Evidence for abstract Case in Bantu

1. Introduction: parameterising Case

The Minimalist Program has inherited from Government and Binding some version of the Case Filter (Chomsky, 1981; Vergnaud, 1977): even in languages lacking morphological case, it is assumed that overt DPs need to be Case-licensed. This abstract Case is semi-independent of the many different surface manifestations of morphological case and is taken to account for the distribution of (overt) DPs as well as phenomena such as A-movement. In Minimalism, Case is often reduced to an Agree relation (Chomsky 2000),[1] where nominals enter the derivation with an uninterpretable Case feature [uCase] that needs to be valued in the course of the derivation. Diercks (2012) critically evaluates the universality of Case theory in his paper 'Parameterizing Case: evidence from Bantu'. If Case is a feature like any other grammatical feature, Diercks (2012) reasons, languages can vary as to whether they have this feature, just like languages can optionally select other features (like mood or evidentiality). Logically, this leads to the parameterization of Case, where some languages do and some do not select [uCase] in their inventories:

(1) Case Parameter:
Uninterpretable Case features are/are not present in a language

His proposal for parameterization is inspired by Perez's [Harford] (1985) claim that Case is inoperative in Bantu languages. As Bantu languages do not have morphological case marking on nouns, the question of abstract Case has not been addressed much in Bantu linguistics, but Diercks (2012: 254) makes the claim explicit by arguing that "Bantu languages do not have uninterpretable Case features in their feature inventories" (Diercks 2012: 254).

(2) Case Parameter setting for Bantu:
Uninterpretable Case features are not present

Diercks examines 4 phenomena where Case may be expected to play a role, showing that the Bantu languages that he studies do not display the expected behavior if Case licensing were required for every overt DP. These phenomena can be taken as diagnostics for abstract Case in linguistic theory (cf. Sheehan & van der Wal 2014), but should equally be seen as cues for the language learner to discover the licensing mechanism. A major question for linguists as well as acquirers is thus what kind of evidence is needed for postulating a system of abstract Case in a particular language.

This paper addresses that question by following up on a footnote in Diercks (2012: 254), which is a qualification on the Case parameter setting for Bantu (2): "such macroparametric claims must be tempered by allowing individual language differences". Such microvariation is indeed found, as shown by the data from Matengo and Makhuwa in this paper. The four diagnostics applied by Diercks (2012) show that Matengo and Makhuwa pattern different

[1] There is a debate about how Case should be treated in a Minimalist theory of syntax (cf. Chomsky 2000, Pesetsky & Torrego 2001). In this paper I shall leave these to one side and keep to Diercks' (2012) interpretation of Case.

from the languages discussed by Diercks, and a novel diagnostic also indicates that in these two languages there may be enough evidence in the input for language learners (and linguists) to detect a licensing system of abstract Case.

The paper is organized as follows. Section 2 discusses how morphological marking on nominals, which one may think of as morphological case marking, is unrelated to abstract Case in Bantu languages. Section 3 addresses the link between (subject) agreement and (nominative) Case, which is absent in the languages Diercks studies, but consistent in Matengo and Makhuwa. A third diagnostic used by Diercks is the occurrence of overt subject DPs in non-finite clauses, where nominative Case is not licensed, which is discussed in section 4. This section also addresses the issue of which aspect of finiteness might be related to Case marking. Section 5 introduces an additional diagnostic which concerns the licensing of an overt agent DP in a passive clause. Finally, section 6 addresses [uCase] as an activity feature, relating to the phenomenon of 'hyperactivity' (Carstens 2011) where DPs move through multiple Case positions. For the last four diagnostics, Matengo and Makhuwa are shown to behave differently from the languages Diercks (2012) analyses, displaying evidence for the presence of Case. The conclusion is that these languages, unlike the languages Diercks (2012) analyses, plausibly exhibit enough concrete evidence to postulate an abstract Case system, for the language learner as well as for the linguist.

2. Absence of morphological case in Bantu

The first diagnostic Diercks (2012) applies is the presence/absence of morphological case. Even if there may crosslinguistically not be a one-to-one mapping between abstract Case and morphological case realization, there must be *some* relation (Legate, 2008), hence morphological case should be indicative of abstract Case. However, this diagnostic only holds in one direction: if a language shows morphological case, it is assumed to have abstract Case (or else the morphological component has nothing to spell out), but the absence of morphological case is compatible with either presence or absence of abstract Case.

The Bantu languages "display no morphological case –that is, noun phrases appear in the same form whether they are a subject, a primary object, a secondary object, or an oblique" (Diercks 2012:355). This is illustrated in **Error! Reference source not found.**) where the noun *omuwala* 'girl' has the same form in subject and object function.

(3) a. Y-à-lábà òmùwálà. Luganda (JE15) [2]
1SM-PST-see 1.girl
'He saw the girl.'

b. Òmùwálà y-à-mú-làbà.
1.girl 1SM-PST-1OM-see
'The girl saw him.'

[2] The Bantu languages are conventionally classified by a letter and a number, the letters referring to geographical zones, according to the updated Guthrie (1948) classicification by Maho (2009).

Bantu languages do not show any case morphology with a function comparable to the case systems we know from Latin, German, or Turkish. While this forms no conclusive evidence, the absence of morphological case marking on nouns is at least compatible with the absence of Case.

Although it is generally true in Bantu languages that DPs do not take morphologically different forms depending on their syntactic role, there are three areas where morphological case might appear to be present. It is important to discuss these here, as they form potential evidence for the presence of Case, for the linguist as well as the acquirer. The first two (locative nouns and tone cases) are shown to not be related to abstract Case licensing at all, whereas the third (augmentless nouns) potentially is, but not across the board.

A first distinction in nominal morphology, mentioned by Diercks (2012: 255) in a footnote, are the locative noun classes, which are numbered 16, 17 and 18. In many Bantu languages locative nouns are formed by a process of nominal derivation consisting of adding a prefix of locative class 16/17/18, either replacing the original noun class prefix or adding the latter prefix onto the already prefixed noun, as in (4).

(4)	a.	n-te	ku-n-te	Lusoga
		9-cow	17-9-cow	
		‘a/the cow’	‘on a/the cow’	
	b.	n-gira	mu-n-gira	
		9-road	18-9-road	
		‘a/the road’	‘on a/the road’	

The crucial fact here is that these locatives function as DPs, rather than PPs,[3] which would make them similar to locative case in languages like Czech or Turkish. The difference, however, is that the locative marking can remain present, regardless of the syntactic function. That is, the locative marking remains the same whether the locative is an adverb (5a) or licensed as an argument by the applicative (5b), and whether it is the object (6 with object marking) or subject of a sentence (5c). This indicates that the locative classes are locative genders rather than locative cases (Bresnan, 1991).

(5)	a.	Ndi-na-gw-a	mu-nyumba.	Chichewa (N31)
		1SG.SM-PAST-fall-FS	18-9.house	
		‘I fell in the house.’		

[3] See Marten (2010) for the reanalysis of locative markers as prepositions in some southern Bantu languages; compare (i, DP) and (ii, PP):

Herero (R30, Marten 2006: 98)

(i)	Mò-ngàndá	mw-á-hìtí	òvá-ndù.	[$_{DP}$ mo [$_{NP}$ nganda]]
	18-9.house	18sm-PST-enter	2-people	
	‘Into the house entered (the) people.’			

Zulu (S42, Buell 2007: 108)

(ii)	Ku-lezi	zindlu	ku-hlala	abantu	abakhubazekile.	[$_{PP}$ ku [$_{DP}$ lezi [$_{NP}$ zindlu]
	17-10.these	10.houses	EXPL-stay	2.people	2.handicapped	
	‘In these houses live handicapped people.’					

b. Ndi-na-gw-el-a mu-nyumba.
1SG.SM-PAST-fall-APPL-FS 18-9.house
'I fell into the house.'

c. Mu-nyumba mu-na-yera.
19-9.house 18SM-PAST-white
'Inside the house is clean.' (Ron Simango, p.c.)

(6) Ndí-ma-**ku**-kóndá ku San José. Chichewa
1SG.SM-PRES.HAB-17OM-love 17 San Jose
'I like (it) (in) San José.' (Bresnan 1991:58)

A second area where morphological case might be suspected are the so-called "tone cases" found in some Western Bantu languages (Blanchon, 1998, 1999; Kavari et al., 2012; Schadeberg, 1986). In this system, the tonal nominal inflection varies according to different syntactic contexts, as illustrated in (7): the tone pattern on *otjihavero* 'chair' starts with LL in the Default case (glossed with 'D', used for the subject in (7a)) but with LH for the Complement case (glossed with 'C', used for the object in (7b)).

(7) a. Òtjì-hávérò tj-á ù. Otjiherero (R30)
7D-chair 7SM-PAST fall.down
'The chair fell down.'

b. Vé múná òtjí-hávérò
2SM.HAB see 7C-chair
'They usually see the chair.' (Kavari et al. 2012: 318)

This appears to correspond to nominative and accusative case (König, 2008: 205-222). However, it can be shown that the tone cases are currently not unambiguously related to grammatical function (though languages may develop this function, see König 2008). I mention three of the many arguments to distinguish tone cases in Otjiherero from more familiar systems of case marking. First, the use of the complement or default pattern is in the majority of sentences determined by the tense (8).

