1
Aspect and tense

1.1   Aspect

1.1.1 Perfective, Perfect, Factative

While a minority of Niger-Congo families have tense contrasts, all have aspect. Five aspects are widespread in Niger-Congo: Factative (FAC)/ Perfective (PFV), Imperfective (IPFV), Perfect (PFT), Progressive (PRG), and Habitual (HAB)/Iterative. Others are less widespread and not dealt with here in any detail: Inceptive, Situative, etc. Since parts of this statement might not seem self-evident to some readers, it needs explanation.

Perfective denotes a "complete situation" and "often indicates the completion of a situation when contrasted with an imperfective situation" (Comrie 1976:18,19). There is an obvious close connection between perfectives and past situations, because it is past situations that are most often complete. In many languages perfectives can also represent non-past situations.

Perfect[1] denotes "a situation that started in the past but continues into the present" or "the continuing present relevance of a previous situation" (Comrie 1976:52, also Bybee et al (1994:54,57,318). It focuses on the result phase, immediately subsequent to the situation. Examples: Bajuni (Swahili dialect) **i-ndo-vunda** 'It is rotten.' (-**vunda** is a stative[2] verb), but **Masudi ndo-andoka** 'Masudi has gone out.' (-**andoka** is a dynamic verb).

Factative[3] is not likely to be familiar to many readers outside West African linguistic circles. Attention was first drawn to it by Welmers (1973:346), whose formulation has been repeated since in slightly modified form by others (e.g. Faraclas 1984, 2007, Faraclas et al 2007). In this formulation, Factative has two characteristic features. Structurally, it is nearly always an unmarked form, either a zero form or the least marked aspectual form in a language. In particular, in contrast with Imperfective, it will generally be the unmarked form. Functionally, when used with non-stative or dynamic verbs, it typically represents past, complete, situations, but when used with stative verbs, it represents current, non-past, incomplete, states, that is, presents or futures. Welmers (ibid) says: "(Factative) expresses the most obvious fact about the verb in question, which in the case of active verbs is that the action took place, but for stative verbs is that the situation obtains at present".

Although that characterization fits many cases of Factative in the sample languages, it does not fit all. Structurally, some languages (e.g. Bambara, Bijago, Degema) have added new suffixes at FV to mark Factative, while others (e.g. Ejagham, Godie) mark the contrast between FAC and IPFV only by tones, so it is hard to tell which is the unmarked form. Functionally, while Factative representing past situations with dynamic verbs and present situations with statives is the normal situation with most of the sample languages, it has expanded its role in some language. Thus[4]:

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[1] Also called Retrospective or Anterior.

[2] See Comrie (1976:48) for 'state' versus 'dynamic situation'.

[3] Also called Aorist or Performative.

[4] These are not the only examples. Childs (1998:314, fn 121) that the "Perfective" (our Factative) can be used of the imminent future, and in Makaa the Factative can translate as 'be about to verb'.

(1)   **Expanded role for Factatives in some languages**

a   Doyayo   **mi^3 kpe^{4}l-ɔ^4**   'I pour' or 'I poured'
                  mi^1 kpe^{4}l-ɔ^4   'I will pour' (remote future)

b   Ejagham   **a-gbɔ̂**   '3s fell' (past)
                   tíg a-gbɔ̂   '3s will fall' (future)

c   Obolo   **´n-ge íkpá**   'I write a letter' or 'I wrote a letter'

d   Otoro   **liji li-rit-ɔ**   'People dance'
                 liji li-rit-ɔ likarage   'People danced yesterday'

                 ŋi gwu-dir-ɔ   'I sleep' or 'I slept'

e   Yoruba   **mo-o**   'I go', 'I went', 'I will go'

f   Zande   **mi-kpár-á**   'I divided (the meat)'
                 mi-ní-kpár-á   'I always divide'
                 mi-a-ná-kpár-á   'I will divide … right away'

All the forms in (1) are Factatives. In some (Doyayo, Obolo, Otoro) the Factative can represent past or present with any verb, and in Yoruba it can even represent the future. Time is clarified by the context or by use of a time adverbial. Change of tone makes the Doyayo Factative into a future: addition of a time adverbial has the same effect in Ejagham: and use of prefixes produces various functional effects in Zande.

John Hewson has examined the analysis of Akan by Boadi (2008), who deals with the functions of a form he calls Habitual. These include several factative-like functions but also others which are reminiscent of performatives ("I bet you X"), leading Hewson to conclude that Performative would be a better label than Factative, because the functions of such forms are wider than those outlined for Factative by Welmers. Because this chapter focuses on African languages, it retains Factative, but Hewson discusses Performative further at the end of this manuscript[5].

