoretical questions like these are of course at the heart of various accounts of focusing in English. We believe that, once we adjust such theories to the specific challenges posed by MorFoc languages, the proposal outlined in the previous sections is in fact a quite conservative adaption of them —despite its radically different appearance. We will now trace the way from existing theories to the present proposal; for reasons of space, however, we need to take a rather abstract perspective. As our stand-in for any number of theories for English, we will take a theory that is based on (17).

(17) Focus Theory E(nglish):
Any constituent that contains the word bearing the nuclear pitch accent and displays 'default prosody' internally may be the focus of a sentence.

We distinguish, where necessary, two sub-types of such theories: those that take the 'default prosody' mentioned in (17) to be exclusively determined by morphosyntactic factors such as linear order, syntactic category, or embedding (this fairly accurately describes a long line of theories starting from Jackendoff, 1972: and including, with various variations on the theme, Truckenbrodt, 1995; Zubizarreta, 1998; Reinhart, 2006 a.o.); and those that take default prosody to be itself a matter of [F]-marking, subject both to specific projection rules and pragmatic conditions (e.g. Selkirk, 1984, 1995; Rochemont, 1986; Schwarzschild, 1999).[11]

[11] On these theories, only [F]-marked terminals may bear pitch accents, so it follows that the *nuclear* pitch accent is part of a focus; furthermore, for any given context (in particular: any pattern of which elements are given and which are not) the focus projection rules uniquely determine one and only one NPA position, so despite the fact that the NPA plays no official role in these theories, the characterization in the FocusTheoryE in (17) nevertheless is accurate.

3.2 Two general predictions

Both sub-types of FocusTheoryE in (17) make two predictions:

Uniform Marking Prediction: There is some property that holds equally of *any* focus; in the Germanic case: that it bears the NPA.

Downward Syncretism Prediction: Any broad (i.e. multi-word) focus is syncretic to one or more smaller foci.[12]

From both predictions combined it furthermore follows that exactly one one-word focus will be syncretic with any broader focus (since no two subconstituent of X can bear the NPA at the same time).

These predictions appear accurate for the Germanic languages and other languages (such as Slavic ones) for which such approaches have been developed. But they are not correct for the MorFoc languages analyzed here, as we will now discuss.

Starting with the Uniform Marking prediction, the pertinent property shared by all foci, at least in the great majority of MorFoc language, would seem to be that they contain a focus marking morpheme, where by 'contain' we mean that the focus marking morpheme is either attached to them (in the case of narrow foci) or contained in them (broader foci). This, for example, reasonably accurately describes the systems of Gùrùntùm or Aymara (to be discussed in Section 5).[13]

But there is a systematic class of counterexamples to the prediction that all foci contain a focus marking morpheme, namely *disjunctive focus syncretisms* and *exocentric foci*, which will be elaborated on in the following subsections.

3.2.1 Disjunctive Focus Syncretisms

In our discussion of Gùrùntùm we already saw one case of what we may call, descriptively, a DISJUNCTIVE FOCUS SYNCRETISM. Recall that a sentence

[12]To see why, note first that 'having default prosody' is preserved under syntactic dominance: if a constituent X has default prosody, then any subconstituent Y of X also has default prosody (within it). Second, if X contains the NPA, then *some* subconstituent(s) of X contains the NPA, so by FocusTheoryE in (17), Y, too, could be the focus of S (which subconstituent Y that will be depends, of course, on the default, so there is no universal prediction at this level of abstraction).

[13]There are complications, as in the case of Buli, where we have different focus marking morphemes depending on the grammatical function of the constituent that is focally marked, and where in the case of focally marking V, it is not clear what local relation holds between the verb and the focus marking morpheme in a transitive clause. Perhaps such 'quirks' of marking can be predicted, too, but for the time being we will not dwell on this point, which seem equally challenging for *any* approach to focus realization, the present one included.

containing a VP of the form *[$_{VP}$ V-**á** DP]* is syncretic with V, Obj and VP focus.[14]

(18) Tí bà ròmb-**á** g^{w}éì
3SG PROG gather-FOC seeds.
'He is gathering the seeds.' (H&Z, 2009: 1347)

Generally, the hallmark of a disjunctive syncretism is that the same form may express focus on either constituent A or constituent B, where A and B are disjoint from one another; in the case of Gùrùntùm, either V or Obj may be the focus when the marker occurs between them.

The syncretism of V and Obj focus directly contradicts the Uniform Marking prediction: While one of them contains the focus marking morpheme *á*, the other one clearly doesn't (and this holds independently of which of the two is taken to actually contain the focus marking morpheme).

This form of syncretism is not familiar from European languages: foci on two disjoint constituents (e.g. verb vs. direct object) are never realized by the same form. They are, however, fairly common in the languages of the world. For example, it has repeatedly been observed for various languages that focus marking morphemes tend to attach to immediate constituents of the clause. Different foci, say, *within* an object are marked identically, as in the following examples from Buli and Imbabura Quechua.[15]

(19) A: 'The boy is riding a red moped'.
B: Aáya, wá a do **ká** puupuk sogluk.
No, 3SG IPFV ride FOC moto dark
'No, he is riding a black moped.' (Buli)

(20) A: 'The boy is riding a blue moped.'
A': 'The boy is riding a red moped.'
B: Aaya, nidoa-bini a do **ká** kutug-wusum sogluk.
no male-small.DEF IPFV ride FOC iron-horse dark
'No, the boy is riding a blue bicycle.' (Buli)

(21) 'Juan does not only like green apples',

[14]This syncretism is also found in the perfective aspect in the related language Tangale (Chadic, Afro-Asiatic, see Hartmann and Zimmermannn 2004.)

[15]Part-of-DP and full DP are marked identically in several languages, such as Hausa (Hartmann and Zimmermann, 2007); Wolof (see Appendix A.2); Kusaal (Abubakari, 2018); Dagbani (Hudu, 2009); Ngamo (Grubić, 2015) and Cuzco Quechua (Sánchez, 2010). For the more English-like pattern, i.e. when part-of-DP and full DP are marked differently, see the discussion of Soninke in Section 6.1.

pay-ka puka mansana-kuna-ta-pash-**mi** gushta-n.
he-TOP red apple-PL-ACC-ADD-FOC like-PRES
'he also likes <u>red</u> apples.' (Imbabura Quechua; Tellings, 2014: 4)

(22) 'Juan does not only like red <u>apples</u>',

pay-ka puka ubas-kuna-ta-pash-**mi** gushta-n.
he-TOP red grape-PL-ACC-ADD-FOC like-PRES
'he also likes red <u>grapes</u>.' (Imbabura Quechua; Tellings, 2014: 4)

In both cases, the same focal marking may realize focus on any sub-part of the DP, or the entire DP. Note that in Buli the focus marking morpheme occurs to the left of the DP, even if the focus is post-nominal, whereas in Quechua it appears at the right edge of DP, even if the focus is pre-nominal. So while in Gùrùntùm one might at first suspect that the placement of the focus marking morpheme *between* the two parts of the VP masks a syntactic ambiguity (whereby it is either attached to the left or to the right), no parallel ambiguity analysis would seem motivated for the Buli and Quechua cases.

Such cases, then, show that not *every* narrow focus contains a focus marking morpheme, and therefore directly contradict the Uniform Marking prediction.

3.2.2 Exocentric Focus

A glaring counter-example to the Downward Syncretism prediction is found in what we will call EXOCENTRIC FOCUS, illustrated by clausal focus in Gùrùntùm in (23), repeated from (5).[16]

(23) Tí vún lúurìn nvùrì-**à**.
3SG wash clothes yesterday-FOC
'<u>She washed clothes yesterday.</u>' (H&Z, 2009: 1359)

The hallmark of an exocentric focus is that it can only focally mark a *complex* constituent; put differently, an exocentric focus is not syncretic to any one-word focus. Given the Downward Syncretism prediction it should be obvious that existing theories are ill-equipped to handle exocentric foci: depending on your favorite way of thinking about them, they either have potential foci go 'down' to the word that bears the NPA, or have it project 'up' from a pitch

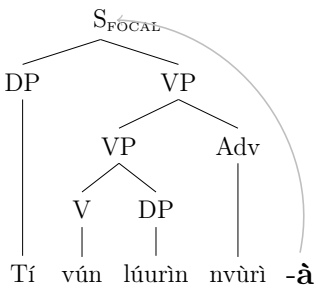
[16] Another language in which this can be found is Ewe, where a complete lack of prosodic and morphological marking can only indicate clausal focus (Fiedler and Jannedy, 2013). Furthermore, exocentric focus also occurs with the marker *na* in Wolof, see Section 2.3.

accent on a word.

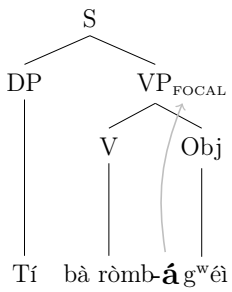
3.2.3 The Common Cause, and the Solution

We submit that the problem, in both cases, lies with the assumption in FocusTheoryE in (17) that the 'original' focal marking would need to be on a word (or preterminal). Once we allow a focal marking to *directly* focally mark a complex constituent, as our proposal does, both disjunctive syncretisms and exocentric foci are analyzed straightforwardly. (24a) and (24b) show this for exocentric clausal focus and disjunctive VP/V/Obj focus in Gùrùntùm, respectively.

(24) a.



b.