(8) a. *habitual: complement case*
Vé múná òví-kùryá (*òvì-kùryá). Otjiherero
2SM.HAB see 8C-food 8D-food
'They usually see food.'

b. *present: default case*
Má-vé múnú òvì-kùryá (*òví-kùryá).
PRES-2SM see 8D-food2 8C-food
'They are seeing food.' (Kavari et al. 2012: 321-322)

Second, there is a choice between the default and complement case in the negative factive habitual which is determined by information structural factors, i.e. the complement form indicates focus on the postverbal element (9a).

(9) a. Ká-tù hòng-à òvá-nátjè.
NEG-1PL.SM teach-FS 2C-children
'We never taught *children* (but possibly other people).'

b. Ká-tù hòng-à òvà-nátjè.
NEG-1PL.SM teach-FS 2D-children
'We do not professionally teach children (nor any other people).'
(Kavari et al. 2012: 325)

Third, not only arguments but also adverbs are marked by these same cases, as shown in (10). For further argumentation and an analysis of the tone case system in Otjiherero, see Kavari et al. (2012).

(10) a. Mbì ryá òn-yámà òn-gùróvà.
1SG.SM.HAB eat 9C-meat 9D-evening
'I usually eat meat in the evening.'

b. Òn-gùróvà mbì ryá òn-yámà.
9D-evening 1SG.SM.HAB eat 9C-meat
'In the evening I usually eat meat'

c. Mbì ryá òn-gúróvà.
SM1SG.HAB eat 9C-evening
'I usually eat in the evening.' (Kavari et al. 2012: 330)

A third morphological distinction that could be related to case is the variation between nouns with and without an augment or pre-prefix, e.g. *u-muntu* vs. *muntu*, respectively. (Halpert, 2012a, to appear) suggests that in Zulu the augment serves to license DPs.[4] She shows that augmentless DPs have a very restricted distribution similar to that of bare NPs in Romance languages: augmentless nominals are licensed under negation, and only within the vP domain. In (11), the augmentless form muntu is only allowed in a vP-internal position, whether in the lower (a) or higher (c) clause.

(11) a. A-ngi-sho-ngo [ukuthi ku-fik-e muntu].
NEG-1SG.SM-say-NEG.PAST that 17SM-arrive-PERF 1.person
'I didn't say that anyone came.'

b. * A-ngi-fun-i [ukuthi muntu a- pheke iqanda].
NEG-1SG.SM-want-NEG that 1.person 1SM.SJ-cook 5.egg

[4] Note that this is the opposite of Baker (2003) who suggests that augmentless nouns in Kinande do *not* need to be Case licensed.

c. A-ngi-fun-i muntu$_i$ [ukuthi t$_i$ a-pheke iqanda].
NEG-1SG.SM-want-NEG 1.person that 1SM.SJ-cook 5.egg
'I don't want anyone to cook an egg.' (Zulu, Halpert 2012)

Since augmentless nouns are only ever allowed in negative contexts in Zulu (and Xhosa and Kinande, see (Carstens and Mletshe, 2013) and (Progovac, 1993), respectively), it remains an open question whether this provides enough evidence to postulate the presence of an abstract Case licensing mechanism in the language (especially since Zulu does not show evidence for Case according to the other diagnostics).[5]

We conclude that there is no consistent case marking for Bantu languages overall, and that the potential relevance of the discussed morphological/tonological distinctions to structural Case should be established on a language-particular basis. Furthermore, the absence of other morphological case marking in Bantu languages is compatible with the absence of [uCase] features.

3. Dissociation of Case and Agree

Diercks' (2012) second diagnostic are the subject agreement patterns in Bantu languages. If Case is not marked on the noun (the dependent), it may be marked on the Case-licensing verb (the head -cf. Nichols 1986, 1992). The obligatory subject agreement on the verb in Bantu languages is thus a good candidate to correlate with licensing case.[6] If this is so, subject agreement is expected to always be with the nominative DP (assuming T to value nominative), whether in canonical active SVO sentences or in other word orders. This can be illustrated in English: in an expletive construction like (12b), the verb agrees with the postverbal nominative plural subject. The same is found in the locative inversion construction in (12c).

(12) a. The guests appeared at the entrance of the college.
b. There were guests in the dining hall.
c. At the table were sitting some of the invited guests.

In a language without Case, Diercks argues, we would not expect there to be a similarly strict relation between agreement and the subject. Indeed, it is well known that 'subject' agreement is more flexible in many Bantu languages. Agreement on the verb is expressed by a prefix, referred to as the subject marker. In a canonical SVO sentence, this subject marker agrees in noun class with the preverbal subject, but in subject inversion constructions we find different agreement patterns cross-linguistically (Marten and van der Wal, To appear). For example, in Default Agreement Inversion, the subject marker on the verb can be in a default class: class 17 *go-* in (13) and not class 2 *ba-* of the postverbal subject.

[5] Note that the absence of the augment functions differently in different Bantu languages and has been related to specificity and focus (see a.o. Asiimwe 2014; De Blois 1970, Hyman & Katamba 1993, Namyalo & van der Wal in preparation).

[6] There are many (case-marking) languages where agreement does not correlate with Case, specifically also in ergative languages (Moravcsik 1978, Woolford 2006 and others).

(13) a. Basadi ba-opela mo-kereke-ng. Tswana (S31)
2.women 2SM-sing 18-9.church-LOC
'The women are singing in the church.'

b. Mokereke-ng go-opela basadi.
18-9.church-LOC 17SM-sing 2.women
'in the church there are women singing'

c. Go-opela basadi.
17SM-sing 2.women
'There are women singing.' (Creissels, 2011, adapted)

In Locative Inversion the subject marker agrees with the preverbal locative DP, as in (14).

(14) a. A-lendô-wo a-na-bwérá ku-mudzi. Chichewa
2-visitor-2.DEM 2-RECPST-come 17-3.village
'Those visitors came to the village.'

b. Ku-mu-dzi ku-na-bwérá a-lendô-wo.
17-3-village 17SM-PST-come 2-visitor-2.DEM
'To the village came those visitors.'

c. Pa-m-chenga p-a-ima nkhandwe.
16-3-sand 16SM-PERF-stand 9fox
'On the sand is standing the fox.' (Bresnan and Kanerva, 1989)

If we conclude that it is not nominative Case that determines the agreement on the verb, what is the probe sensitive to? The Default Agreement and Locative Inversion constructions are part of a more general and widespread pattern in Bantu languages (Baker, 2008; Carstens, 2005; Collins, 2004; Diercks, 2011; Kinyalolo, 1991) where the subject marker agrees with the element occupying the preverbal position, whether a locative, a patient (15), or an instrument (16).[7]

(15) Ibitabo bi-á-som-ye Yohani. Kirundi (JD62)
8.books 8SM-PST-read-PERF 1.John
'JOHN read the books.' (Lit. 'the books read John') (Ndayiragije, 1999)

(16) a. U-John u-dla nge-sipunu. Zulu (S42)
1a-1a.John 1aSM-eat with-7.spoon
'John is eating with the spoon.' (Zeller, 2012)

b. I-sipunu si-dla u-John.
7-7.spoon 7SM-eat 1a-1a.John
'John is using the spoon to eat.' (Lit. 'The spoon is eating John.')

[7] These subject inversion constructions express focus on the postverbal logical subject. Inversion constructions can also express theticity.

The generalization for these constructions is that agreement is independent of Case, but related to the element occupying the preverbal position. Two similar analyses have been proposed to account for these patterns in agreement.

The first suggests that the head responsible for subject agreement not only has uninterpretable ϕ features which probe for a matching goal, but also has a movement trigger (EPP feature) which is responsible for moving the agreed-with goal to the specifier of that head. This is proposed by Collins (2004: 116) as the 'Agreement Parameter'.

(17) Agreement Parameter:
Let Agree (X, YP), where X contains the probe (uninterpretable phi-features) and YP contains the goal, then X has an EPP feature that is satisfied by YP.

Carstens (2005) phrases a very similar analysis in slightly different terms and proposes the Feature-linking Parameter, which links Agree to either EPP or Case.

(18) Feature-linking Parameter:
uϕ has EPP as a subfeature in Bantu (and Case in Indo-European languages)

A second implementation of the idea is put forward by Baker (2008). He proposes an analysis in which languages are parameterized in two ways. The first is whether agreement is 'downward' (with a c-commanded element) or 'upward' (with an element c-commanding the agreeing head), the initial movement being triggered independently (for example by topicalization). A second parameter then asks whether agreement is linked to Case or not.

(19) The Direction of Agreement Parameter:
F agrees with DP/NP only if DP/NP asymmetrically c-commands F.