It ought to be clear from what has been said so far about Perfective, Perfect, and Factative that they share areas of overlap so the differences and similarities need to be made clear. Perfective and Perfect both represent complete situations but whereas Perfectives show no particular connection to the present ('He lived in Lagos for twenty years', the implication being that he doesn't now), Perfect representations do show such a connection ('He has lived in Lagos for twenty years', the implication being that he still does). Perfects and Factatives are superficially quite similar to each other, especially in their both distinguishing dynamic from stative verbs. They differ structurally, in that Factatives are typically unmarked, whereas Perfect marking tend to derive from grammaticalizing auxiliary verbs such as 'finish' or by modifying Perfectives in some way. They differ functionally in their attention to the result phase, which is

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[5] Performative is discussed at some length in Hewson & Bubenik (1997:10-18).

central to Perfects but not important to Factatives. Finally, Perfectives and Factatives differ most obviously in their treatment of stative verbs: Perfectives have the same morphology for both and the same, complete, meaning for both kinds of verb, where Factatives have the same morphology for both but have different meanings.

One characteristic feature follows from this discussion of Factative, Perfective, and Perfect. Together they make for a crowded semantic and functional space and it is in fact exceptional that all three co-occur[6]. It is especially unusual for Perfective and Factative to occur together, while the co-occurrence of Perfect and Factative is quite common in Niger-Congo (see (2)), as is Perfective and Perfect elsewhere.

1.1.2 Incompletives

Standing in contrast to Factatives and Perfectives is a set of incompletive categories: Imperfective, Progressive, Habitual/Iterative, (and others).

The term 'Imperfective' occurs with two meanings in the sample languages. In some languages it is a superordinate, being the only incompletive category to contrast with Factative (or Perfective). This can be seen in (2) in Bambara and Degema. In other languages it is one of several incompletive categories, co-ordinate with Progressive, Habitual, Iterative, and others.

In both usages, Imperfective is a wide incompletive, seeing a situation from the inside: the situation has started, the speaker knows not when or it is unimportant, it is ongoing, and will likely continue. Progressive is a more focused type of imperfective, which narrows attention to the temporal space around the time of reference or speaking. As such, it is incompatible with stative verbs, whose emphasis is on more permanent state (*I am knowing). The class of stative verbs has a fairly common core across languages but has some intralinguistic variation.

Habitual represents a 'situation…characteristic of an extended period of time, so extended that ..the situation..is viewed,..as a characteristic feature of a whole period' (Comrie 1976: 27). An Iterative represents a situation that is repeated, an incomplete series of complete events. While the distinction between Habitual and Iterative is easy enough to grasp objectively, in practice it is not so clear. Some sources describe as Iterative situations what others label Habitual. The examples provided in the sources do not always clarify the situation, being often just one-word translations. So while (2) uses the two labels in some cases, generally following the source, this section often refers to them as Habitual/Iterative, thus admitting ignorance.

1.1.3 Factative versus Imperfective, the final vowel (FV)

A fundamental binary aspectual distinction is often made between Perfective and Imperfective (e.g. see Comrie 1976:25). However, most Niger-Congo families distinguish rather Factative and Imperfective, with Imperfective being used in its widest, incompletive sense. As (2) shows, all but four of the sample languages/families have Factative, not Perfective. Even the four are doubtful: we simply do not have access to enough diagnostic data to be sure about Aghem, Dogon, and Supyire, and although many Bantu languages have a Perfective, we are not sure how many others, in the northwest and perhaps elsewhere, have a Factative instead. We have made the conservative default judgement that a lack of hard evidence indicates Perfective, not Factative, but had we made Factative the default case, then probably 20 out of 21 would have

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[6] Gikuyu (Hewson & Nurse 2005) is one apparent exception, and Hewson (p.c) feels that Boadi's (2008) treatment of Akan aspect can be interpreted as showing all three co-occurring.

shown a Factative, not a Perfective. Factative is more widespread in non-Bantu Niger-Congo than many have hitherto assumed, as it stretches from Kordofanian and Ubangi, in the east, to Atlantic in the far west. (2) is intended to give a general outline of the distribution of aspects in the sample languages. It shows which aspects occur, how they are encoded, whether by suffix, the use of auxiliary, or in other ways, and it also shows general details of marked versus unmarked.