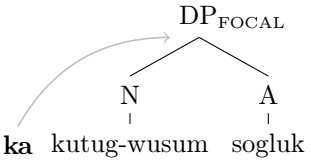


Note that now in (24a) and (24b) all *focally marked* nodes (but not all foci realized by them) do have a common property: they contain the focus marking morpheme.

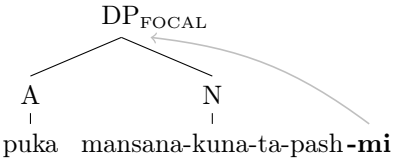
One obvious question remains: why does (24a) result in an exocentric focus, while (24b) results in a disjunctive focus? The short answer is: Blocking. Gùrùntùm has focal markings for Sbj and VP, which block (24a) from realizing Sbj and VP focus; but it doesn't have focal markings for V and Obj, which is why (24b) has to be used to realize any focus on a node dominated by the focally marked one. We will discuss this in detail in section 3.4 below.

For completeness' sake, (25) gives the representations for the DP internal disjunctive foci in Buli and Imbabura Quechua (cf. (19) – (22) above).

(25) a.



b.



Conceivably the focal marking assumed here translates directly into *syntactic* attachment, that is, the arrows in (24) and (25) are in fact branches of the phrase markers. This is attractive in that it helps to address the questions how focally marking is to be implemented and what the relation between the

focus marking morpheme and the focally marking it expresses is; but evidently this requires a substantial amount of morphology–syntax mismatch, for which we lack independent evidence; we will therefore stay agnostic regarding this question.

It should be pointed out that an analysis of disjunctive focus syncretism along the lines of (24b)/(25) directly makes a number of predictions, owing to the fact that the apparently disjoint foci are taken to be just subparts of one encompassing focally marked constituent:

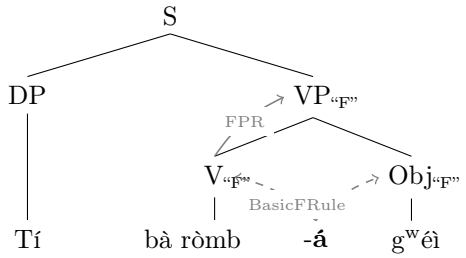
(26) If disjoint constituents A and B may be marked as narrow foci by the same focus marking
   a. a broad focus composed of A and B will be marked in the same way
   b. if the smallest constituent containing A and B contains another (disjoint) constituent C, a broad focus consisting of A+C, B+C or A+B+C will also be marked in the same way

As far as we can tell, these predictions are borne out.[17]

This concludes our discussion of Uniform Marking prediction and Downward Syncretism prediction. We have argued that the most conservative extension of English-type focus theories is to give up the assumption that focal markings necessarily involve marking words, rather than phrases. In the context of focus projection theories (such as Selkirk, 1984, 1995; Rochemont, 1986; Schwarzschild, 1999) this amounts to introducing Basic Focus Rule(s) that

[17]No similar predictions are made if we literally treated disjunctive focus syncretisms as *ambiguities*. Imagine for example that the V+**á**+Obj marking in Gùrùntùm were analyzed as marking *either* the V or the Obj as focus, as indicated by the dashed lines in (27).

(27)



Nothing predicts that the focus on either one of those constituents should also be able to project at all; so an independent focus projection rule (FPR, solid gray line) would need to be assumed; but nothing would guarantee that the latter is part and parcel of every language that has ‘ambiguous focus marking’.

mark complex constituents; for other kinds of approaches this would be trickier, but could be done by *syntactically* attaching the focus marking morpheme to complex constituents.

3.3 Defaults, Syncretisms and 'Strange Projections'

Let us now turn to the question if and how the 'default prosody' part of FocusTheoryE in (17) could be adapted to the case of MorFoc languages. In looking for a 'default prosody' equivalent for MorFoc languages, let us contemplate its *function* in the overall focus marking system of English: the default will be crucial to decide which of several subconstituents of a broad focus will bear the NPA. For example, VP, rather than Sbj, will contain the NPA in English clausal focus (though in either case the NPA would be within the focus) because *by default* the VP is 'stronger' than the Sbj. And within the VP, the object is by default 'stronger' than the verb, etc.

A different but equivalent way of saying this is that defaults in English are essential for determining which narrower focus a broad focus is syncretic with. These characterizations holds regardless of whether one thinks of defaults as purely structural —such as 'right is stronger than left'— or in terms of dedicated focus projection rules. For the sake of the following discussion, we will phrase the question in terms of the latter perspective: which nodes may 'project' focus, and which may not?

Turning to MorFoc languages, two observations are crucial in this context: First, regarding their patterns of syncretisms, MorFoc languages differ greatly, not just from English, but also from one another. Second, unlike in English, where default strength in the sense relevant here is correlated one-to-one with metrical strength, MorFoc languages show no such correlates.

Elaborating on the first observation, recall, for example, that in Buli, clausal focus and *subject* focus are syncretic ('subject focus projects') as (28) (echoing our earlier (6a)).

(28) Q: 'Who ate the mango?'
'Why are you angry?'
A: (ká) Atìm **alè** dè mángó.
FOC Atim FOC ate the mango
'<u>Atim</u> ate mango.' (Buli)

Similarly, we already saw that, depending on the language, VP focus may be syncretic to V focus, Obj focus, or to both. The full range of syncretism

patterns discussed up to this point is summarized in Table 1.

	English	Buli	Gùrùntùm	Hausa	Wolof
Syncretisms					
S focus =	VP, Obj	Sbj	–	VP, V, Obj	–
VP focus =	Obj	Obj	V, Obj	V, Obj	V

Table 1: Patterns of focus syncretisms differ widely.

It thus seems clear that the question of 'who gets to project?' cannot be answered universally by something like 'the right sister', 'the complement' or 'the branching sister'. Nor, we think, can its answer be derived from other properties of the language in all cases, which brings us to the second observation from above.

In English, 'default strength' manifests independently of focus marking (i.e. the NPA): even in the background of a subject focus, it is well motivated to say that the object is stronger than the verb, as it still bears more *stress* than the verb, which speakers can hear, and instruments can measure; likewise, in a complex subject preceding a VP focus, the head noun notably (and measurably) bears more stress than a prenominal adjective. So it makes sense to say that the object bears the NPA in VP focus *because* it is 'stronger by default' than the verb, because it *is* demonstrably stronger than the verb, even when it *doesn't* bear the NPA.

In the case of MorFoc languages no such independent correlates of 'strength' have been reported, and where researchers have looked for them explicitly, they haven't succeeded (see e.g. Hartmann and Zimmermann 2007, §5, or Rialland and Robert 2001, §2). Put plainly, an object in, say, a Buli subject focus sentence does not bear an additional focus marking morpheme *ká*, as a marker of its 'strength' inside VP, nor any other property distinguishing it and other 'strong' elements from their 'weak' sisters.

For these reasons our analyses of MorFoc languages did not include a counterpart to 'default strength' (*pace* Büring, 2010). Instead, we coded the syncretism patterns directly when determining which of the constituents containing it a focus marking morpheme is taken to focally mark: Buli *Sbj+(à)lɛ̄* is analyzed as a *clausal* focal marking—rather than a subject focal marking which for some reason can 'project' to S— whereas the relative form in Hausa indeed focally marks just the subject (and hence does not 'project'). Likewise, we analyzed *da+V* in Wolof as VP focal marking (since it 'projects'), but *V... kámā* in Buli as V focal marking (since it doesn't).

Perhaps future research will find independent properties that distinguish focal markings that project —or the phrases that host the focus marking

morphemes used in them— from those that don't, parallel to metrical strength in English; this would enable us to derive, rather than stipulate, when a focal marking goes 'high' and when it doesn't.

Until then, and given that we assume for independent reasons that complex constituents can be focally marked directly (i.e. without the mediation of 'projection rules'), it seems both more parsimonious and more transparent to employ that same property of the system to analyze sycretism patterns/'projection', without invoking defaults or 'strength'.

3.4 Oversize Foci

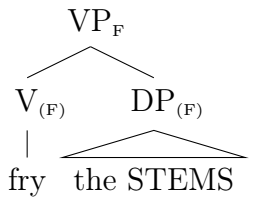
Our analysis, in particular its account of various unusual forms of syncretisms discussed in sections 3.2 and 3.3, relies on the possibility of 'oversize foci'. By that we mean that in a context in which, say, a narrow V focus needs to be expressed, it is instead the VP that is focally marked. Our final point of comparison with existing theories regards this feature of our proposal, and the use of Blocking to constrain it. As there is no mention of anything like Blocking in FocusTheoryE in (17), one might get the impression that this is where our proposal adds a genuine complication. But this is not the case: every complete theory of focusing will involve something comparable, as we shall discuss now.

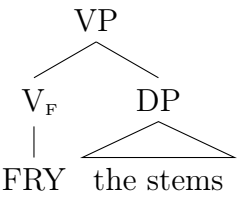
We start by pointing out that oversized foci are technically possible in any version of alternative semantics we are aware of, all of which support the following lemma: the alternatives assigned to $[_{\mathrm{A}}\, B\ C_{\mathrm{F}}]$, as well to $[_{\mathrm{A}} B_{\mathrm{F}}\ C]$, are a subset of the alternatives assigned to $[_{\mathrm{A_F}}\, B\ C]$. In words: If [F]-marking a constituent B yields the contextually required focus alternatives, [F]-marking any bigger constituent A that includes B will do the job as well.[18] The same is true for focally marked nodes in the present proposal, as long as we ignore Blocking.