(20) The Case-Dependency of Agreement Parameter:
F agrees with DP/NP only if F values the Case feature of DP/NP or vice versa.

According to Baker, Bantu languages are set 'yes/no', which means agreement is 'upward' and independent of Case.[8]

These proposals all derive the patterns illustrated above, where agreement is determined by the element that is eventually in the linearly preverbal and structurally higher position, be that because of an EPP feature associated with Agree or because of some independent motivation for movement. However, assuming that subject agreement indicates (nominative) Case valuation, and noting that the logical subject in subject inversion constructions is not agreed with, these analyses have difficulties accounting for how the postverbal logical subject is Case licensed in inversion constructions. Under the Case Filter, the postverbal logical subject is left with an unvalued uninterpretable [uCase] feature, which should cause the derivation to crash. As the inverted subject does not behave like an object (Bresnan and Kanerva 1989, Morimoto 2006), e.g. it

8 A next question is what determines the goal of agreement in these approaches, which we come back to later in this section.

cannot be object-marked on the verb, we cannot assume a full reversal of grammatical functions.

Various proposals have been made to account for the Case valuation of the postverbal logical subject which are discussed by Diercks (2012: 256) and briefly summarized here. Belletti (1988) suggests that the inverted subject of an unaccusative verb is assigned partitive Case -hence the indefinite (and new information focus) interpretation. Carstens (2005) proposes an analysis in which T agrees twice: the first time overtly with the element that it moves for EPP reasons (e.g., the locative in LI), and the second time covertly with the inverted subject to value its Case. Another alternative is Baker (2003), who claims that DPs without the so-called augment do not need Case licensing, thus making an exception which predicts different behavior dependent on morphology, and which seems to hold for Kinande.[9] Diercks (2012), on the other hand, proposes what is in some way the easiest solution: there is no Case, so the logical subject can stay in situ and there is no need for it to "be licensed".

Under these analyses, we would not expect the subject marker to agree with a postverbal element. Nevertheless, this is what is found in various other Bantu languages. Apart from Default Agreement Inversion and Locative Inversion, there is another quite wide-spread inversion construction, which I call Agreeing Inversion. This construction is encountered as the only or primary inversion construction in Ngoni (N122), Dciriku (K332), Ndengereko (P11), Mwera (P22), Ngindo (P14), Ndendeule (N101), Matengo (N13), Matuumbi (P13), Makwe (G402), Makonde (P20), Makhuwa (P31), Koti (P311) and Shangaci (P312).[10] In this paper, I base my analysis mainly on Makhuwa and Matengo, as these are the languages I have the clearest data for. Unlike in the other subject inversion constructions, in Agreeing Inversion the subject marker is determined by the subject, regardless of the subject's position, as illustrated in (21) and (22).

(21) Yaámbi aida nyóóka. Makwe (G402)
now 1SM.come.PRI 1.snake
'And then a snake came.'

(22) Unkupúúna upéépo.
11SM.PROG.blow 11.wind
'The wind is blowing.' (Devos, 2004: 316)

There is an important distinction to make between agreeing inversion and afterthought constructions: "In both these constructions, the verb shows agreement with the subject. However, in contrast to agreeing inversion, in afterthought constructions the subject DP is discourse-old and known from the context" (Marten and van der Wal, to appear). The right-dislocated status of the subject in afterthought constructions –in contrast to the in situ position in agreeing inversion constructions– can be shown in various formal properties,

[9] As mentioned in footnote 5, this is the opposite of what Halpert (2012) proposes for Case checking of augmentless nominals in Zulu.

[10] In other languages Agreeing Inversion is also possible, but it is one of multiple inversion constructions used in these languages (see the overview in Marten & van der Wal to appear). I leave detailed research into these cooccurring inversion constructions for further research.

involving tone patterns (23a vs. b), phonological phrasing, and the conjoint or disjoint form of the verb (see Marten and Van der Wal, to appear). These properties all indicate that there is a close relation between verb and following subject in inversion constructions (23a), which is absent for right dislocation (23b).

(23) a. P-è-yá òvá-éndà. [Otjiherero]
16SM-PST-come 2C-visitor
'Visitors came.'/'There came visitors.'

b. V-è-yá, òvà-éndà.
2SM-PST-come 2D-visitor
'They came, the visitors.' (Marten 2011: 801)

The Agreeing Inversion constructions are thus crucially different from right dislocation constructions. In addition, it can be shown for Matengo that the postverbal subject is in situ in the verb phrase –see van der Wal (2012) for arguments involving scope and phonological phrasing.

Furthermore, these languages do not have locative inversion like the Bantu languages described by Baker, Carstens and Diercks: the subject marker cannot agree with the preverbal locative, but must seek agreement with the postverbal subject.[11]

(24) a. Aléttó a-náá-phíyá wakisírwa. Makhuwa[12] (P31)
2.guests 2SM-PRES.DJ-arrive 16.island
'The guests arrive on the island.'

b. Wakisírwá a-náá-phíyá alétto.
16.island 2SM-PRES.DJ-arrive 2.guests
'On the island arrive guests.'

c. * Wakisírwá wa-náá-phíyá alétto.
16.island 16SM-PRES.DJ-arrive 2.guests
int. 'On the island arrive guests.'

(25) a. Máhimba ga-a-tam-iti mu-kítengu. Matengo[13] (N13)
6.lions 6SM-PAST-live-PERF 18-7.forest
'Lions lived in the forest.'

[11] It should be pointed out that this is independent of the ability of locative DPs to trigger agreement, as shown in (iii) for Makhuwa, where the locative *mpaani mu* 'inside' is the subject of 'be dirty'.

(iii) mpáání mú n-núú-nanar-átsa
18.inside 18.DEM.I 18SM-PERF.PERS-mess.up-PLUR
'inside here is all messy'

[12] The Makhuwa data were collected during fieldwork on Ilha de Moçambique in the north of Mozambique in 2005, 2006 and 2008 as part of the NWO project 'Word order and morphological marking in Bantu'. Examples without tone marking were subsequently elicited over the telephone.

[13] The Matengo data come from elicitation sessions with a native speaker in London and email correspondence with other speakers unless the source literature is indicated.

b. *Mu-kítengu mu-a-tam-iti máhimba.
18-7.forest 18SM-PAST-live-PERF 6.lions
Intended: 'In the forest lions lived.'

c. Mu-kítengu ga-a-tam-iti máhimba.
18-7.forest 6SM-PAST-live-PERF 6.lions
'In the forest lions lived.' (Yoneda, 2011: 770)

Similarly, impersonal (passive and active) constructions do not have default agreement, but the subject marker still agrees with the subject, as illustrated for Makhuwa in (26).

(26) (Wa-phiy-aly-ááwé owaání,) tsi-nú-mwíýy-íyá
16-arrive-PERF.REL-POSS.1home 10SM-PERF.PERS-steal-PASS
étthú tsootéene.
10.things 10-all
'(When she arrived home,) everything was stolen'
(literally: 'were stolen all things')

And likewise, there is no default agreement for weather verbs in Matengo.

(27) Ki-bi kipepu. Matengo
7SM-be.PERF 7.coldness
'It is cold.' (literally: 'coldness exists')

(28) Ji-kunika ihjula.
9SM-rain 9.rain
'It is raining.' (literally: 'rain rains') (Yoneda, p.c.)

Makhuwa does show an alternative subject marker *o-* for some weather verbs (29), and also in those instances when there is no logical subject, as in the impersonal passive of an unaccusative verb (31).[14] It is telling that this default agreement only surfaces in cases where there is no clear subject to determine the agreement.

(29) oviha 'to be hot' a. o-náá-víha 'it is hot' Makhuwa
oriirya 'to be cold' b. o-náá-ríirya 'it is cold'

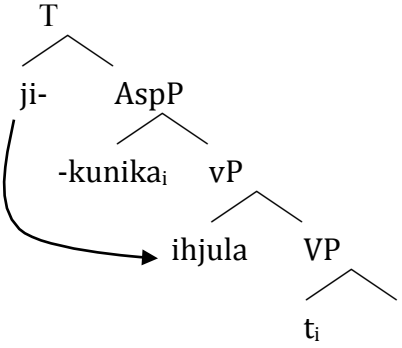
cf.
(30) E-náá-rúpá epúla!
9SM-PRES.DJ-rain 9.rain
'It is raining!'

(31) O-nuu-khw-iya.
?-PERF.PERS-die-PASS
'There has been/occurred a death.'

[14] It is difficult to establish in what class the agreement is, because *o-* is the subject prefix for classes 1,3,14,15, and 17; hence the question mark in the gloss.

We can conclude that subject agreement in these languages with Agreeing Inversion is, first, not random, and, second, not linked to an element in the preverbal position. Hence, the question is what determines agreement in these languages. If subject agreement is neither tied to Direction nor to Case, Baker's (2008) parameters in (19) and (20) are effectively set 'no, no'. Baker (2008) does not devote much attention to this, but in a footnote, he mentions that "Agreement in [no-no] languages is not random and unconstrained. The easiest answer would be to say that T simply probes downward in the pre-movement structure, agreeing with the first DP it finds – the thematic subject in spec, vP- regardless of how it gets case or whether it moves." (Baker 2008: 170). We can apply this hypothesis to Matengo, with the tree in (32) illustrating the Matengo example in (28) above ('rains rain').