(2)   **Aspectual contrasts in Niger-Congo**

Language (family)	Aspects and marking
Aghem (Grassfields)	Unmarked PFV versus IPFV (*-**ag**). Also HAB (IPFV post-verbal **tsigha** (< 'pass'). Possibly others. Other Grassfields have a whole FAC category but Aghem seems to have just the single form.
Bambara (Mande)	FAC (AUX **yé** with trans, -**ra** with intrans) versus IPFV (AUX **bɛ́**) and a shifter **tun**). **Yé** and **bɛ́** both forms of 'be'.
(Narrow) Bantu	Most Bantu lgs have unmarked PFV, IPFV (-**a(n)g-a**), PFT (-**ile**), HAB (as IPFV), PER (-**ki**-, also SIT), PRG (be + loc) are the most frequent aspects. FV -**i** and vowel harmony also occur (near past, perfect).
Bijago (Atlantic)	FAC (FV -**e**, or post-SM vowel copy of stem vowel, so "unmarked") versus IPFV (-**i** either at FV or post-SM). Also PFT (prefixal or FV), and prefixal passé neutre, virtual, enfin, PER, etc.
Degema (Volta-Niger)	Unmarked FAC versus PFV -**Vn**. Also PFT (-**te**-/-**de**).
Dogon	PFV (-**i**) versus IPFV/PRG (-**ze**) versus PFT (-**aa**) versus HAB (as IPFV but different tone versus ITR (reduplication). PFV = FAC?
Doyayo (Adamawa)	FAC (-**ɔ**) versus IPFV (-**kɔ**). IPFV does not occur alone but with other morphemes at AUX (**gɔ** HAB/POT; **da** Remote; **za** Undesirable; **gi** PRG; **nɛ** Past/Prior), etc.
Ejagham (Ekoid Bantu)	FAC (structurally zero, but tone) versus IPFV/HAB (-**ag**) versus PRG (-**ki**-) versus PFT (as FAC but tonally different) versus REP = PER.
Ewe (Kwa)	Unmarked FAC versus IPFV/HAB (-**na**). Also ITR (AUX **ga**), PRG (AUX 'be' and suffixal -**m**), PROS (AUX 'be' and suffixal -**gé**), POT (AUX **la**). Some of these may be moods not aspects.
Fula (N. Atlantic)	Fula is morphologically complex, dialectally divided, so its verbal categories are not completely transparent: FAC/PFV (-**ii**) versus PRG (AUX **ɗon** or **e** plus main verb with -**a**) versus FUT/HAB (suffix of several shapes). Also a shifter (-**no**) and a 'vague future' (-**ma**).
Godie (Kru)	Unmarked FAC (low tone) versus IPFV as FAC but mid tone) versus PFT (-**a**) versus PRG ('be at'). ? Also PFT (AUX **yV**) ? Are the two PFTs two past tenses?
Ijo (Ijoid)	FAC (-**mɪ**),versus IPFV (two allomorphs, **tími** (AUX) refers to PFV

	events, and **-yémi**, refers only to IPFV situations), HAB (IPFV + reduplication), PFT (**-dɔ́ ʊ**), FUT (**-ŋí(ʍɪ)**). Note distinction AUX versus Suffix. ?"Present (Stative"?) (-(**wó)nimí**), "Remote Past/Past State"? (**wɛ́rí-mí**)
Jukun (Benue-Congo)	Unmarked FAC versus IPFV (**-ri-**). Also PTF (**-n ri-**), HAB **-nəm-tí-**), PFV-HAB (**-nəm-Ø-**).
Kabiye (Gur)	FAC (**-á**) versus IPFV (**-ki-**/**-Vgh**) versus "Aorist". What IS the aorist? = SBJ? PRG and HAB expressed by AUXs plus main verb.
Kisi (S. Atlantic)	FAC (**-u**, LH) versus PRG (AUX **co** plus lengthened FV) versus HAB (as FAC but LL). PFT is FAC plus adverbial **niŋ**.
Makaa (NW Narrow Bantu)	Unmarked FAC versus HAB (AUX **dʊ**) versus PRG (AUX (**ngə**) versus PFT (AUX **mə́**).
Obolo (Cross River)	Unmarked FAC versus IPFV (**-kí-**). Also ?PRG (**-gâ(-kî)-** or **-mê-(kî)-**), ?Subordinate (**-ke-bí-**), ?PFT (**-ba-** or **-ri-**, optionally followed by **-bé-** or **-ré-**, followed by infinitival **í-**), HAB)-ké-kí-.
Otoro (Kordofanian)	FAC (**-u/-ɔ**) versus IPFV/VENTIVE (**-a/-o**) versus ? SBJ (**-i/-ɛ̃**)). Also HAB (**-aṯi-** and IPFV), PROS (**-a-** and IPFV), PFT (**-ma-** and IPFV), PRG ('be' + FAC main verb).
Supyire (Senufic)	Unmarked PFV/FAC versus IPFV (**-li**, **-ni**, **-re**, **-ge**). Also HAB (AUX **maha**), PFT AUX **a**), PER (AUX **sáhá**), POT (AUX **kú**), all with PFV, and HAB (AUX **maha**) and PRG AUX **na**), both with IPFV.
Yoruba (Volta-Niger)	Unmarked FAC versus PRG (high-toned [n] versus PFT (**ti**). Also INC/PER (IPFV plus **máa**) and FUT (**yó** or **á**).
Zande (Ubangi)	Unmarked IPFV(?) versus FAC (vowel copy suffix). These combine with several prefixes indicating tense, aspect (HAB), mood, and clausal status of the verb.