Yet it is also well-known that there must be limits to this. Otherwise, it is predicted that a focally marked VP could always be used in narrow-V or Obj focus contexts; and a focally marked clause should be usable in *any* context whatsoever. But this is of course wrong. Consider for example (29): the VP focus structure in (29a) leads to an NPA on the object, which is completely unacceptable in this context; only the structure in (29b) should be predicted to be acceptable.

(29) Do you steam the stems? — No, we...

[18] See Schwarzschild 1993, Truckenbrodt 1995:§4.4., Krifka 2001:§2, Büring 2016:ch.3–4 for further discussion.

a. # 

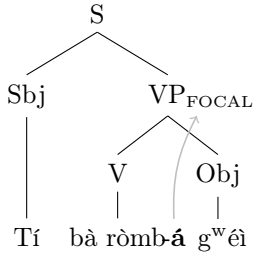
b. 

But on regular alternative theories, by the lemma just mentioned, there is no alternative that (29b) has, but (29a) doesn't. So what rules out (29a)?

The standard solution is to block oversized foci by some kind of 'shrink-to-fit' clause that will enforce the use of a 'smaller' focus if (pragmatically) possible. For example, Schwarzschild (1999)'s AvoidF principle will rule out (29a) in the context of the question in (29), because (29b), too, allows the alternative required in the context (that we steam the stems), while using fewer [F]-markers (for Schwarzschild, following Selkirk, 1995: a VP focus with accent on the Obj requires the parenthesized Fs on V and the Obj in (29a), or at least the latter).

We call AvoidF and its kin 'shrink-to-fit' clauses, because in effect they will always force focal marking on exactly the (pragmatic) focus, rather than some bigger ('oversize') constituent *containing* the focus. In our proposal, Blocking plays a role analogous to AvoidF; however, as stated at the outset of this section, it will not always yield a 'shrink-to-fit'. For example, for Gùrùntùm, we proposed that in a case parallel to (29), (30) (repeated from (2)), the VP, rather than V, is focally marked, as shown in (30).

(30) Q: 'What is he doing with the seeds?'
A: Tí bà ròmb-**á** g^{w}éì
3SG PROG gather-FOC seeds.
'He is gathering the seeds.'



Recall that this was crucial in accounting for the fact that the same focal marking is used for VP and Obj focus as well (disjunctive syncretism). The 'oversize' focus is *possible*, we argued, because Gùrùntùm does not *have* a focal marking for narrow V focus, so VP (30) is indeed the smallest constituent that allows V alternatives *for which there is a focal marking*. So while the focally marked constituent is still bigger than the focus, Blocking did make the focal marking 'shrink-to-the-closest' (which is why clausal focal marking couldn't be used here).

By the same token, a focally marked complex DP consisting of A and N will not compete with a narrow N or a narrow A focus (recall the discussion of examples (20)–(22) in Section 3.2.1) *unless the language has a distinct*

way of marking those. Put generally, we predict disjunctive focus syncretisms whenever among two (or more) sister nodes, neither has a dedicated focal marking.[19]

This logic is perhaps more easily appreciated by looking at the schemata in Figure 1; each of them represents the focal marking system of a whole language, by overlaying their individual focal markings (compare (9) and (4)). For each colored node there is a distinct focal marking (using the focus marking morpheme of the same color). Each such focal marking may realize focus on the node so colored, or any node dominated by it, *down to the next colored node*.

Figure 1: The focus markers of Buli and Gùrùntùm. The constituent focally marked by each marker bears the same color as the marker itself.

Buli *Sbj+(à)lɛ̄* (magenta) can thereby mark focus on S (all new) or on the Sbj, or any part X or Y thereof; but it can*not* mark a VP focus, for which there is a special focal marking (olive). Focally marking the clause in Gùrùntùm, on the other hand, (cyan) cannot be used for Sbj focus, since in those one must use the more specific Sbj focus marker (magenta); nor can it be used for VP focus (or any part thereof), for which there is another specialized marking (olive). Focally marking VP in Gùrùntùm, as discussed at length in Section 3.2.1 may mark VP, V or object focus, as there are 'focally markable' nodes within VP; in Buli, on the other hand, focally marking VP is restricted to VP or object focus, whereas V focus must be expressed by the yet more specialized V focus marker (cyan).

Returning to English, we now show that the apparent 'shrink-to-fit' versus 'shrink-to-closest' distinction is in fact an epiphenomenon. At every branching node, English has the option to focally mark a daughter, by making it metrically strong when, by default, it would be weak (see Section 6.1 for details). As seen in Figure 2, the result is that English has distinct focal

[19]Generally, we predict syncretisms *simpliciter* exactly where there isn't a distinct focal marking for *each* sister.

markings for Sbj, V, and, in general, any constituent that is by default metrically weak (usually the left).

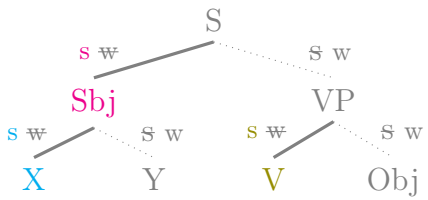


Figure 2: English. At each branching node, a weak-by-default daughter may be focally marked by making it metrically strong (Prosodic Reversal, which usually will result in the focally marked node bearing the NPA), indicated by 's ~~w~~' above the node. The strong-by-default (here: right) daughter, accordingly is DEMOTED to weak.

So whenever the focus is a default-weak element in English, we do indeed get focal marking exactly for the focus ('shrink-to-fit'). Where it is default-strong, however, we actually get oversize foci. For example, focus on Y in Figure 2 is realized by focally marking Sbj, but not Y itself (since Y is default-strong and hence has no dedicated focal marking): Sbj focus and focus on the rightmost element *within* the Sbj are syncretic. The same holds for S, VP and Obj focus: they are marked in the same way (by default stress, or, if you will, focally marking the clause).

A shrink-to-fit principle like AVOIDF will force additional formal distinctions between these syncretic foci ('narrow Obj versus VP versus S' etc.) in terms of different [F]-markings, *which, however, have no effect on the prosodic realization* (whence the syncretism). We know of no empirical reasons to assume that they are in fact grammatically distinguished in the same way, say, a narrow V focus and a transitive VP focus are (see the discussion in Büring, 2015). So in fact, English, just like MorFoc languages, shows the 'shrink-to-closest' signature that Blocking predicts. Perhaps —because English uses metrical relations, rather than focus marking morphemes, for focal marking— there are more occasions on which the focus itself can be focally marked in English than in MorFoc languages, but in many other cases, shrink-to-fit in English is simply an illusion caused by marking a distinction in the [F]-marking that has no corresponding distinction in the actual realization.

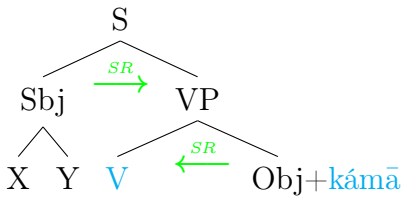
We can also explain now why English has neither exocentric foci nor disjunctive syncretisms, even if analyzed entirely parallel to MorFoc languages: as discussed in Section 3.2, these patterns emerge when among sister nodes there is either a dedicated focal marking for *each* (exocentric, think: clausal focal marking in Gùrùntùm), or for *none* (disjunctive, think: VP focal marking

in Gùrùntùm), see again Figure 1. For English, this would amount to all sisters being default weak (so that any of them could be focally marked by making it strong), or all being strong (so that none could). But metrical strength being an inherently relational concept, neither of those can exist. Casually speaking, a system based on the metrical weak/strong distinction, like English, cannot help but having a designated focal marking for at least one, but not all, daughter(s) of a branching node.

4 Blocking and Restrictions

We now turn to our official implementation of the analysis proposed here. We use the machinery of Unalternative Semantics (Büring, 2015), as it allows us to implement Blocking locally (i.e. without operations that literally compare different clausal structures). The idea is very simple: our earlier 'X is focally marked' means that X has alternatives, and any node c-commanding X does not (note that this is what is usually meant by 'be the focus'). As an example, (31) shows how a focally marking V in Buli is represented in UAS.

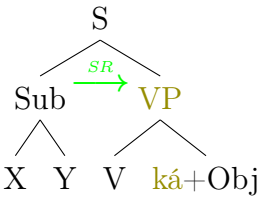
(31) (Buli)



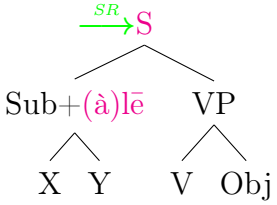
The green arrows in (31) mark Strong Restrictions (SRs): 'X $\xrightarrow{SR}$ Y' means 'Y has alternatives, X does not'. In keeping with what was said above, focally marking V in (31) comes down to saying 'V has alternatives, Obj does not' (lower $\xleftarrow{SR}$), and 'VP has alternatives, Sbj does not' (higher $\xrightarrow{SR}$; note that if a constituent X has alternatives, constituents containing X necessarily have alternatives as well, just as in standard alternative semantics). In the same vein, (32) shows what it means for VP and S, respectively, to be focally marked (note that (32b) is the limiting case where there are no higher or c-commanding nodes, so that the SR boils down to 'this node has alternatives').

(32) (Buli)

a.