(32)



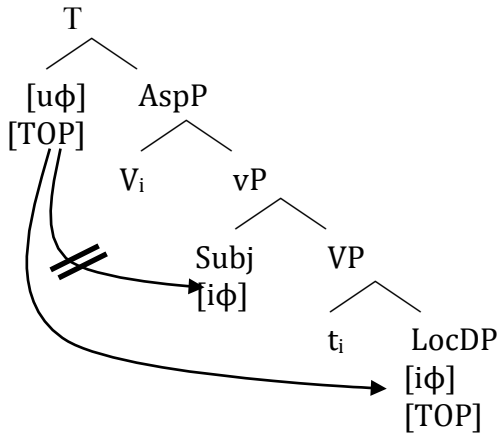
The hypothesis is thus that subject agreement in Makhuwa and Matengo is always determined by the hierarchically closest goal. Whether this can account for the data depends in part on what analysis we adopt for Locative Inversion and for preverbal adverbs in general. A long-standing debate for Locative Inversion is how the locative DP can be raised over the subject. The subject is usually assumed to start off higher in the structure than the locative and therefore closer to the probing head (T or AgrS) that spells out as the subject marker. Hence, agreeing with and raising the locative while leaving the subject in-situ violates the Minimal Link Condition (Chomsky 1995, 2000, cf. Rizzi's 1990, 2001, 2013 Relativized Minimality). There are two ways around this problem.

The first approach is that the locative is in fact in a higher position than the subject when T probes. This could be the case if the locative has moved to the edge of the vP phase, or if it was generated in a projection higher than vP (e.g. Zeller (2012, 2013) proposes PrP as the position where the inverted element originates in Instrument Inversion and (semantic) Locative Inversion, and Carstens and Diercks (2013a) posit an AgrLoc head above vP that targets only locatives). Hence, under this approach, no extra features on T need to be postulated for the derivation of Locative Inversion, as the closest goal will be the locative and not the subject.

The second way to circumvent the locality problem in Locative Inversion is an analysis in which the probe and goal (AgrS and locative DP, respectively) are further specified, for example having an additional topic feature [TOP], and a full match between the two is required. That is, it is not enough for a goal to partially match the features of the Probe, for example only match in [number] but not [gender]. If our probe T is specified not just for uϕ, but also for topicality

[TOP], then only a goal with a [TOP] feature would fully match the Probe's specifications. All inversion constructions in Bantu have the function of highlighting the logical subject, either because it is newly presented (as in thetic sentences) or because it is focused (as in answers to questions and contrastive contexts). This entails that the logical subject in an inversion construction will never be specified as [TOP] and hence that it is not a fully matching suitable Goal. This allows the probe T to skip the subject, continue its search and agree with the lower locative if this is specified as [TOP]. This is illustrated in (33).

(33)



In this approach, the variation between languages with Locative Inversion and Agreeing Inversion is in the specification of the probe T for [TOP]. If T has [TOP], we find agreement with whichever element is topical (as in the languages Diercks describes); if T does not have [TOP], it will agree with the first c-commanded goal. If this goal is the logical subject, then we can account for the Agreeing Inversion constructions presented in this paper. The question, however, remains whether the logical subject is always the closest c-commanded goal.

It is important to note, in this respect, that the fronting of a locative or instrumental is possible in Makhuwa and Matengo as well, as shown in (24) and (25) above. All else being equal, this proceeds via spec,vP, resulting in a situation where the locative (or instrumental, or…) can intervene between the T probe and the logical subject and the derivation of Agreeing Inversion is no longer obvious: an unrestricted downward probe will encounter the locative rather than the subject as its closest goal in a sentence like (25c), here repeated as (34), and locality predicts that the subject marker will agree with the locative (i.e. Locative Inversion), which is clearly not the case.[15]

(34) Mu-kítengu ga-a-tam-iti máhimba. Matengo
18-7.forest 6SM-PAST-live-PERF 6.lions
'In the forest lions lived.'

As agreement is still with the logical subject, there must be something else that uniquely identifies the logical subject as the only viable goal for subject agreement. A quite natural candidate for that unique identifier is nominative

[15] Note that this is the predication for languages with Agreeing Inversion in the second approach as well, as in these languages T would not have a [TOP] specification anyway.

Case. This would set Baker's (2008) Case Dependency Parameter to 'yes' for the Bantu languages that have Agreeing Inversion as their only inversion construction.

In conclusion, in the languages where subject agreement is not consistently with the logical subject, there is no evidence that abstract Case plays any role, and this is accounted for if [uCase] is absent in these languages. However, the Agreeing Inversion construction as found in Matengo and Makhuwa potentially provides this evidence for Case. That is, acquirers receive a potential cue, not just in subject inversion but in every sentence, that subject agreement is related to nominative Case on the logical subject.

4. Overt subject DPs in non-finite clauses

Nominative Case is traditionally associated with finiteness: nominative Case on an overt subject DP can only be licensed by finite T. Hence, the subject in a non-finite clause should either be null (PRO) or have a different licenser, such as a preposition or Exceptional Case Marking from a higher verb. Following this logic, if a language shows restrictions on overt subjects in non-finite clauses, this argues for the influence of Case licensing, whereas if overt DPs are allowed in non-finite clauses, Case apparently does not play a role.

It is well known by now that even languages that otherwise show case marking do allow overt DPs in non-finite clauses (Landau, 2006; McFadden, 2004; Sundaresan and McFadden, 2009; Szabolcsi, 2009; Torrego, 1998), thus calling into question the direct relation between the distribution of overt DPs and Case. However, since 'finiteness' is not a unitary notion, it needs to be established on a language-individual basis precisely which aspect(s) of finiteness correlates with nominative Case. This can be ϕ agreement with the subject, (semantic) Tense or independent sentencehood (see among others Landau, 2004; Sitaridou, 2006).

Assuming for this paper, then, that restrictions in non-finite clauses are related to Case licensing, and leaving discussion of the particular aspects of finiteness for later in this section, there are three environments in which this can be tested (Diercks, 2012; Sheehan and van der Wal, 2014):

A. complements of raising-to-subject verbs

(35) *It seems [John to eat pancakes].

B. complements of object raising verbs without Exceptional Case Marking or overt C;

(36) *We hope [John to eat pancakes].

C. and sentential subjects without an overt C.

(37) *[John to eat pancakes] would be good.

The data for these environments are shown below for the languages Diercks (2012) discusses and contrasted with Makhuwa and Matengo, which again pattern differently.

4.1. DPs as subjects of non-finite complements of raising predicates

If Case does not play a role in the syntax of a language, Diercks argues, we should find overt DPs as subjects of non-finite sentences, a prediction that holds true for the languages he looks at. Like in English, the subject of a finite complement clause can be overt, as in (38a). Unlike English, however, the subject is also allowed to appear in a non-finite clause as in (38b), which lacks a Case licenser such as a complementizer or preposition.[16]

(38) a. I-na-wezekana kukala Mike a-nda-muiha Tegan. Digo (E73)
9SM-PRES-possible that 1.Mike 1SM-FUT-call 1.Tegan
'It is possible that Mike will call Tegan.'

b. I-na-wezekana Mike ku-muiha Tegan.[17]
9SM-PRES-possible 1.Mike 15-call 1.Tegan
'It is possible (for) Mike to call Tegan.'

c. Chahi i-na-wezekana mutu ku-olagb-wa kpwasababu ya
maybe 9SM-PRES-possible 1.person 15-kill-PASS for reason of

mutu mnono sana.
1.person 1.good very
'Maybe it is possible [for] a person to be killed because of a very good person.' (Diercks 2012: 260, referring to Steve Nicolle)

Unfortunately, neither Makhuwa nor Matengo has clear raising-to-subject predicates. Instead, for 'seem'-type verbs Makhuwa has an experiencer construction (39).

(39) Ki-ná-móóná ntokó wiírá n-náá-kí-thépya. Makhuwa
1SG.SM-PRES.DJ-see like COMP 2PL-PRES.DJ-1SG.OM-lie
'It seems like you are lying to me.' = 'I look/see as if you are lying to me.'

4.2. DP subjects in non-finite complements of control predicates

While it is perfectly grammatical in Matengo and Makhuwa to have a null (PRO) subject in the complement of a control predicate, as shown in (40a) and (41a), an overt DP subject in an infinitive complement is ungrammatical, as seen in the (b) examples.

(40) a. M-bala ímbui kúula. Matengo
1SG.SM-want 9.goat 15.eat
'I want to eat goat' / 'I want goat to eat'
* 'I want the goat to engage in eating.'