Certain features stand out from the tabular presentation in (2). Most pervasive is the contrast between Factative/Perfective and Imperfective, which occurs in nearly all the sample languages[7]. While it would not be accurate to say that the Factative is unmarked in every case, it is in many, and it would be accurate to say that if one of the two is unmarked, it is usually the Factative[8]. It is also true that the marking of the contrast has much to do with the FV, a point taken up below. Following Factative and Imperfective, the commonest aspects are Perfect, Habitual/Iterative, and Progressive, in that order, all three occurring in at least half of the families. Perfect is not linked to any obvious single morphological pattern. Progressives are often linked to 'be' and a locative ('in, at') or nominaliser. Habitual/Iteratives are partly expressed by reduplication but more obviously by being connected to the Imperfective: Imperfective subsumes Habitual, or Habitual is based on the Imperfective plus another feature, or is the Imperfective

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[7]The only languages not clearly to have this are Kisi and Makaa, which contrast Perfective, not with a single incompletive but with Habitual and Progressive. Details of these were scant so we were loath to recategorise either as general Imperfective.

[8] Some languages distinguish Factative and Imperfective only tonally. In such cases it is hard to distinguish marked and unmarked.

form of an auxiliary plus a main verb. Habituals are more obviously similar, functionally and morphologically, to Imperfective than are Progressives.

Finally, the range of categories and morphology occurring at FV is fairly limited, whereas that in the pre-verb position is massive, reflecting the analytic nature of the verb and the variation that occurs between verb and subject. Since Factative and Imperfective are mostly expressed at FV, with the other aspects (and tenses) mostly in the large pre-verb position, that reinforces the impression that Factative and Imperfective are more fundamental and ancient than the others, which are built around them. This should not be interpreted to mean that at an earlier point only Factative and Imperfective existed – nearly all families show evidence that some of these other categories and their morphology, while quite disparate from family to family, are long standing.

General mention has been made of the verb nucleus root - extension - final vowel (FV), being of considerable antiquity in Niger-Congo, and of the FV suffix as the carrier of aspect in that nucleus. Just over half of the families surveyed still have the discrete FV slot. A few families no longer have any trace of the FV, apparently because they have shortened the verb stem, and one of the first victims was the final vowel. Others have a portmanteau Suffix, which rolls together some former EXT morphemes and some from FV. Yet others have innovated morphemes at FV, suggesting that FV was not a closed set – because of its final position, it attracted and grammaticalized adjacent material, such as auxiliaries, adverbials, or particles.

(3)   **Factative/Perfective versus Imperfective alternations at FV**

Language	Verb structure
Aghem	No traces of inherited FV alternation occur because "no final theme vowels occur in Grassfields" (Watters 2003:245). The /-**a**/ is from /-**ag**/.
Bandi, not Bambara (Mande)	Although no traces of inherited FV alternation founding Bambara, they occur in other Mande languages, e.g. Bandi: **i ha-i** 'He died (FAC), **i ha-a** 'He is dead' ("stative")
Bantu (Lokele C55)	**to-Ø-kol-í** 'We did' (PFV), **to-Ø-kol-a** 'We always do, will do', **to-kol-ek-e** SBJ
Bijago	**ibooti i-tont-ɛ** 'Dogs jumped' (FAC), **ibooti i-tont-i** 'Dogs are jumping' (IPFV)
Degema	No traces of inherited FV alternation found, though there are new morphemes in verb-final position.
Dogon	**gɛɛndɛ-m** 'I 'll look', **gɛnd-i-m** 'I looked', **gɛnd-aa-zɛ-m** 'I have looked'. FV in the first example is the lexical vowel, in the second the PFV (FAC?), in the third the PFT[9].
Doyayo	FAC **kpel-ɔ** 'He poured', **toot-ɔ́** 'He grew = is big'. The IPFV is an apparently innovated suffix -kɔ.
Ejagham	No traces of inherited FV alternation found, though there is an FAC Focus form with -**í**/-**ɛ́**, status and origin unclear. Tonal alternations may point to lost FV.

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[9] Old FVs in Dogon are now followed by suffixal morphemes for aspect, negation, and subject. This contrasts with the morphological structure of the verb elsewhere in Niger-Congo. Ijo has auxiliaries suffixed to the verb as aspect markers.