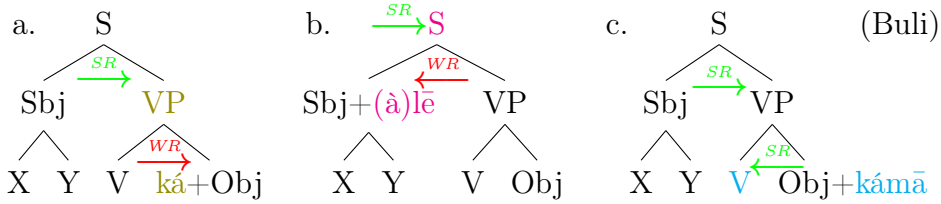
b.



Now, (32a) and (32b) express focal marking, but they don't express Blocking yet. (32a) has VP focally marked, but it could still be used to express narrow V focus, as discussed at length in section 3.4 above; by the same token, (32b) as it stands could express any focus whatsoever. That is, the SRs used so far yield the same result that [F]-marking V, VP and S, respectively, would.

This is where Weak Restrictions (WRs) enter the picture. A WR 'X $\xrightarrow{WR}$ Y' says: 'X can have alternatives only if Y does', or put differently: 'X is not a narrow focus'. To encode that narrow V focus is *not* expressible by ('blocked in') (32a), we add a WR towards the Obj, as in (33a); likewise, the blocking of VP focus in (32b) is represented by a WR from VP to S in (33b). On the other hand, narrow marking on V, (31), is already fully determined by the strong restrictions and stay the same, repeated in (33c).

(33)



(Buli)

The WRs in (33) still correctly allow V and VP, respectively, to be *part of* a larger focus (namely VP and S), but not to be 'the' focus. In particular note that (33a) now correctly predicts that *ká +Obj* may be used for VP or Obj focus, but not narrow verb focus, and that (33b) can be used for S focus (=Sbj+VP) or narrow Sbj, but not VP focus.

Crucially, the placement of the WRs in (33) is predictable: it corresponds to the placement of the SRs in (31) and (32a), respectively. This expresses the complementarity of the focal markings: *not* marking narrow V focus is tantamount to marking a 'not-narrow-V' focus, and not marking a VP focus, to marking a 'not-narrow-VP' (or 'not-just-VP') focus.

It bears emphasizing that the Weak and Strong Restrictions in our analysis are just mnemonics for which composition rule for focus alternatives is to be applied at any particular branching node. They do not need to be part of the actual syntactic representation. The precise algorithm for assigning restrictions (or, alternatively, for deciding which rule to apply) is given in (34).

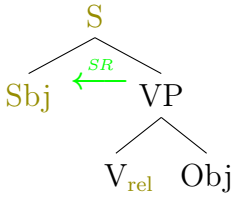
(34) If a node X is focally marked...

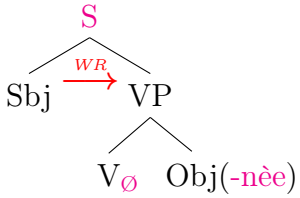
a. (i) apply a strong restriction towards X

(ii) and any node dominating X within the same clause (MorFoc languages only, see Sec. 6)

b. apply a Weak Restriction away from any node(s)
   (i) for which there is a focal marking in the language,
   (ii) which are not restricted by (34a), and
   (iii) for which there is no node that meets (34b-i) and (34b-ii) that dominates them

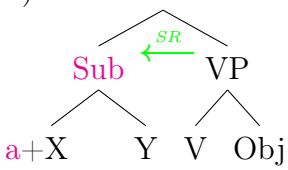
The recipe in (34) captures all the languages we discuss in this paper. For example, Hausa has a focal marking for the Sbj, (35a), so accordingly the clause with a focus marking morpheme following the VP, (35b), at least when used as S/VP/V/Obj focus), has a WR from Sbj to its sister VP.

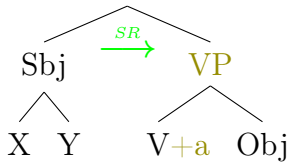
(35) a. 

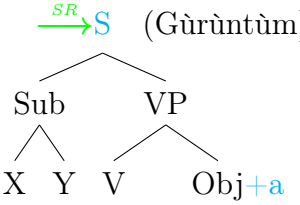
b. 

(Hausa)

In the case of Gùrùntùm, recall, we have Sbj, VP, and S focal markings.

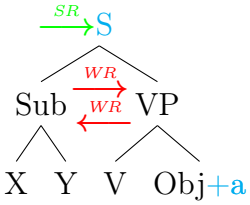
(36) a. 

b. 

c. 

(Gùrùntùm)

By (34), in particular (34b-ii), neither of Sbj and VP focus can 'block' the other (i.e. introduce a WR); so (36a) and (b) are the final representations for these focal markings. In the case of (36c), on the other hand, (34b) has us add WRs from both Sbj and VP, as shown in (37): for both there is a focal marking (clause (34b-i)), neither has a SR already (clause (34b-ii)), and there are no other nodes for which there is a focal marking 'between' them and S (clause (34b-iii)).

(37) 

(Gùrùntùm)

What $\overset{WR}{\underset{WR}{\rightleftarrows}}$ in (37) expresses is that either Sbj and VP both have alternatives, or neither of them do. The latter option is incompatible with the SR on S, which says that the clause has alternatives, so (37) correctly encodes that this focal marking can be used for clausal focus, but neither Sbj nor VP focus.

To sum up this section: The restriction patterns in (31), (33a)–(36b) and (37) represent the same information as our informal analysis, but directly at the level of alternative generation/composition, voiding the need for Blocking, as well as recipes of the sort 'find the lowest node that contains the focus and can be focally marked'. Crucially, we can 'generate' the restriction patterns using only the information used before: which node a given focal marking focally marks (to place the SRs), and what other focal markings there are in the language (to place the WRs).

5 Two Final Case Studies

In this section we further illustrate our approach by way of applying it to two more languages which represent syncretism patterns not so far discussed.

5.1 Aymara

Aymara, an Aymaran language, spoken by about 2-3 million people around Lake Titicaca (Klose, 2015), displays a syncretism between V, VP and S. This is different from Wolof-type languages discussed in Sections 2.3 and 3.3, in which focus is only syncretic between V and VP, but not S.[20]

Focal marking in Aymara is indicated by the evidential marker *-w(a)* (sometimes realized as *-w*),[21] which in all cases appears to focally mark the constituent to its left. Accordingly, since Aymara is SOV, clausal, V and VP focus in declarative sentences are all realized by post-verbal/sentence-final *wa*. According to Hardman et al. (1988) Aymara sentences are always marked for evidentiality, and thus, also focus.[22] Sentence, verb and VP focus are

[20] S/VP/V syncretism can also be found in Efik (Delta Cross, Niger Congo), see Cook (2002); it is also found in intranstive Somali clauses, where VP focus is marked the same way as clausal focus (Tosco, 2002).

[21] *-wa* is only used in declaratives. Other suffixes are used for constituent and polar questions, but they all show the same pattern (Hardman et al., 1988).

[22] There are different analyses for the *wa*-marker and there seems to be variation of its use across Aymara (M. Coler p.c.). Homola and Coler (2013) gloss it as a marker of new or non-predictable information. According to Klose (2015) the *wa*-marker is not actually a focus marker, but only associates with focus. Nothing in our analysis hinges on this however, cf. Footnote 2.

illustrated in (38), (39) and (40) respectively.

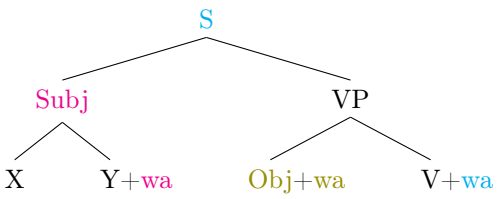
(38) Q: 'What happened?'
A: Maria-x wawa-r t'ant' chur-i-**wa**.
Maria-TOP baby-ALL bread give-3-FOC
'Maria gave bread to the baby.' (Hardman et al., 1988: 281)

(39) Manq'a-k-i-**wa**.
eat-EXCL-3-FOC
'(She didn't make it!) She just ate it!' (Klose, 2015: 70)

(40) Jani-wa futbola-ki-t gust-k-i-ti, challwa katu-ña
no-WA futbol-EXCL-ABL like-NCOMPL-3-TI fish fish-INF
gusta-raki-**wa**
like-ADD-FOC
'He doesn't only like football, he also likes fishing.' (Klose, 2015: 70)[23]

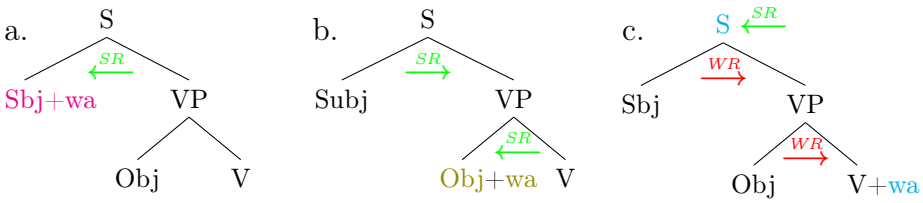
In all three examples *-wa* appears sentence-finally after the verb. Subject, object and indirect object focus are marked by *-wa* attaching at the right edge of each constituent respectively, thus creating no syncretism.[24] Furthermore, like the focal markings of other languages discussed in this paper, *-wa* can only appear once per clause (Coler, 2014). (41) summarizes these patterns.