[16] Diercks (2012) gives the same pattern for Swahili, but Kristina Riedel (p.c.) points out that in fact a preposition 'kwa' is needed for the sentence to be grammatical in standard Swahili.
[17] Bantu infinitives are in noun class 15 and therefore glossed as such.

b. * M-bala imbui kula manyaae.
1SG.SM-want 9.goat 15.eat 6.grass
int. 'I want (the) goat to eat grass.'

(41) a. Ki-m-phéélá waápéya nráma. Makhuwa
1SG.SM-PRES.CJ-want 15.cook 3.rice
'I want to cook rice.'

b. * Ki-m-phéélá Amína waápéya nráma.
1SG.SM-PRES.CJ-want 1.Amina 15.cook 3.rice
int. 'I want Amina to cook rice.'

This shows that DPs cannot appear as subjects of non-finite complement clauses in Matengo and Makhuwa. Note also that object marking on the verb in Makhuwa does not seem to be related to (accusative) Case at all. There is no equivalent of ECM to "save" the subject of the infinitival clause, i.e., object marking does not ameliorate the infinitive complement, as shown in (42) below. This holds even though object marking of a local DP is otherwise permitted and even required in Makhuwa, as explained in more detail below.

(42) * Ki-ni-m-pheela Amina waapeya nrama. Makhuwa
1SG.SM-PRES.CJ-1OM-want 1.Amina15.cook 3.rice
int. 'I want Amina to cook rice.'

Instead, a subjunctive verb must be used in the complement clause in both languages, as seen in (43), (44) and (45), where the absence of a preverbal TAM marker and the optative final vowel *-e* show that the verb is subjunctive. This subjunctive verb form shows subject agreement in noun class, which is one prototypical property of finiteness (Carlson 1992, Nikolaeva 2007, among many others). The *-tsivela* experiential construction in (46) shows the same restrictions when followed by a non-finite complement.

(43) a. Mbala imbúí ji-kulâ mányˡááé. Matengo
1SG.SM-want 9.goat 9SM-eat 6.grass
'I want a/the goat to eat grass.'

b. Mbala imbúí ji-kuláaje.
1SG.SM-want 9.goat 9SM-eat
'I want a/the goat to eat.' (= want goat to engage in eating)

(44) a. N-degeme amáábú ateleka ḿpoonga.
1SG.SM-expect 2.mother 2SM-cook 3.rice
'I expect mother to cook rice.'

b. * N-degeme amáábú kuteleka ḿpoonga.
1SG.SM-expect 2.mother 15.cook 3.rice

(45) Ki-m-phéélá Amína a-apéy-e nráma. Makhuwa
1SG.SM-PRES.CJ-want 1.Amina 1SM-cook-OPT 3.rice

'I want Amina to cook rice.'

(46) a. O-kí-tsívélá ovárá ehópa.
?-1SG.OM-please 15.fish 9.fish
'I like to fish.'

c. * O-ki-tsivela Peeturu ovara nteko.
?-1SG.OM-please 1.Pedro 15.grab 3.work
int. 'I like for Pedro to work.'

b. O-ki-tsivela wiira Peeturu avare nteko.
?-1SG.OM-please COMP 1.Pedro 1SM-grab-SUBJ 3.work
'I like it that Pedro works.'

The subjunctive complements raise two further questions that need to be answered before a conclusion can be drawn on the presence of Case in these control complements:

1. whether the subject is indeed in the lower clause and has not raised to become the object of the higher verb; and
2. whether the subjunctive verb in the lower clause licenses the nominative Case of the subject. If it does, these data are compatible with the presence of Case in these languages.

With respect to the first question, it needs to be shown that the DP is (Case-)licensed as the subject of the lower clause and not the object of the higher clause (ECM). In Makhuwa, this can be shown with object marking. An object marking prefix on the verb is obligatory only and always for object nouns in classes 1 and 2, as shown in (47).

(47) a. Ki-ni-ḿ-wéha Hamísi / namarokoló/ nancoólo. Makhuwa
1SG.SM-PRES.CJ-1OM-look 1.Hamisi / 1.hare / 1.fish.hook
'I see Hamisi / the hare / the fish hook.'

b. * Ki-m-wéhá Hamísi / namarokoló/ nancoólo.
1SG.SM-PRES.CJ-look 1.Hamisi / 1.hare / 1.fish.hook

The fact that 'Amina' is not object marked in the subjunctive complement in (45) above shows that it must be the subject in the lower clause, rather than raised to the object position of the higher clause. If it would have undergone raising-to-object, object marking would have been obligatory. Note also that object marking is possible with a subjunctive complement, but results in the DP being the thematic object of the higher verb, not the subject of the lower. This is apparent in the informants' explanations for (48) where it is relevant that *-pheela* means both 'want' and 'like'. The interpretation of (48a) is that "it seems that you like Hare but also want him to go away; that is weird", and (48b) was described as "you are looking for Amina so that she can come and cook". The lower clause in these examples must have a *pro* subject.

(48) a. * Mwi-ni-ḿ-phéélá namárókolo a-khum-é? Makhuwa
2PL-PRES-1OM-want 1.hare 1SM-leave-OPT
int. 'Do you want Hare to leave?'

b. Ki-ni-ḿ-phééla Amína a-w-e
1SG.SM-PRES-1OM-want 1Amina 1SM-come-OPT
áá-pey-e nráma.
1SM.SUBS-cook-OPT 3rice
'I want Amina, (so that) she comes and cooks rice'

This object-marked construction, then, must be structurally different from the ones in (43) and (45) above, where the overt DP is in the lower clause as the subject of the subjunctive verb.

With respect to the second question (does the lower subjunctive verb license Case?), we need to know what it is that allows a clause to contain a nominative subject DP. As mentioned, nominative Case has been associated with the finiteness of the clause. In particular, various relations have been proposed between parts of inflection and Case. The first is an association with full ϕ feature specification, where [uCase] valuation is seen as being involved in ϕ feature valuation, and the absence of Case valuation in non-finite clauses is explained by T being deficient, having incomplete ϕ features (Chomsky, 2000; Ferreira, 2004; Nunes, 2008). A second relation is with Tense, where the absence of Case valuation in non-finite clauses is due to these clauses not having morphological Tense or semantic Tense, that is, the absence of independent temporal reference (Alexiadou and Anagnostopoulou, 2002; Landau, 2004). Third, the ability of the clause to be an independent CP has been connected to nominative Case (Sitaridou, 2006). These properties are discussed in turn, in order to see whether the subjunctive clause in Makhuwa plausibly licenses Case (which I conclude it does).

First, ϕ agreement seems to be complete in the subjunctive: full person, number and noun class prefixes are expressed on the subjunctive verb form, just as in inflected main clause verbs.[18]

Second, the subjunctive is not specified for tense, that is, there is no formal indication of Tense in the morphology. However, it has been argued for Greek that it is not the absence of morphological tense marking that corresponds to the absence of nominative Case, but the absence of semantic tense (Alexiadou & Anagnostopoulou 2002, referring to Varlokosta 1994). The examples in (49) suggest that the subjunctive is compatible with temporal adverbs (independently of the main clause), and hence that the subjunctive does have semantic tense.

(49) a. Ntsana mw-aa-pheela wiira k-aapey-e esheeni elelo?
y'day 2SG.SM-IMPF.CJ-want COMP 1SG.SM-cook-OPT 9.what today

[18] There is one morphological exception: only when the subject is a noun in class 1 does the prefix change, from *o-* in the main clause (v.a) to *a-* on the subjunctive (v.b). The *a-* prefix seems largely restricted to dependent clauses (Güldemann 1996, but it is unknown whether this correlates with finiteness at all (and there is no one-to-one relation, as we shall see in section 5).

(v) a. O-náá-khúwá paáhi. Makhuwa
1SM-PRES.DJ-bark only
'He is only barking.'
b. Oo-mánáníhá wiírá a-var-é nuḿmé ńne.
1SM.PERF.DJ-try COMP 1SM-grab-OPT 5.frog 5.DEM.III
'He tried to get that frog' / 'he tried that he would get that frog.'

'Yesterday, what did you want me to cook today?'

b. Mwi-nni-pheela k-uu-tumih-er-e=ni olavilavi meelo?
2PL.SM-HAB-want1SG.SM-2SG.OM-sell-APPL-OPT=PLA 14.trick tomorrow
'Do you want me to sell you a trick tomorrow?' Makhuwa

Third, although the subjunctive verb form can occur in a subordinate clause, it can also be used in a main clause with an optative reading, hortative or imperative reading, as shown in (50) and (51).

(50) M-vir-é.
Makhuwa
2PL.SM-pass-OPT
'Come in!', lit: 'you (may) pass'

(51) Ni-ń-kóh-e ntsíná n-áwé.
1PL.SM-1OM-ask-OPT 5.name5-POSS.1
'Let's ask for his name.'

Importantly, when the subjunctive occurs in an embedded clause, this can be introduced by a complementizer, as in (49) above and (52). These data show that the subjunctive clause is a CP.

(52) Ki-m-phéélá wiira nhím-ááká a-som-é. Makhuwa
1SG.SM-PRES.CJ-want COMP 1.brother-POSS.1SG 1SM-read-OPT
'I want my brother to study.' / 'I want that my brother studies.'