Ewe	No traces of inherited FV alternation found, though there are new morphemes in verb-final position.
Fula	**o war-ii** 'He came' (FAC), **o-don-war-a** 'He is coming' (IPFV). Fula has many other vowels at FV, in various roles.
Godie	Godié distinguishes FAC (low) from IPFV (mid) tonally. Marchese says Proto-Kru also distinguished FAC (unmarked) and IPFV (front vowel suffix with vowel harmony) segmentally, as do some Kru varieties today. Godie also has **-a** PFT.
Ijo	No traces of inherited FV alternation found, though new morphemes occur in verb-final position.
Jukun	Only **-e**/-**ɛ** occurs, with tonal variation (NEG, IMP, SBJ)
Kabiye	While in Kabiye only FAC **-á** was found, other Gur languages show the inherited FV alternations, e.g. Ditammari: **o twɔk-á** 'Il est arrivé' (FAC), **o twɔk-u** 'Il arrive' (IPFV)
Kisi	No traces of inherited FV alternation occur (maybe **-a**, function unclear).
Makaa	No unambiguous traces of inherited FV alternations found. Other Northw languages do have such traces (**-a** 'neutral', **-i** 'Past, PFT), **-e** SBJ), see Bantu above.
Obolo	No traces of inherited FV alternation found.
Otoro[10]	**ŋi-gwu-Ø-man-u** 'I cook, cooked' (FAC), **ŋi-gw-ati-man-a**[11] 'I cook' (IPFV) **ŋi-gw-a-man-i** 'I may, shall cook' ("subjunctive-like"). FV in the first example is the lexical vowel, in the second the IPFV, in the third has many uses.
Supyire	Possible to produce pairs that seem to show inherited FV alternations, e.g. naha 'herd' (PFV/FAC), **nah-i** 'herd' (IPFV), but this is illusion, as **-i** is an allomorph of **-li** (Carlson 1994:130-5).
Yoruba	No traces of inherited FV alternation occur. Closely related Igbo has some innovated morphemes at FV.
Zande Gbaya	**sir-a** 'lick' (IPFV), **sir-i** 'licked' (FAC). This contrasts with the facts of Gbaya, another Ubangi language, where the suffixes are apparently reversed: **gɔm** 'split' (unmarked, IPFV), **gɔm-a** 'split' (marked, FAC), **kɔli** 'cough' (unmarked, IPFV), **kɔl-a** 'cough' (marked, FAC)

As (3) shows, roughly half the families surveyed have a small set of morphemes at FV consisting of a single vowel and representing aspect: Mande (Bandi, not Bambara), Bantu (not all Bantu[12]), Bijago, Dogon, ?Doyayo, ?Ejagham, Fula, ?Kru, ?Kabiye, ?Kisi, Otoro, Ubangi. Among these single vowels, /-a/ and /-i/ predominate, with the predominant functional contrast being that of Factative (-i) versus Imperfective (-a) aspect[13]. But those are not the only patterns. Some have shifted the function of the vowels. Thus Ubangian Zande and Gbaya have reversed values for the two vowels, Bijago also has /-i / Imperfective, while Ejagham has one high or at

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[10] Otoro example from Schadeberg/Stevenson, forthcoming, thanks to Thilo Schadeberg.

[11] Where Otoro has -**ati**-, neighbouring Moro has -**ti**-. It is not clear if the **a** here is the same **a** as in the third ("subjunctive-like") example.

[12] See Nurse (2008:268-276).

[13] A very few (Bantu, Jukun, maybe Ijo, Otoro) also have a final vowel indicating Subjunctive mood, consisting of a mid-front vowel. This is ignored here because we are dealing with aspect.

least non-low front vowel but apparently only for Factatives which have focus function. Some have apparently shifted the vowels. Thus Otoro has Factative[14] suffix vowels /-u, -ɔ/ with corresponding Imperfective /-a, -o/, others have reduced one vowel to zero, thus contrasting unmarked zero (most commonly in the Factative) with some other vowel, yet others have reduced both vowels to zero, leaving just a tonal contrast (Ejagham, much of Kru).

Nevertheless, the families or languages which have the contrast of /-i/ Factative versus /-a/ Imperfective, that is, parts or all of Mande, Bantu, Dogon, Atlantic, Ubangi, are typologically disparate and geographically distant, so it is implausible they have innovated the pattern separately. The best hypothesis on the basis of the current data is that in early or Proto-Niger-Congo the FV component of the verb nucleus expressed aspect, specifically a binary contrast between Factative (-**i**) and Imperfective (-**a**). More data and insights could modify this proposal.

One of the more controversial parts of this hypothesis concerns the status of the Factative. Mainstream crosslinguistic formulations usually contrast Perfective and Imperfective. Factative stretches across Niger-Congo from west to east. Is Factative an original Niger-Congo category, or did it spread across West and Central Africa, replacing Perfective? If so, was it an internal Niger-Congo development or was it transferred from another African phylum? If so, which one, and what is the distribution of Factative in Africa outside Niger-Congo? There is also the issue of marking. The proposal above is that Factative and Imperfective are commonly associated with /-i/ and /-a/, respectively. But how to reconcile that with the fact that Factative is commonly the unmarked member of the pair in contemporary languages?

1.2   Tense

1.2.1 Aspect and tense

Since most Niger-Congo languages – and many other languages worldwide - have only aspect, how do they indicate time reference? They can imply it via aspect. Factative, with dynamic verbs, and Perfective represent complete situations. Since most complete situations are in the past, the unmarked temporal value for Factative and Perfective is thus usually the past. Since imperfectives represent incomplete situations, they most often refer to the present or future. Within the general categories, more precision is given, just as it is for tenses, by using adverbials.