(41)



The Aymara pattern can be captured with Strong and Weak Restrictions, as introduced in Section 4 as in (42).

(42)



[23]Though (40) may look like an object focus in the English translation, Klose (2015) analyses it as VP or clausal focus.

[24]Though *-wa* may disappear in some environments, see Klose (2015) for more details.

5.2 Awing

The final type of language to be discussed here displays the limiting case of focal marking pattern, namely one where *no* two foci need to be formally distinguished. That is, anything can be the focus, when there is no marking whatsoever (languages of this type usually have ways of optional focal marking, see Section 7 for some examples). This is found in Awing, a Grassfields Bantu (Niger-Congo) language spoken in the Northwest Region of Cameroon by 20,000 speakers (Fominyam and Šimík, 2017), but also in Ngamo (Grubić, 2015), Akan (Kwa, Niger-Congo) and Ga (Kwa, Niger-Congo) (Grubić et al., 2019). Though these languages do have morphemes involved in focal marking, focus is often unmarked when it is not contrastive or exhaustive, i.e., when it is an answer to a constituent question rather than a correction. An Awing example is given in (43), where the unmarked sentence can answer any of the questions asked.

(43) Q: 'What did Alombah cook?'
'What did Alombah do with the maize?'
'What did Alombah do?'
'Who cooked the maize?'
'What happened?'

A: Alombah a-pe'-náŋnə ŋgəsáŋə̀.
A. SM-PST-cook maize
'Alombah cooked maize'.
(Awing; Fominyam and Šimík, 2017: 1038)

Note that even the unmarked subject can be the focus in these languages, which thus differ from Hausa, Tangale and T'ar Barma in Section 2.2. This pattern can also be captured by Restrictions, namely by simply positing the complete absence thereof, resulting in what we may call 'completely disjunctive clausal focus'. This is effectively the opposite of English, where there has to be a Restriction at every branching node: when there are no Restrictions, anything can have alternatives.

The various focal marking patterns discussed so far are summarized in Table (43), where syncretic foci are marked by identical color (see Appendix B for more languages that exhibit one of these patterns).

Despite the variety, we hope to have shown that there is a common, consistent logic behind all of these systems, based on direct focal marking and Blocking. The variation can be reduced in its entirety to one factor: For which nodes in the clause does the language have a designated focal marking?

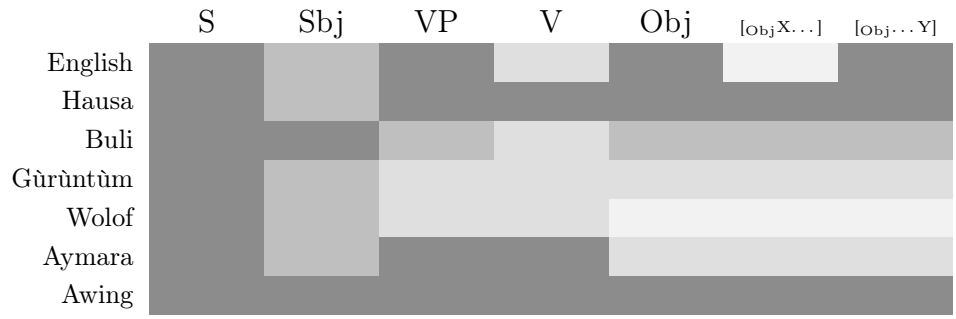


Table 2: A more comprehensive table of focus syncretisms.

As we demonstrated, all of these patterns can also be modelled locally by Strong and Weak restrictions.

It is also worth pointing out that not everything goes: According to our analysis, syncretisms will always involve continuous sections of the tree, such as S+Sbj, S+VP, VP+V, VP+Obj etc., and combinations thereof. Technically, the sets of nodes focally marked in the same way are always closed under immediate dominance; there could be no focal marking for, say, S and Obj, but not VP. Also, as long as we ignore optional focus movement, there is always exactly one focal marking for any given focus (i.e. no cell in Table (43) has two different colors in it).

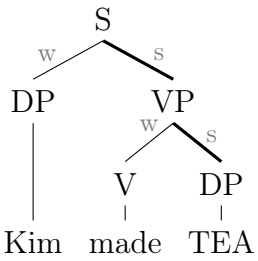
We sidestepped, in the interest of generality, many interesting issues having to do with different kinds of focal marking systems and the related question of how the placement of the focus marking morpheme relates to the focally marked node in general. Overall, we have come across three different types of MorFoc languages: those where the same focus marking morpheme appears in different positions, like Soninke, Gùrùntùm, Aymara and Quechua; those in which different focus marking morphemes occur in the same position, like Wolof and Hausa; and those that have both different markers and different positions, like Buli, Kɔnni, Dagbani and Kusaal. Presumably, these distinctions aren't without consequences for the way focal marking works in each language. We hope to return to these aspects in future work.

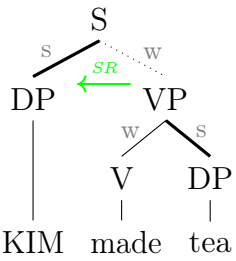
6 Multiple focal markings

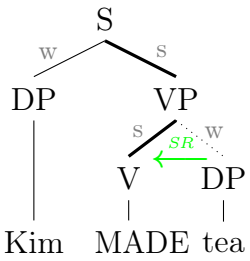
In this section we present some more complex focal marking patterns found in MorFoc languages and discuss their implications for the overall theory. But first, as a point of comparison, we briefly turn to English.

6.1 English

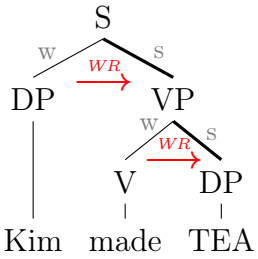
Unalternative Semantics assumes that PROSODIC REVERSAL is the marker of focality in English; that is, reversing the metrical strength between sister nodes from the default (weak–strong in most cases) to the marked pattern focally marks the newly strong node. (44a) shows the prosodic default pattern for a transitive sentence, while (44b) and (44c) show prosodic reversal at the S and VP node (the weak branch is dotted to visualize that this is a non-default structure), respectively, and the resulting SRs focally marking the Sbj/V, and marking the VP/Obj as non-focal.

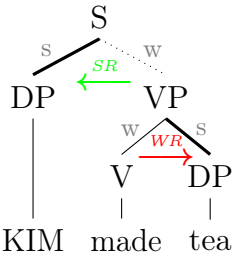
(44) a. 

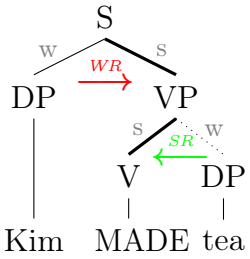
b. 

c. 

Now, to each focal marking (prosodic reversal) in (44) corresponds a WR when it is *not* present, so the complete restriction patterns for English are the ones in (45).[25]

(45) a. 

b. 

c. 

As the reader can verify, the structures in (45) predict precisely the focal markings found in English and the foci they may realize. The same machinery we used for MorFoc languages captures the familiar type of focus marking.

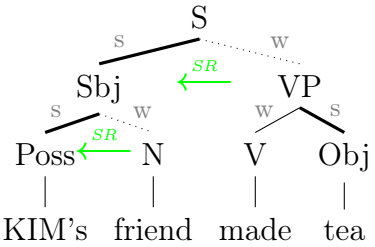
Note that our analysis of English also follows 'No Projection', as e.g., the Sbj in (45c) is directly focally marked; the ultimate location of stresses and pitch accents is a consequence of the overall metrical pattern, but the focal marking is on phrasal nodes, locally determined by the weak/strong relations

[25]The WR in (45c) is in fact redundant: if V has alternatives (as demanded by the SR pointing towards it), so does VP; thus the restriction 'if the subject has alternatives, so does the VP' (expressed by the WR from Sbj to VP) is trivial since its consequent is necessarily true.

(relative to the default).

There is a rather fundamental difference between a language like English and the MorFoc languages, though: English may use several instances of focal marking within the same clause. Consider, as an example, the realization of a possessor focus within a Sbj.

(46)



In order to mark the possessor as the focus of the clause, two instances of prosodic reversal are necessary: Prosodic reversal at the S level marks that Sbj is focal and VP is not; prosodic reversal *within* the Sbj marks the possessor as focal, and the head noun as non-focal. Nothing comparable occurs in MorFoc languages; as we saw, for example, narrow V focus in Buli cannot be expressed by *combining* the VP focus marker and the V focus marker (hence the focal marking for narrow V focus has to roll both functions into one, as in (31) above).

We can see the difference even more minimally in Soninke, a Mande (Niger-Congo) language spoken by about 2,100,000 million speakers in and around Mali. In Soninke, unlike in the languages discussed in Section 3.2.1, a possessor within DP *can* be uniquely focally marked, as in (47).[26] But crucially, (47) shows a *single* focus marking morpheme on the possessor to achieve the same restriction pattern as in (46) above, not one on the possessor and another one on the Sbj;[27] again, a single focal marking corresponds to two Strong Restrictions.

(47) Umaru **ya** renme n (***ya**) da lemine ke katu daaru
Oumar FOC son DET FOC TR child DEM hit yesterday
'Oumar's son hit the child yesterday.' (Diagana 1987:62)

This is why we introduced the 'MorFoc languages only' clause (34a-ii)) in the

[26]Another language that does not have DP and part-of-DP syncretism when focal marking is employed is Ga (Ameka, 2010).