This resonates with Sitaridou (2006), who suggests that nominative Case is related to independent sentencehood. That is, T is dependent on C in order to be finite and license nominative Case. This I argue to be the property linked to Case-licensing in Makhuwa as well.

In summary, a full DP subject is allowed in a subjunctive complement clause, but not in an infinitive. The various properties associated with finiteness show that subjunctive clauses in Makhuwa are "more finite than infinitival V-complements but less finite than main clauses" (Givón, 2001: 338). The crucial characteristic in Makhuwa to license Case is independent sentencehood (presence of C), and I argue that the subjunctive in Makhuwa therefore does assign Case to its subject (see also the discussion of the durative 'gerund' in section 6). For Matengo it remains to be seen whether the lower verb also licenses Case; an in-depth analysis of the subjunctive tenses would be needed, which must, at this point, be left for further research.

4.3. DPs in non-finite sentential subjects

The third environment in which we find non-finite clauses is when they function as the subject of a sentence. In (53), the clause 'to win the game' is non-finite and T can hence not license the Case of the subject within that clause, 'Sammy'. This can be seen in the English translation, where the preposition 'for' is needed to license the subject DP. The fact that such a prepositional licenser is not needed in

Lubukusu is an argument to say that the subject DP does not need to be Case-licensed, and shows that there is no evidence for Case in these environments.

Lubukusu (JE31c, Diercks 2012:261)

(53) Sammy khu-khila ku-mw-inyawe o-kwo khu-la-sanga-sya mawe.
1Sammy INF-win 3-3-game DEM-3 15SM-FUT-please-CAUS mother
'For Sammy to win the game will please his mother.'

The same construction is not possible in Matengo: although an infinitive can be the subject, and a null PRO subject is grammatical (54a), an overt DP as the subject of that infinitive is not licensed. The sentence is either interpreted with the DP as a vocative (55a), or repaired by inserting a preposition *kwaka* (55b).

(54) a. Kúula sáape. Matengo
15.eat good
'To eat is good.'

b. * Áídan kúula sáape.
Aidan 15.eat good
int. 'For Aidan to eat is good.'

(55) a. Áídani, kúula sáape.
Aidan 15.eat good
'Aidan, eating is good!'

b. (Ni-holalé) kwaka Áídan kúula sáape.
(1SG.SM-think) for Aidan 15.eat good
'(I think that) For Aidan to eat is good'

Although in Makhuwa in the first instance it seemed to be possible to have an overt subject in a non-finite sentential clause (56a), my informants all indicated alternatives: the use of a preposition (56b), an obligatory pause implying an analysis as a vocative (57a), or a different word order with a subjunctive verb form (57b).

(56) a. Coáná ophíyá Musampííkhí ti woóríkaríka. Makhuwa
1.Joanna 15.arrive Mozambique COP difficult
'(For) Joanna to arrive in Mozambique is difficult.'
'Joanna arriving in Mozambique – that is difficult.'

b. Para Coána ophíya Musampíikhi khu-khwey-ále.
for 1.Joanna 15.arrive Mozambique NEG.15SM-be.easy-PERF
'For Joanna to arrive in Mozambique was not easy.'

(57) (stimulus: (for) Maria to eat rice would be good)
a. Maríá *(,) ócá nráma w-aánáa-réera.
1.Maria 15.eat 3.rice 15SM-IMPF-be.good
'Maria, to eat rice would be good.'

b. W-aaní-réera Maríya ó-c-e.[19]
?SM-IMPF-be.good 1.Maria 1SM-eat-OPT
'It would be good if Maria ate.'

For (56a), which seemed okay initially, one informant indicated a pause before the copula, which implies a sort of paratactic structure as indicated in the second translation. These so-called root infinitives are problematic in any theory of Case. Progovac (2006) deals with these 'Mad Magazine sentences' (Akmajian, 1984) as small clauses where there is neither tense in the clause, nor Case on the subject - there is just a predication relation.

Makhuwa has yet another non-finite strategy, where the infinitive behaves like a noun[20] and its subject appears with a possessive, that is, it can be said to have genitive Case (58).[21]

(58) O-cáwá w-áwé Folóra o-kí-tsívéla. Makhuwa
15-run 15-POSS.1 1.Flora ?-1SG-please
'Flora's (way of) running I like.'

In summary, the data from sentential subjects in Matengo and Makhuwa show that overt DPs cannot surface as subjects in these non-finite clauses, unlike in the languages that Diercks (2012) studies. This shows that there are restrictions on the occurrence of overt DPs, which must be accounted for. Since these properties are traditionally associated with Case, this is taken as yet another indication for the presence of an abstract Case-licensing mechanism in these languages. Moreover, this is something that learners can pick up. Never receiving input for overt subjects in non-finite clauses provides relatively strong evidence for a restriction on the occurrence of DPs, i.e. for an abstract licensing system to be present. Finally, it also demonstrates that the proposed Case parameter does indeed not have the same setting in all of the Bantu languages.

5. Licensing the agent in a passive sentence

In this section an additional test involving the passive is introduced, which is not used by Diercks (2012). In a language without Case, we expect DPs to be allowed to appear without explicit Case licensers, such as prepositions. This should also hold for the agent DP in a typical passive, where the agent is demoted from the syntactic subject function. The agent is still part of the thematic structure, but it is not Case-licensed by the verb and hence needs a preposition ('by' in English) to appear overtly. A language like Luganda, that otherwise does not show Case properties either (Sheehan & Van der Wal 2014), allows for the overt expression

[19] The tense prefix *-aani-* is a regional variant of *-aanaa-*. See footnote 11 for the question mark as gloss for subject agreement.

[20] This is a general fact about infinitives in Bantu languages, which formally belong to noun class 15 and can hence be seen as true nouns.

[21] Alternatively, the subject can appear with the connective, which functions like a preposition 'of'. As Diercks (2012: 255) also remarks, this associative marker is rather like a preposition and not a Case marker.

i. O-cáwá w-a Folóra ti w-oóréera.
15-run 15-CONN 1.Flora COP 15-good
'Flora's running is good.'

of the agent without any preposition or case-licensing linker, as predicted by Diercks' (2012) setting for 'no [uCase]' in Bantu (cf. Pak, 2008).

(59) a. Abaana ba-a-soma ekitabo. [Luganda]
2.children 2SM-PST-read 7.book
'The children read a book.'

b. Ekitabo ky-aa-som-ebwa abaana.
7.book 7SM-PST-read-PASS 2.children
'The book was read (by) the children.'

In Makhuwa, on the other hand, a preposition *ni* is required, shown in (60).

(60) Íi, koo-vár-íya *(ni) khwátte! [Makhuwa]
ii 1SG.SM.PERF.DJ-grab-PASS by 1.fox
'Ii, I am caught by the fox!'

This preposition functions as a Case-licenser rather than an introducer of an extra argument: the agent remains present in the theta-structure of the verb (i.e. is demoted rather than removed), as evidenced by the felicity of agent-oriented adverbs and purpose clauses, as in (61).

(61) a. Mwalakhu oo-hit-iya mwayini.
1.chicken 1SM.PERF.DJ-cut-PASS on.purpose
'The chicken was killed intentionally.'

b. Mwalakhu oo-hit-iya para (hiyaano) o-n-khuura meelo.
1.chicken 1SM-cut-PASS for 1PL.PRO 15-1OM-eat tomorrow
'The chicken was killed (for us) to eat tomorrow.'

Matengo does not have a typical Bantu morphological passive construction. Instead, there are three alternative strategies (van der Wal, To appear). A first strategy is a subject inversion construction, where the agent DP is pragmatically demoted to non-topic but still functions as the syntactic subject, also triggering subject marking on the verb, as in (62a). The second alternative is a 3rd plural strategy where subject agreement is in class 2 and the interpretation is impersonal (62b). A third alternative strategy is a stative extension on the verb, which varies between an 'ability' reading and a passive reading (62c). In the latter strategy the agent DP can only be expressed if it is non-volitional (like 'the wind') and if it is preceded by a preposition *na*.

(62) a. ('What about Anna?') Matengo
Ju-lap-ui Jóoni.
1SM-hit-PERF 1.John
'John hit (her).' / 'She was hit by John.'

b. A-télik-i cháai.
2SM-cook-PERF 7.tea
'Tea was made.' lit. 'They cooked tea.'

c. Lindilíisá li-hogul-**ik**-í *(n') ũwáai.
5.window 5SM-open-**STAT**-PFV by 14.wind
'The window was opened by the wind.'

For our assessment of how abstract Case can be detected, this entails that in Makhuwa there is yet another environment (passive) that evidences the influence of Case, by requiring a preposition for DP licensing. In Matengo, this environment seems at first sight to be lacking, but the use of the preposition in the stative is also an indication of Case licensing, and the use of the consistently agreeing subject inversion strategy as discussed in section 3 also provides evidence for the presence of Case, both for the linguist and for the language acquirer.