The unmarked values for the major categories can be modified by the context or by explicit use of adverbials. Factatives and Perfectives can refer to imminent (future) situations because many recently completed situations have immediate future implications. Affirmative imperatives are normally Factative/Perfective ('Eat!') but can be made Imperfective ('Keep on eating, Be eating when…'), while the opposite is true for negative imperatives. Imperfectives are essentially timeless so appear in situations where the English translation apparently refers to various times but that is in fact an artifact of the translation. In Yoruba, both Factative and Imperfective can be used in past, present, and future situations.

1.2.2 Aspect systems and "future tense(s)".

This section deals not with families with general tense systems (see next section) but with languages which are systemically aspectual but described as having one or more future "tenses". That is, they seem to have a single tense contrast between future and non-future, a feature that

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[14] Or would they be better viewed as stem vowels?

cuts across genetic boundaries in West Africa (also in Afro-Asiatic and Nilo-Saharan). They are of interest because crosslinguistically a binary tense contrast usually involves past and non-past, not future and non-future. Of the twenty-one languages examined, five[15] have regular tense contrasts. Thirteen of the remaining sixteen are aspect languages but with one or more "futures":

(4)   **Families with aspect systems and one or more "futures"**

Family	Details
Bambara (Mande)	Binary contrast, "near" (**bɛ́na**) vs "remote" (**ná**). Preverbal AUXs. **ná** in both resembles 'come': **yé** is or resembles 'be' (FAC).
Dogon	Three strategies. How different semantically? 1. Use of the IPFV: this is not a discrete future tense 2. Reduplication of verb root (also in the Iterative) 3. Root -**zaa** + inflected form of post-verbal AUX 'have'.
Doyayo (Adamawa)	Binary contrast. Semantic function unclear. Two forms represent future situations: they are structurally identical but tonally different from the PRG (itself based on the IPFV) and FAC, respectively.
Ewe (Kwa)	Single form. Prestem particle (**l**)**a**, formerly analyzed as tense, now as mood.
Fula (N. Atlantic)	Binary contrast. Suffixed form, 'intend or expect to happen'. Probably derives from HAB with same shape, because habitual actions project into the future. Also what sources call a 'vague future'.
Godie (Kru)	Binary contrast. Preverbal AUX. **yi** FUT-POT ('may, will, must') from 'come', **kʌ** FUT-VOL ('will, want') < 'have'
Ijo	Single future (-**ŋí** (**mɪ**)), apparently tense, Now suffixal, but originally presumably a postposed AUX, of unknown origin.
Jukun (Benue-Congo)	Binary contrast, 'certain' vs 'uncertain'. Both prefixal, both similar to IPFV marker in shape, which itself derives from 'locative 'be''.
Kabiye (Gur)	Three strategies. All preverbal aux/particles: **ka** Future < ?: **wízi** Near Future < ?: **kɔ́ŋ** FUTURE < 'come'.
Kisi (S. Atlantic)	Single preverbal AUX **co**, said to be suppletive form of 'be' (?)
Obolo (Cross River)	Three prefixal 'futures': weak future (initial : **â**- < 'like, love': Strong future prefix -**ba**-, second strong future prefix -**ba-kí**-.
Otoro (Kordofanian)	Single prefix -**a**-, with IPFV and SBJ finals. Also a 'dependent future in -**la**-. Other Kord. varieties do it differently (e.g. Moro AUX 'go')
Yoruba (Volta-Niger)	Single preverbal AUX (**y**)**ó** or **á** similar in shape to 'come' elsewhere

Two languages are described as having three, five languages as having two, and five languages as having one future "tense". A future tense is not necessarily the same as a strategy for representing future situations – some languages such as Dogon (and others in the total

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[15] Actually four, because in this respect Makaa and Narrow Bantu behave similarly.

sample) can use presents or imperfectives or auxiliaries to refer to future events, but they are not included here because they are not discrete forms.

Are these really future "tenses"? Future situations contain at least two parameters absent from past reference. They contain an element of uncertainty, distant situations being less certain than proximate ones. And they contain modal components such as wish, hope, possibilities, obligations, and so forth. Nearly all future situations have a temporal and a modal component, so the question is which is predominant, which forms are best described as essentially temporal with modal possibilities, and which as modal with future implications? There are some criteria to characterise future tenses. One would be how to ask and answer questions about future situations[16]. Another would be, if a language has two forms, one of which can only be used with today and tomorrow, the other only with more distant situations, then those would be well described as two future tenses, near and remote. Fleisch (2000) describes the Bantu languages Lucazi as having three future tenses, a simple, a definite, and a remote but all three are shown occurring with the same adverbial "tomorrow", so clearly the temporal component is only one factor here. This would not happen in past reference, so either these are not really tenses, or else future tenses have to be defined differently from pasts, which refer to discrete or chronologically ordered time periods.