[27]The marker *ya* is placed after the Sbj in Soninke if the Sbj as a whole or the rightmost element of the Sbj is to be focally marked, so there is nothing wrong with the placement in (47) *per se*, only with the co-occurrence of two focus marking morphemes in the same clause.

algorithm for assigning restrictions in (34). Only by automatically pointing a Strong Restriction towards *every* node that c-commands the focally marked one can a language like Soninke mark a narrow focus like that on the possessor in (47) despite allowing only one instance of focal marking. Note that the same effect manifests in the difference between English (44c) and Buli (33c): focally marking V in Buli amounts to making V 'the focus' of the clause, reflected in two Strong Restrictions; in English, V is focally marked within VP alone, by *one* Strong Restriction, allowing S's daughters Sbj and VP to have the default Weak Restriction (cf. (34b-ii). This difference between 'once per clause' focal marking in MorFoc languages and 'once per branching node' in languages like English, Dutch or German has various consequences for the patterns of focal marking in MorFoc languages, to which we now turn.

Two consequences have already been discussed in Section 3.2, namely disjunctive syncretism and exocentric focus. Since English places restrictions at every branching node, one can never have no restrictions between any two nodes, nor bidirectional restrictions like in (37). As a result, focus syncretisms in English are never disjunctive, and always concentric.

6.2 Discontinuous Foci

Another consequence of the 'once per clause/once per branch' difference seems to manifests in certain cases of DISCONTINUOUS FOCI. In English and other Germanic languages, a focus consisting of Sbj+V in a transitive clause is syncretic with narrow V focus.

(48) (This cake came from the supermarket. —) No, a friend BAKED this cake.

This is predicted by structure (45c) above: the V has alternatives, the Obj does not, and the Sbj may if the VP does. Put differently, focal marking of V is compatible not just with narrow V focus, but also with a larger (Sbj+V) focus, because in both cases V is the only element with alternatives *in VP*.

In the MorFoc languages for which we have Sbj+V focus data, namely Wolof, Hausa, Buli and Cuzco Quechua, Sbj+V focus is invariably marked the same way as clausal focus.[28] This, too, is what we expect if focal markings in MorFoc languages mark the focus within a clause, rather than within any

[28]While in English it is rather easy to find all kinds of discontinous foci such as Sbj+Obj focus, we found that in Wolof and Hausa, speakers use biclausal constructions in such cases instead (see examples in Appendix A.1). Therefore, we will only use Sbj+V data.

sub-constituent thereof: any other focal marking would mark some smaller constituent as the only element with alternatives *in the clause*, and since there is no smaller constituent than S containing both Sbj and V, one of them would inevitably end up wrongly without alternatives.

For Hausa this means that Sbj+V focus sentences show the absolute form on the verb, i.e. look like VP, V or S focus sentences, but crucially not like Sbj focus.

(49) Q: 'Can I borrow your car?'
A: A'a, wasu yaara sun saata ta.
No some children 3PL.PFV steal 3SG.F.O
'No, <u>some children stole</u> it. (Hausa)

Similarly, in Wolof Sbj+V focus, as in (50a), is marked by the same Person-Aspect-Mood morpheme that is used in clausal focus, *na*, in (50b).

(50) a. Q: 'What happened to Jean?'
A: Alkaati bi jàpp **na** ko/Jean.
police.officer DET catch PFV.3SG O.3SG/J.
'<u>The police officer arrested</u> him/Jean.' (Wolof)
b. Q: 'What happened?'
A: Fatou bind **na** téére.
F. write PFV.3SG book
'<u>Fatou wrote a book.</u>' (Wolof)

Crucially, this focal marking is different from that used in narrow foci in Wolof, e.g. the focus marking morpheme *moo* focally marking the Sbj in (51).

(51) Q: 'Who did that?'
A: Musa **moo** ko def.
M. FOC.3SG 3SG.O do
'<u>Moussa</u> did it.' (Wolof)

In Buli and Cuzco Quechua, on the other hand, Sbj+V focus is marked the same way as Sbj focus, but crucially, this is also how clausal focus is marked. Consider (52) and (53).

(52) Q: 'Did Atim eat the mango?'
A. Aayá, (**ká**) Amoak **alé** pa dá!
no FOC Amok FOC take sell
'No, <u>Amok sold</u> it! (Buli)

(53) Q: 'What happened to the bread?'

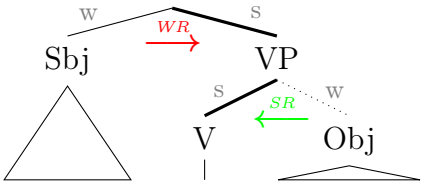
A: Huwan-**mi** t'anta-ta mkuru-ru-n.
Huwan-FOC bread-ACC eat-PFV-3SG
'Juan ate the bread.' (Cuzco Quechua; Sánchez 2010: 62)

As in Buli (cf. Section 2.1 above) clausal focus in Cuzco Quechua is syncretic to Sbj focus (Muysken, 1995), as shown in (54).

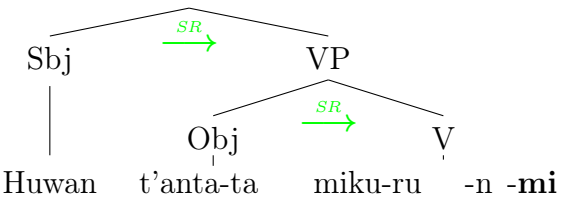
(54) Pidru-**n** wasi-ta ruwa-n.
Pedro-FOC house-ACC make-3
'Pedro builds a house.' (Cuzco Quechua; Muysken, 1995: 381)

In other words, a pattern in which Sbj and Sbj+V focus are marked in the same way, but clausal focus is marked differently, is not attested.[29] The generalization appears to be that, as in the case of disjunctive foci, MorFoc languages use the focal marking that focally marks the (smallest) constituent containing all parts of the focus, which in the case of Sbj+V is the clause. To see why Sbj+V focus is syncretic with V focus in English, but not in MorFoc languages, and how this follows from the 'once-per-clause' vs. 'once-per-branch' distinction, consider the trees for focally marked V for English and Cuzco Quechua:

(55) a. (English)



b. (Cuzco Quechua)



In English, (55a), prosodic reversal at VP makes V strong and thereby marks it as the only element with alternatives *within VP*; there is no additional focal marking at the S level in (55a), so there is a default Weak Restriction towards to VP, allowing the subject to be part of a bigger, Sbj+V, focus. In

[29]Note, however, that sometimes clausal focus is marked identically to Sbj focus in Hausa and Wolof. This was already observed by Hartmann and Zimmermann (2007: 18) for Hausa and by Robert (1989: 10) and Fiedler (2013) for Wolof, and is also attested in our data in Sbj+V focus sentences (see Appendix A.3, A.4). The details of when this happens are still unclear to us. Nevertheless, it seems that all these examples have an extra pragmatic import, such as unexpectedness or surprise, or that they convey misfortune and (dis)appearance (as has been observed in English in Allerton and Cruttenden (1979)). The crucial difference with languages like for example, Buli, is that in Buli, clausal focus is *always* marked the same way as Sbj focus.

the seemingly parallel Cuzco Quechua structure (55b) (ex. (15) from Sánchez 2010: 63, structure added), *-mi* on the V marks V as the only element with alternatives *within the clause*; this is expressed by the additional Strong Restriction at the S level, formally required by the 'MorFoc languages only' clause (34a-ii); as a consequence, Sbj can*not* be part of the focus in Cuzco Quechua and (55b) cannot realize Sbj+V focus.

This effect applies generally: focal marking in MorFoc languages fixes the maximal size of the focus within the clause, focal marking must go to the lowest constituent containing all parts of the focus; in English focal marking only fixes the maximal size of the focus among its sisters, so nodes c-commanding the focally marked node are unaffected by it and can, other things being equal, introduce alternatives of their own.

6.3 Multi-Clausal Focus Structures

In the previous section we argued that a fundamental difference between MorFoc languages and prosodically marking languages like English is that the former mark focality once per clause, while the latter do at every branching node. As a consequence, prosodically marking languages allow for discontinuous foci to be syncretic with narrow foci, while in MorFoc languages discontinuous foci will be syncretic with the closest 'Oversize Focus' containing all elements with alternatives, usually the clause.

Yet this does not mean that MorFoc languages are restricted to one focal marking per *sentence*. Our data contain some instances in which we find single foci with double focus marking in multi-clausal structures, such as (56) in Hausa.

(56) A: (Cewar ya-nàa bugàa kàree nan **nèe kèe**
COMP 3SG.M-IPFV beat dog DEF.PROX FOC REL.IPFV
sâ taa fushi.
cause 3SG.F.PF be.angry
'That he (i.e., the boy) is beating the dog makes her angry.')

B: A'a, [cewa(r̃) tsooho nàn **nee** ya-**kèe** bugàa
No COMP old.man DEF.PROX FOC 3SG.M-REL.IPFV beat
kàree-n-nàn] **kèe** sâ tà fushii.
dog-LINK-DEF.PROX REL.IPFV put 3SG.F anger
'No, that <u>the old man</u> is beating the dog makes her angry.'