A remaining puzzle is the existence of languages that conform to Diercks' (2012) predictions for Caselessness on other diagnostics, but nevertheless have a passive with a by-phrase. An example is Diercks' otherwise Caseless language Lubukusu (63), where the preposition *nende* is required with the overt agent of a passive clause.

(63) Ba-sasi ba-bol-el-wa nende Sammy mbo Lubukusu (JE31c)
2-parents 2SM-say-APPL-PASS by 1.Sammy that
ba-keni ba-a-rekukha.
2-guests 2SM-PAST-leave
'The parents were told by Sammy that the guests left.' (Diercks 2010: 296)

This can be interpreted in two ways: either there is Case in this small corner of the language (but it may not be enough input to posit an abstract Case licensing system), or the preposition does not just Case-license the agent, but actually introduces it. This requires further language-individual testing.

6. DPs in multiple Case positions

A final diagnostic used by Diercks (2012) is that Caseless languages should allow DPs to move out of Case positions and to more than one Case position. This is because of the presumed activity that is associated with [uCase]. In the standard Chomskyan probe-goal Agree system, an uninterpretable feature makes a goal active, and the goal is required to be active to be visible for the probe. This is known as the Activity Requirement. The relevant feature that makes a DP active and hence renders it suitable as goal for agreement and movement, is assumed to be [uCase], at least for Indo-European languages (Chomsky 2001).

(64) The Activity Requirement: each participant in an Agree relation must have an unchecked uninterpretable feature.

Under standard assumptions, an uninterpretable feature is deactivated as soon as it is valued (by Agree). This entails that if a language has Case, and if a DP agrees and/or moves, its [uCase] feature is valued and the DP rendered inactive. This in turn means that DPs with valued Case are not available for further movement and agreement. Moreover, it means that DP movement chains are

supposed to only have one structural Case, that is, DPs cannot move through/to multiple Case positions. This is intended to account for the grammaticality of the raising construction in (65): [uCase] of the DP 'John' is valued in the finite lower clause (a) and can therefore not raise to be the subject of the higher clause (b).

(65) a. It seems [that John is happy].
b. *John$_i$ seems [that t_i is happy].

However, this is not the pattern found in some Bantu languages where DPs can be 'hyperactive': they can be agreed with several times (Carstens, 2011; Kinyalolo, 1991). Thus, DPs agree with multiple verbs in complex tenses consisting of two verbs, as in (66), and in 'hyperraising' constructions (Ura, 1994) illustrated in (67).

(66) Nzogu zí-kili z-á-twaga maswá. Kilega (D25)
10.elephant 10SM-be.still 10SM-ASP-stampede 6.farm
'The elephants are still stampeding over the farms.' (Carstens 2011:722)

(67) Efula yi-bonekhana i-na-kwa muchiri. Lusaamia (JE34)
9.rain 9SM-appear 9SM-FUT-fall tomorrow
'It seems that it will rain tomorrow' (Carstens and Diercks, 2013b)

Apparently, after the first operation of Agree on the lower verb, which should value [uCase] and render it inactive, the DPs in these constructions are still eligible for further operations and appear in multiple Case positions. This suggests that DP chains are not limited to one Case feature, or alternatively, as Diercks (2012) argues, can be accounted for more elegantly by assuming the absence of Case (cf. Baker 2008). In addition, hyperagreement argues against the role of Case as an activity feature. In the following, two lines of argumentation are discussed that have been proposed to account for these facts, the first addressing the role of [uCase] as an activity feature, and the second examining the role of finiteness in Case valuing.

If the Activity Condition holds, and if [uCase] is indeed inactive after valuation or indeed if there is no Case at all, there must be some other uninterpretable unvalued feature that makes DPs active in these languages.[22] Carstens (2005, 2011) proposes that [gender] is the relevant activity feature in Bantu. She argues that [gender] functions as an uninterpretable but valued activity feature on the subject DP. If agreement is concerned with valuing a feature, and if [ugender] already has a value but remains uninterpretable hence active, any DP with [gender] will remain active as a goal, allowing it to enter into more than one Agree relation. This suggestion is implemented by Diercks (2012) and Carstens and Diercks (2013), claiming that this makes [uCase] superfluous in the languages they discuss. A weaker thesis can be formulated that Case does not

[22] Alternatively we could argue that the Activity Condition does not apply, either for Bantu or in general (see Nevins 2004, Bošković 2007), or that a DP can have multiple structural Cases (Bejar and Massam 1999, Richards 2013, Pesetsky 2014), while still excluding inherent-structural case combinations like Icelandic (Jónsson 1996, Sigurðsson 1989, 1992 Bošković 2002) and 'case stacking', this not being a reflex of multiple structural Case on the same DP (Schütze 2001, on Korean). I will leave these analyses to one side here.

play a role but is present (as Carstens 2005 still assumes), but if [gender] takes over the role that [uCase] plays in Minimalist analyses of other languages, then the stronger thesis should be that Case is effectively absent in these languages. I refer the reader to the cited works for a full explanation of how [gender] can be an activity feature, and will here only concentrate on its effects for the parameterization of Case.

In the tests discussed in the previous sections, languages with Agreeing Inversion showed properties different from the languages Diercks (2012) bases his analysis on. Perhaps surprisingly, hyperagreement is attested in Bantu languages with Agreeing Inversion as well. Multiple verbs displaying subject agreement can appear in sentences with complex tenses, as illustrated in (68)-(70).[23]

(68) Vánó<u>ki</u>-hááná <u>ki</u>-thel-áka. Makhuwa
PTCL 1SG.SM-have 1SG.SM-marry-DUR
'Now I have to marry.'

(69) Nguúwo <u>ji</u>-w-elé <u>ji</u>-ni-nyáúuka. Makwe
10.clothes 10SM.be. PAST.PERF 10SM.PRES.PERF.be:dirty
'The clothes were dirty.' (Devos 2004: 283)

(70) <u>Tw</u>-a-ba <u>tu</u>-gon-ile. Matengo
1PL.SM-PST-be 1PL.SM-sleep-PERF
'We were sleeping, (when he arrived).' (Yoneda, 2000: 200)

This is unexpected, because if these languages have Case (suggested by the previous tests), the [uCase] feature on the DP should be deactivated in the first instance of Agree and could hence not be a goal for further Agree relations. The same solution as proposed for Swahili hyperactivity (Carstens 2011) can also be applied here: multiple agreement can be accounted for by assuming [u-gender] as the activity feature. But even if [gender] is an activity feature, which would be natural for a Bantu language showing [gender] as pairs of noun classes, this does not form a clear argument against the presence of Case: after all, nothing restricts a language from having uninterpretable valued [u-gender] as well as uninterpretable [uCase], even if this might initially seem somewhat uneconomical from a theoretical perspective.

Before resorting to such doubling of activity features, we need to have a close look at the actual instances of complex tenses in order to see whether the verbs involved are all potential Case licensers and the DP really occupies multiple Case positions. If it can be shown that only one Agree relation involves Case licensing, these examples with multiple agreement are not an argument for the absence of Case. This is the situation found in languages which clearly do have Case. Baker (2008: 210) notes that Indo-European languages can also have double agreement, but this "only happens when the lower verb is an adjective-like participle, which agrees with the subject in number and gender but not in person". "Participial heads do not value the case of the DP that they agree with. Thus they do not compete with the finite T associated with the auxiliary verb in

[23] As mentioned before, Makhuwa and Matengo do not have evident raising verbs, so hyperraising is not encountered either.

this respect, so nothing prevents that T from both assigning case to and agreeing with the NP" (Baker 2008: 210). As mentioned in section 4, the lower verb's inability to license Case has been connected to three properties: incomplete ϕ features, the absence of Tense, and independent sentencehood, all related to finiteness.

These properties were discussed for the subjunctive in section 4, and are here discussed for the Makhuwa 'have to' construction, as given in (68). This construction consists of a higher verb *-haana* 'have' and a lower verb in the durative situative tense, ending in *-aka-*. The question is hence whether the durative verb form is "finite enough" to license nominative Case. It turns out that the durative does not show all signs of finiteness, thus not being comparable to the cases Carstens (2011) discusses. After reviewing the various properties in the next paragraphs, I will conclude that Makhuwa shows no movement to or from multiple Case positions.

With respect to ϕ completeness, Ferreira (2004), Martins and Nunes (2006) and Nunes (2008) argue that the lower verb in Brazilian Portuguese hyperraising is ϕ incomplete and thus does not license Case. In Makhuwa and Matengo, subject agreement on the lower verb is possible in all persons and noun classes, as seen in (68)-(70) above.[24]

The second property is the absence/presence of Tense, which Iatridou (1993) and Alexiadou and Anagnostopoulou (2002) say is involved in Greek hyperraising. If nominative Case licensing is related to Tense, then a Tense-less clause cannot license a subject. This is true for the durative situative verb form when used outside the 'have to' construction, i.e. as an adverbial clause as in (71). Here, the durative does not have independent time reference, but encodes the relative temporal relation with respect to the time of the event in the main clause (Noonan, 2007). For the durative, this means that the situation holds simultaneously with the main clause event, whether that is in the present/future (71a) or the past (71b). Hence, the durative expresses aspect, but not tense.