Of the thirteen languages in (4), only two (Bambara, Kabiye) have futures described in chronological terms, but even here supporting data and criteria are sparse. Of the other eleven, some are described in modal terms (intent, expectation, certain, uncertain, weak versus strong, potential, volitional), while for others no basis is offered, even for one or two to the point of admitting that the difference between them is unclear. This is a gray area, the descriptions being characterized by sparse data and unclear criteria. Traditionally, many West African languages were described in terms of tense, including future(s). More recent analyses have moved towards recognizing the modal component. Thus Ewe, traditionally analysed as having a future tense, has recently had this reanalyzed as a potential (mood) by an author who is both linguist and native speaker (Ameka 1991, 2005 a, b). It seems likely that at least some of the other sample languages might be so reanalyzed, but until we have reliable up-to-date analyses of the other languages, we have to suspend judgement on the status of future "tenses" in these and other West African languages. Until we do, we cannot make judgements about whether West Africa bucks the crosslinguistic trend by having a binary future versus non-future tense contrast.

1.2.3 Tense systems

Most readers' view of tense in Niger-Congo will probably be coloured by familiarity with Bantu languages, all of which have tense contrasts, as far as we know. Languages in most non-Bantu Niger-Congo families do not have tense contrasts. As the preceding section indicated, early Niger-Congo had only aspectual and no tense contrasts. Tenses emerged only later, often apparently recently[17], and in some branches are still emerging. (5) summarises languages with tense systems. As (4) suggests, there are plenty of Niger-Congo languages which might be interpreted as having future tenses but they are not included in (5) as having real tense systems.

(5)   **Niger-Congo families with tense contrasts (question mark indicates doubt)**

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[16] E.g. How would one say: When she (write) the letter? She (write) it tomorrow.
[17] "Recent": Proto-Niger-Congo is likely at least ten millennia old (Blench 2006, Ehret p.c). Proposals for the emergence of tense in Bantu are in Nurse (2008).

Family	Details
Grassfields Bantu (61 varieties)	Some GB languages (e.g. Aghem) have two pasts and futures, some three, some even four or five (e.g. Bamileke), depending on the interpretation of P0, The morphology involved in past and futures morphemes also varies from group to group, even language to language.
Narrow Bantu (500 varieties incl. Makaa)	The number of past and future contrasts varies from one to five (Nurse 2008:89). Over 70% have two or three pasts and one or two futures.
? Kru (39 varieties)	Kru as a whole seems to be moving towards instituting tense (Marchese 1986). Some western varieties have two pasts (and futures).
? Ijo (10 varieties)	It is possible to interpret Williamson's (1965, 1991) data as showing a past and a future tense, as she does, or to interpret at least the "past" in terms of aspect.
? Cross River (67 varieties)	Faraclas' (1984) interprets Obolo as aspect-prominent but suggests that eastern Cross River varieties may have a past tense.
Senufic (15 varieties)	Supyire has two past tenses and two future markers.
Zande	Zande has two past contrasts and at least one future. Boyd (p.c.), supported by the data in Monino (1995) and elsewhere, suggests Zande may be atypical for Ubangi, other varieties being aspect-prominent.

Although some of the target languages are analyzed by their authors as having tense systems, only Grassfields Bantu, Narrow Bantu, Senufic, and possibly Zande can be clearly interpreted as having these distinctions, and, as we have seen above, it is particularly past tense distinctions, or the combination of past and future tenses that count, as futures, although fairly widespread in West Africa, are of unclear status.

Grassfields languages show considerable internal variation in the number of tenses and in the morphology associated with them. Aghem (a western Ring variety) has a binary past and a binary future distinction: P_2 **mɔ**, P_1 **mɔ́** , F_1 **sɪ**, F_2 **lɔ́**. Mundani (a Mom variety), has three pasts and futures (Parker 1991), and Bamileke varieties are often described as having four or five of each (Hyman 1980, Anderson 1983, Satre 2002). In the languages with a binary contrast, the nearer member of the pair refers to hodiernal situations, the farther member to situations beyond today. In the languages with four contrasts the various degrees of reference are to the daily cycle (today, one day hence, three or more days hence, remote). However, those five described as having five might be an exaggeration by one, because the nearest past is a zero form, which refers to past situations with dynamic verbs but to current state with stative verbs. That combination of shape and reference suggests that it is rather a Factative or Perfect, and is thus possibly an aspect rather than a tense (**?**). Be that as it may, both the number of tenses (two, three, four) and the morphemes involved differ in Grassfields. For instance, with the possible exception of **lɔ́**, none of the four morphemes cited above for Aghem occurs in any of the Bamileke past tenses examined, and there is even variation inside Bamileke. On the other hand, the **mɔ** associated with past reference in Aghem does occur in some Bantu (A10) languages spoken not far away. In some Grassfields languages but not in others a pre-stem morpheme -*a*- is associated with past (and/or future) reference. Other than that, the morphemes involved in tense reference derive from auxiliaries, adverbs, or unanalyzable particles. This and the cognitive and

morphological variation in Grassfields suggest that tense contrasts are a relatively recent innovation in Grassfields, echoed by Parker (1991:185), talking of Mundani: "One can speculate that the perfective versus imperfective distinction was, historically, the fundamental distinction in the language, and that a complex tense system is in process of being superimposed on this basic aspectual distinction….there are many signs that the tense system is still evolving."