In (56) both the embedded and the matrix clause show the relative form *kèe*, signalling subject focus (in addition the embedded subject is focally marked

by the focus marking morpheme *nee*). The entire example is a correction, and the focus is the subject of the subject clause, *tsooho nàn*, 'the old man'. This straightforwardly explains the relative/focal marking in the embedded clause. But why the focal marking in the matrix clause? The answer is that, within the *matrix* clause, the subject clause is the only element that has focus alternatives (namely the ones introduced by the embedded subject; just as in standard alternative semantics, focality is 'inherited' under dominance). And as such it needs to be marked —like any narrow subject focus— by focal marking, as shown in Figure 3. The situation is thus analogous to an English case like (46), where the possessive is focally marked by prosodic reversal within the DP, and the subject is focally marked (but not 'the focus'!) by prosodic reversal at the level of the clause.

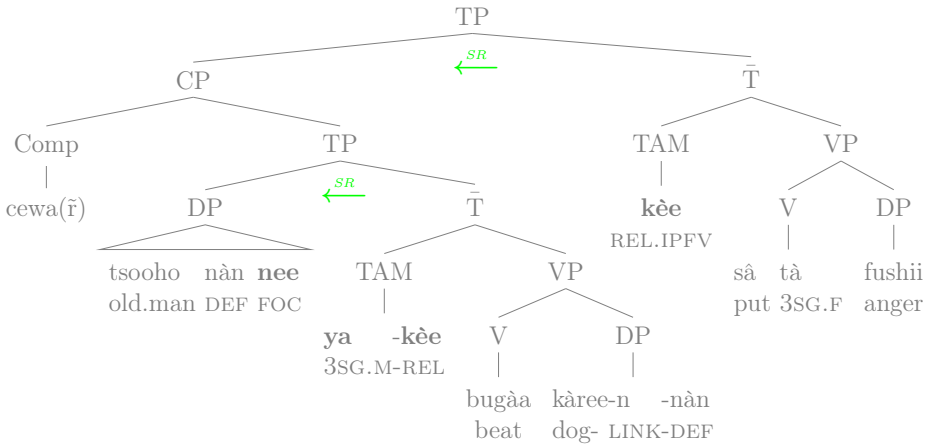


Figure 3: Hausa 'that the old man is beating the dog makes her angry' (with TP/T̄ replacing the earlier S from the simpler trees). One focus, two clauses, two focal markings. Compare to the (mono-clausal but otherwise parallel) English case in (46) above.

The Wolof example (57) shows a parallel configuration with an object clause.

(57) Q: 'Is he buying fish?'
A: Déédéét, **dafa**-y lekk jën **laa** wax.
no VFOC.3SG-IPFV eat fish CFOC.1SG say
'No, he is eating fish I said'. (Wolof)

(57) is a correction answer embedded under 'I said'. Again, the focus is clearly the embedded verb *lekk*, 'eat', and the embedded verb is marked accordingly by the predicate focus marking morpheme *dafa* in the embedded clause. Since,

similar to the Hausa example (56), the only element with alternatives in the *matrix* clause is the object clause, that entire clause is focally marked in the matrix, by preposing and the marker *laa*.

The crucial point in both (56) and (57) is that there is only *one* focus, not two. That nonetheless there are *two* focal markings is due to the fact that the focus sits in a clause within a clause, and therefore even in a 'once-per-clause' marking language, there are two occasions on which to mark focality. Again it is instructive to point out the parallelism with the English case in (46) (*KIM's friend made tea*), where also we have a single narrow focus (on the possessive), but two instances of prosodic reversal.

Before closing we should point out that an embedded clause with alternatives is not always focus marked in Wolof: we also found examples analogous to (57) without the focal marking in the matrix clause, which is unexpected given what we said so far. We suspect that the lack of focal marking in the matrix clause is because the domain of the embedded focus is the embedded clause alone, rather than the matrix.[30] Closer investigation of this, however, has to await a future occasion.

7 Movement

In this section, we briefly discuss focus movement, indicating how we can capture the basic facts with restrictions. In general, there are two different kinds of focus movement: Optional movement of a focused constituent, often associated with some additional pragmatic effect; and obligatory movement that is part of the language's focus marking paradigm, the case we will start with.

7.1 Wolof

Object focus in Wolof is always fronted:[31]

(58) Q: 'What did you buy?'

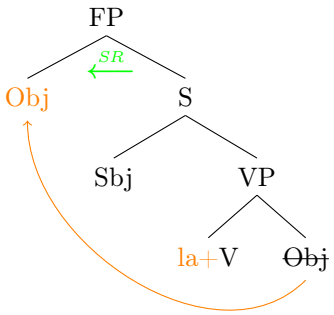
[30] As discussed in Assmann et al. (forthcoming), when the embedded focus is a second occurrence focus, no matrix focal marking of the clause containing it is found; this is what we would expect, since the domain of the embedded focus is just the subordinate clause; the question is whether something like this could also be possible in 'first occurrence foci', i.e. where the embedded clause is not contextually given.

[31] In fact, this holds for any DP focus, including, according to Martinović (2013, 2015), subject focus with a different PAM marker. We restrict ourselves to object focus for the following discussion.

a. Jën **laa** jënd-oon
fish FOC.1SG buy-PST
b. #**Dama** jënd-oon jën
FOC.1SG buy-PST fish
c. *__Laa__ jënd-oon jën
FOC.1SG buy-PST fish
'I bought fish.' (Wolof)

Example (58c) shows that object focus in Wolof cannot occur *in situ*. Using the restrictions introduced in Section 4, we model this as in (59):

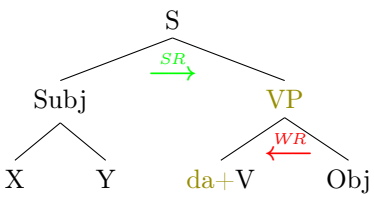
(59)



The moved object is interpreted as a narrow focus, represented by the strong restriction pointing towards it. While we do not commit to any particular view on whether this strong restriction is brought about by a semantic property of the F head or by the semantics of some covert operator that triggers the movement, it is clear that the strong restriction holds whenever the focus position is filled.

When the object isn't moved, an interpretation as pragmatic object focus with the 'closest' focal marking, VP focal marking *da-*, is impossible, (58b). This follows if we assume a weak restriction within the VP:

(60)



While the weak restriction in (60) doesn't follow from the algorithm in (34), it still conforms to the general pattern of Blocking: The existence of a dedicated focal marking for object focus prevents focal marking on a higher constituent from expressing pragmatic object focus. This reflects that fronting of the object is just part of the focus marking paradigm of Wolof. This is not always the case, however, as the case of Hausa shows.

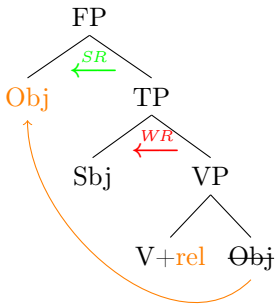
7.2 Hausa

In addition to in-situ focus as in (61a) (cf. Section 2.2), Hausa also allows for optional focus fronting in (61b) (see discussion in Hartmann and Zimmermann, 2007).

(61) Q: 'What is Kande cooking?'
a. Kànde nàa dafà kiifii **nèe**.
K. IPFV cook fish FOC
b. Kiifii (**nèe**) Kànde (ta-)**kèe** dafàawaa.
fish FOC K. 3SG.F-REL.IPFV cook.VN
'Kànde is cooking <u>fish</u>.' (Hausa)

The fronted constituent, *kiifii* ('fish'), in (61b) is interpreted as a narrow focus, represented, again, as a strong restriction pointing towards the focus position in (62).[32]

(62)



As (61a) shows, this movement is optional; theoretically this means that the possibility of fronting the object does not block object focus from being expressed in situ with focal marking on the clause in Hausa. Accordingly, there is no WR from the in situ Obj to the V (see (35) above). This makes

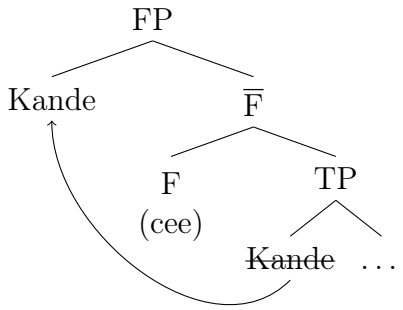
[32]The weak restriction in (62) is only there for theoretical consistency: Since TP is on the tail end of a strong restriction, neither it nor its daughters can have non-trivial alternatives in any case.

sense if focus fronting in Hausa is not part of the focus marking paradigm, but rather an independent operation that coincides with focus because of some semantic or pragmatic overlap between the meaning of focus and the meaning of fronting (see Hartmann and Zimmermann, 2007: §3.3).

For many languages in our sample, it has been claimed that subject foci string-vacuously move from the canonical subject position to a higher position in the left periphery. As an example we discuss the case of the subject in Hausa; according to Green (2007), Hausa Sbj focus examples like (63a) have essentially the structure in (64), with the relative form on the verb as the reflex of movement rather than a marker of focus.