(71) a. Ki-ná-wúú-théla ntsúwá ni-khum-áká omakhúwáni.
1SG.SM-PRES.DJ-2SG.OM-marry 5.sun 5SM-exit-DUR 17.coast
'I'll marry you when the sun sets in the east.'

b. Oo-vírá a-purúléy-aka tsiítsáale.
1SM.PERF.DJ-pass 1SM-crawl-DUR like.that
'He passed crawling like that.' Makhuwa

Furthermore, there is no evidence for a separate semantic tense: in (72a) the adverb can only refer to the combined 'have to marry', as seen in the ungrammaticality of separate adverbs in (72b).

[24] Martins and Nunes (2006) connect the possibility of hyperraising to the severely impoverished agreement paradigm in Brazilian Portuguese. They state explicitly that "we should not expect to find any instances of hyper-raising in a morphologically rich language", which holds true for European Portuguese, but not various Bantu languages.

(72) a. Ki-haana ki-thel-aka elelo.
1SG.SM-have 1SG.SM-marry-DUR today
'I have to marry today.'

b. * Ntsana k-aa-haana ki-thel-aka elelo.
yesterday 1SG.SM-PAST-have 1SG.SM-marry-DUR today
'Yesterday I had to marry today.' Makhuwa

The third characteristic is the capacity for independent sentencehood. Crucially, the situative tenses are always dependent, functioning like a converb (Carlson, 1992; Haspelmath and König, 1995; van der Wal, 2014). That is, the durative can only appear in a subordinate clause and is comparable to a gerund: the main clause 'he crawled' cannot be omitted in (73).

(73) O-h-iípúrúla o-h-iípúrúlá a-pheél-ák' ocáwa.
1SM-PERF.DJ-crawl 1SM-PERF.DJ-crawl 1SM.SIT-want-DUR 15.flee
'He crawled and crawled, wanting to flee.' Makhuwa

Furthermore, the durative clause is never introduced by a complementizer. These are essential differences between the subjunctive (discussed in section 4.1) and the durative. Although they behave the same for ϕ features, the subjunctive provides evidence of being an independent CP and allowing temporal adverbs, whereas the durative in the 'have to' construction does not.

For this particular construction of *-haana* with a durative, it appears that the lower verb does not license Case and hence that the Case of the DP is only valued once, by the finite auxiliary *-haana*. This could be captured in the same way participles in European languages are analysed (Kayne, 1989), or in Henderson's (2006) analysis of hyperagreement in Bantu, where he proposes that there is only one Agree relation (with the highest verb) and the 'multiple agreement' is actually concord on the lower verb with the highest verb.

I conclude that Makhuwa is not likely to have true hyperagreement.[25,26] For the other languages with Agreeing Inversion (such as Matengo, Makwe, Matuumbi) it remains to be investigated "how finite" the lower verb is. If there is true multiple agreement, this would suggest that Case cannot be the (only) feature that makes DPs active goals.

In summary, multiple agreement is also a unidirectional diagnostic: if a language prohibits the movement of DPs from a Case position (as in English), this argues for the presence of Case. If, on the other hand, the language allows

[25] It would be interesting to apply the same diagnostics to Diercks' Caseless languages, i.e. check independent temporal reference for instances of hyperagreement.

[26] Apart from the 'have to' construction, Makhuwa does not show many other instances of what could be multiple agreement. One is sentences with 'be' followed by a verbal-looking form as in (vi.b), but they also turn out not to be what they seem: the tonal pattern on the second "verb" in (vi.b), to be compared to the real inflected verb in (vi.a), shows that this is actually a connective *tsa* plus infinitive *oveliya*, functioning like an adjective.

(vi) a. Ekokhólá tsoo-vél-íya. Makhuwa
10.rubbish 10SM.PERF.DJ-sweep-PASS
'The rubbish was swept.'

b. Ekokhólá ts-aá-rí ts' oó-vél-iya.
10.rubbish 10SM-PAST-be 10.CONN 15-sweep-PASS
'The rubbish was swept.' (lit. was of being swept)

hyperagreement, this can be explained in a number of ways, which do not necessarily inform us about the status of [uCase]. Alternative explanations are: the Activity Requirement could be argued not to hold here, or not to exist at all (Bošković, 2007; Nevins, 2004); Case could be relevant for licensing but not for activation; hyperagreement does not involve multiple Case positions or agreement/valuation operations; and/or there could be a second or alternative activity feature that does not get deactivated, such as [u-gender].

7. Conclusion

Even though Case may be parameterized, as Diercks (2012) proposes, microvariation within the Bantu language family shows that it is not correct to characterize the whole language family in terms of a parameter setting "no [uCase]". Diercks (2012: 283) rightly asks in his conclusion "what explanatory value does Case theory have for Bantu languages?". The available data in Matengo and Makhuwa show that abstract Case in these languages can explain

1. the consistent agreement with the logical and grammatical subject, irrespective of its position in the sentence,[27]
2. the absence of Locative Inversion and Default Agreement Inversion,
3. the default agreement in cases where there is no nominative DP,
4. the ungrammaticality of overt DPs in non-finite clauses, and
5. the need for a marker to introduce the overt agent DP in a passive.

More importantly, these restrictions on the agreement with and appearance of overt DPs constitute consistent evidence for the presence of abstract Case in various linguistic environments. This is plausibly enough concrete substantiation for a language acquirer to pick up on an abstract licensing system, which makes it learnable in Matengo and Makhuwa, but not so in languages like Luganda and the Bantu languages that Diercks (2012) examined. One of the questions is what forms enough evidence to postulate formal or uninterpretable features. As an example of an easy case, in all Bantu languages, features such as noun class (gender) are so abundant in the input that it is virtually impossible for a language acquirer to *not* pick up this formal feature. On the contrary, DP licensing (i.e. a Case feature) is much less prominent - especially when compared to languages that do have systematic case marking. Nevertheless, we can clearly observe a difference in terms of input between on the one hand the languages that Diercks' (2012) discusses and on the other hand Makhuwa and Matengo: in the five environments identified, Makhuwa and Matengo arguably provide the learner with more and consistent evidence for an abstract DP licensing system than the other languages.

A further question is whether Case is always a macroparameter. There are two alternatives to the macroparametric view. One is that abstract Case does not exist at all, hence that there is no parameter. McFadden (2004) and Sundaresan & McFadden (2009) propose that the restrictions in occurrence of overt DPs can and should be accounted for through selectional restrictions on clausal complements, where independent complements take overt subjects (+R) and temporally and referentially anaphoric clausal complements select for covert subjects (-R, PRO). Note, however, that the selection analysis does not account

[27] Note that this property is not accounted for in Sundaresan & McFadden's (2009) proposal, which only accounts for the occurrence of overt DPs.

for the consistent subject agreement in Agreeing Inversion languages, or for the restrictions in non-finite clausal subjects.

A second view is held by researchers like Wiltschko (2011) and Danon (2006), who also assume that the Case Filter does not hold, but crucially propose that this may be parameterized within a language, on a microparametric level. That is, some nouns need Case licensing whereas others do not, e.g. DPs need Case and NPs not. The NP/DP distinction for Case has been proposed for Bantu languages by Ndayiragije (1999) and Baker (2003). There is another way in which Case may be microparameterized, namely with respect to which clausal heads license Case. It has been proposed that even if T may not be associated with Case, the v-domain could stil be. Halpert (to appear) claims that a Licensing projection just above vP licenses Case in Zulu, accounting for subject-to-object raising and the distribution of augmentless nouns. Carstens and Mletshe (to appear) propose for Xhosa that if v is defective, so is T. Case in their analysis is assigned by a FocP, explaining the obligatorily narrow focus interpretation of S in VSO order. Both proposals amount to having Case in the lower part of the clause (accusative?) but not the higher (nominative), i.e. not a macro- but a microparameter.

There are obviously many open questions regarding the licensing of overt DPs and the parameterization of Case. However, if Case is indeed a formal feature that is active in the syntax, then we should under Minimalist assumptions have (at least) two expectations. First, we expect languages to be parameterized in whether and to what extent languages employ this feature, forming parametric hierarchies as proposed by Roberts and Holmberg (2010). Second, if UG is truly minimal in its initial state, we expect features to not be given but emergent, (Bazalgette, In progress; Biberauer, 2014; Biberauer and Roberts, to appear; Gianollo et al., 2008; Wiltschko, 2014) implying that the input should be rich and unambiguous enough for the acquirer to identify the necessity to postulate a formal feature (Evers and van Kampen, 2008; Fasanella, 2014); see also Fasanella and Fortuny (2013) for a link between learnability and syntactic variation. Without case morphology and in the absence of a clear interpretable counterpart to uCase, the evidence for abstract Case is to be found in the syntactic diagnostics discussed in this paper (cf. Sheehan and van der Wal, 2014).

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