(63) Q: 'Who is cooking fish?'
a. Kandè (**cee**) ta-**kèe** dafà kiifii
Kande FOC 3SG.F-REL.IPFV cooking fish
b. #Kànde ta-nàa dafà kiifii (**nèe**).
Kande 3SG.F-IPFV cook fish FOC
'<u>Kande</u> is cooking fish.' (Hausa)

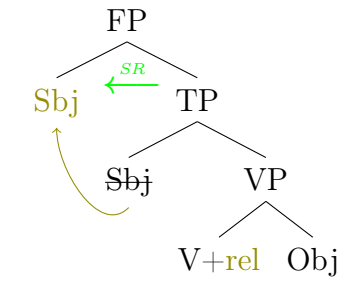
(64)



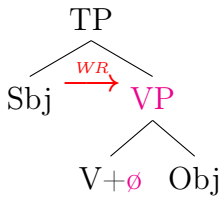
This analysis is plausible, as a comparison between (61b) and (63a) reveals: In both cases, the focused constituent precedes an optional focus marker above the subject position, in both cases that focus marker agrees in gender with the focused constituent, and in both cases the verb shows the relative form.

Adopting this analysis makes Hausa subject focus, (65), completely analogous to Wolof object focus in (59)/(60). Within Hausa, Sbj and fronted Obj focus are assigned parallel structures —compare (65a) to (62) —, but only the Sbj has a corresponding WR in its *in situ* position —(65b). This makes focally marking the subject (by movement) obligatory, while object fronting remains optional.

(65) a.



b.



While we can thus *model* the difference between obligatory and optional focus movement (presence vs. absence of a WR in the base position), we cannot *predict* their distribution; the algorithm (34) predicts movement to be optional in all cases, while the general logic of Blocking suggests that it should always be obligatory. Hopefully, future research will shed more light on this issue.

8 Conclusion

In this paper we have laid out a theory of focus marking that applies equally to MorFoc languages and prosodically marking languages. Our aim in doing so is to connect up work on focus marking in MorFoc languages to the *theory* of focus, as developed for English and other European languages, and in particular to have the former inform the latter. And indeed, a theory able to capture both types of languages forces us, we believe, to make certain choices regarding the analysis of prosodically marking languages, in particular that complex constituents, not just words, may be directly focally marked, and that the distribution of focus syncretisms is best understood in terms of blocking.

We implemented these ideas in terms of Strong (focal marking) and Weak (blocking) Restrictions, into which the focal marking patterns of the languages can be directly translated. This makes the proposal formally concrete, and provides a strictly local implementation of seemingly transderivational constraints like Blocking (or focus minimization). The gist of our proposal, however, —direct marking and blocking— is independent of this implementation.

We argued that direct marking should take the place of focus projection rules, and that Blocking is the more generally appropriate form of something like 'minimize focus'. This allows us to capture the pecularities of MorFoc languages (such as exocentric foci, disjunctive syncretisms and 'strange projections') while at the same time preserving insights of previous analyses of prosodically marking languages.

Our proposal predicts that patterns of focus syncretism are systematically

restricted: each focal marking will end up marking a 'continuous' set of constituents in a tree as possible foci: the focally marked node plus, possibly, one or more nodes immediately dominated by it, plus, possibly, nodes immediately dominated by those, and so forth. The difference to 'traditional focus projection' patterns is, as pointed out in Section 3, that syncretic markings don't necessarily 'go all the way down' to a single word; they may include more than one single word focus (disjunctive syncretism) or none at all (exocentric focal marking). Other predictions follow from the nature of the focal marking systems under investigation, particular the 'once-per-clause' *versus* 'once-per-branching-node' nature of the languages involved, as discussed in section 6.2.

In many regards, our study is still exploratory. We based our proposal on data from a range of MorFoc languages, not least in the hope that even if a particular datum turns out to be different from what we know so far, the overall pattern of what does and does not occur is reasonably stable. Yet, in general, complete paradigms of various focus sizes and locations in MorFoc languages are rarely found in the literature; their elicitation is challenging for researchers and consultants alike. We expect our proposal will be much refined as more such data becomes available.

Abbreviations

1, 2, 3	first, second, third person
ABL	ablative
ACC	accusative
ADD	additive
ALL	allative
ASS	assertive
COMP	complementizer
DEF	definite
DET	determiner
DEM	demonstrative
DP	determiner phrase
EXCL	exclamative
F	feminine
FOC	focus marker
INF	infinitive
IPFV	imperfective
LINK	linker
M	masculine
NC	noun class
NCOMPL	non-completive
NMLZ	nominalizer
O	object pronoun
Obj	object
PFV	perfective
PL	plural
PRES	present
PROG	progressive
PROX	proximal
PST	past
REL	relative
S	sentence
SG	singular
Sbj	subject
SM	subject marker
SR	Strong Restriction
T(P)	tense (phrase)
TOP	topic
TR	transitivity marker
V	verb
VN	verbal noun
VP	verb phrase
WR	Weak Restriction

A Appendix

This Appendix contains original Wolof, Hausa and Buli data we gathered in elicitation sessions (in person or by e-mail) with our consultants that was referenced in the main text and is not otherwise available.

A.1 Sbj+O

As part of the overall patterns we were interested in double corrections. But as mentioned in footnote 29, Wolof and Hausa don't allow for Subject+Object focus. Instead, the speakers produced bi-clausal sentences, like the Hausa example in (66) and the Wolof example in (67):

(66) A: 'The women are carrying chairs.'
B: Bàa maataa ba nee, mazaa nee. Shi bàa kùjèeru
NEG woman.PL NEG COP man.PL COP 3SG.M NEG chair.PL

ba nee, itàacee **nee** su-**kàa** ɗagàa.
NEG COP plant.PL FOC 3PL.PFV.REL carry
'They are not women, they are men. It is not chairs, they carry plants.' (Hausa)

(67) A: 'Hamine is eating an apple.'
B: Déédéét, ki nekk-ut Hamine, Musa **la**
no this.person exist-NEG.3SG H. M. 3SG.FOC
te lekk-ut pom, sorans **la** nekk di lekk.
and eat-NEG.3SG apple orange 3SG.FOC exist IPFV eat
'No, this person isn't Hamine, it is Musa and he is not eating an apple, he is eating an orange.' (Gambian Wolof)

A.2 Part-of-DP and entire DP

Following up on the discussion in Section 3.2.1, these data provide more examples showing that focus on modifier, noun and entire DP are focally marked the same way in Hausa and Wolof.

(68) A: Dookin ka yaa shuuri yaaro-n
Horse your PFV kick boy.DEF
'Your horse kicked the boy!'
B: A'a, dookin shi **nee ya** shuuri yaaro.DEF
no, horse his FOC PFV.REL kick boy.def
'No, his horse kicked the boy!' (Hausa)

(69) A: Dookin shi yaa shuuri yaaro-n
horse his PFV kick boy.DEF
'His horse kicked the boy!'
B: A'a akuyan shi **nee ya** shuuri yaaro-n
No, goat his FOC PFV.REL kick boy.DEF
'No, his goat kicked the boy!' (Hausa)

(70) A: Dookin shi yaa shuuri yaaro-n
Horse his PFV kick boy.DEF
'His horse kicked the boy!'
B: A'a akuyan na **nee ya** shuuri yaaro-n
No, goat my FOC PFV.REL kick boy.DEF
'No, my goat kicked the boy!' (Hausa)

(71) Q: 'Did Moussa see a picture of Fatou?'
A: Déédéét, Peentur-u Fatu **la** gis.
no painting-GEN Fatou FOC.3SG see

'No, he saw a painting of Fatou' (Wolof)

A.3 Clausal Focus

Following up on Footnote 29, these examples show sentences with clausal focus with subject focal marking in Wolof and Hausa —contrary to expectation. As noted, this typically involves verbs of misfortune, like those in Allerton and Cruttenden (1979).

(72) Q: 'What happened?'
A: Benn yamb **moo** màtt benn xale.
one bee FOC.3SG bite one child
'A bee stung a child.' (Wolof)

(73) Q: 'What happened?'
A: Kuda-n-zuma **su(n)ka** soke yarinya.
flies-LINK-honey 3PL.PFV.REL sting girl
'Bees stung a girl.' (Hausa)

A.4 Sbj+Verb

The following data shows that Sbj+V focus can also have subject focal marking in Wolof and Hausa. Whatever explains the fact that clausal focus can be indicated by the subject focus marking morpheme in these languages —see Appendix A.3— probably will account for this data as well.

(74) A: 'What happened to the table?'
B: Musa **moo** defar-oon tabul bi.
M. FOC.3SG make-PST table NC.SG-SG.PROX
'Moussa decorated the table.' (Wolof)

(75) Q: 'What happened to the table?'
A: Musa **nee ya** garaa tabule na.
Musa FOC 3SG.M.REL.PFV make.beautiful table DEF
'Musa decorated the table.' (Hausa)

B Table of focus syncretisms

Languages \ Syncretisms	S, V, VP, O	S, V, VP	S, Sbj	VP, V, O	VP, V	VP, O	everything	DP, part-of-DP
Hausa	x							x
Wolof					x			x
Buli			x			x		x
Kɔnni			x			x		x
Gùrùntùm				x				x
Ewe					x			x
Joola (Foñy and Karon)					x			x
South Marghi			x					no information
Dagbani			x		x			x
Tangale (perfective)				x				no information
Tangale (progressive)	x							no information
Soninke					x			
Efik		x						x
Ngamo (marked)					x			x
Ngamo (unmarked)							x	x
Awing (marked)						x		x
Awing (unmarked)							x	x
Akan (unmarked)							x	x
Ga (unmarked)							x	x
Somali (transitive)			x					no information
Somali (intransitive)		x						no information
Cuzco Quechua			x					x
Even			x					no information
Aymara		x						x
Tar B'arma	x							no information

Table 3: Most attested focus syncretism patterns in our sample

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