Most (Narrow) Bantu languages differ from Grassfields in two respects. One is that their pre-stem structures are synthetic not analytic. The other is that all five hundred or so have tense distinctions and use generally rather similar morphology for tense, which is best explained by positing that tense distinctions were present at an early stage on Bantu and carried across central, eastern, and southern Africa as Bantu communities spread east and south out of Cameroon. It is agreed that this spread started some four or five millennia ago. This is not to say that the various sets of tense distinctions that exist today have existed in the same way for millennia, but that tense distinctions in general have characterized Bantu since its start.

On the other hand there are clear similarities between Narrow Bantu and Grassfields. As Grassfields, tense distinctions in Narrow Bantu languages with a binary past contrast distinguish hodiernal and beyond hodiernal, those with three distinguish hodiernal, hesternal, and three or more days hence, and those with four or more add a Remote category. As some Grassfields, many Bantu languages have pre-stem -**a**- as the central morpheme in past reference. Bamileke and a small handful of Bantu language share the distinction of having a four-way past tense contrast.

Assuming Supyire is typical of the Senufic languages, they have a synthetic structure and a binary contrast for both past and future. The near past (-**ní**-) represents hodiernal situations or situations felt to be emotionally closer and contrasts with the remote past (-**ná**-), which represents more distant situations. The two futures must be of more recent origin because transparently derivable from auxiliaries. Carlson is unable to detect any semantic difference between the two futures.

Consideration of Zande is complicated by differences between the two main data sources and claims about tense distinctions have to be made carefully. Tucker & Hackett (1959) differ from Boyd (1995) by apparently dealing with a different dialect, by having more forms (24 affirmatives versus 16 in Boyd), and by analyzing the data differently. That is, where Tucker & Hackett have a more traditional analysis involving tense and aspect, Boyd views Zande as aspect-prominent. Considering the two together – perhaps a mistake – then past tense, according to Boyd (1995:169) is "any verbal syntagma in which a low tone on a prefix is preceded and followed by a high tone". That is, the contrast between past (HLH) and non-past past is encoded tonally. Within that framework, there is a contrast between an immediate (-**ní**-) and a more general past /-**a**-/. These two morphemes are also used to mark the distinction between an immediate and a more general future. That could be interpreted in either of two ways: either /-**a**-/ 'general' and /-**ni**-/ 'immediate' are neutral as to past versus future, and it is their use with the distinctive tone pattern for past (HLH) versus non-past that determines their tense reference, or since the two sources differ in the prosodic features (tone, length) of the two, we might assume that /-**a**-/ and /-**ni**-/ differ prosodically in some way, and it is the prosodic difference(s) that determines the difference between past and future reference.

Zande is said by most who have considered it to differ from other Ubangi languages, it being the atypical one (Nurse 2008:108,270,272). For our purposes it is atypical by having tense where other Ubangi languages are aspect-prominent. The whole long southern boundary of Zande is adjacent to Bantu-speaking communities, especially those of the C40 group, all of

which have not only a binary past tense contrast but also a set of other shared characteristics (Nurse 2008:113). Several of the segmental morphological characteristics are shared with Zande (for details, see e.g. the descriptions at http://www.ucs.mun.ca/~dnurse/tabantu.html). So it may be that these ways in which Zande differs from other Ubangi languages have to do with influence from the Bantu communities of Zone C.

Past tense reference in these four families or languages can be summarized thus. Cognitively, the most common distinction is between a near and a remote past, and among languages with this distinction (all except Zande (?)), that is realized as a contrast between hodiernal and pre-hodiernal. Even for Bantu, where many languages today have three or more pasts, it is likely that the or an early distinction was binary, marked by variations in pre-stem /-a-/ (Nurse 2008: 238ff). Morphologically, the distinction between different pasts is typically carried by some combination of pre-stem morpheme and tone[18].

Historically, only Bantu and Supyire seem to have developed tense contrasts independently. Since Bantu languages all have tense and early Bantu communities spread east and south out of Cameroon between four and five millennia ago, it is more economical to posit that they carried at least the seeds of tense distinctions with them rather than positing that tense distinctions postdated the dispersal of Bantu communities and spread or developed independently in all five hundred languages. Since Senufic languages are spoken in an area (Mali, Ivory Coast) far removed from Cameroon and Bantu, and are not particularly similar to Bantu in other ways, tense distinctions are likely to have emerged separately in Senufic. In contrast, tense development in Grassfields and in Zande may have been induced by contact with Bantu. The Zande case is outlined above: tense distinctions in Zande probably have to do with contact with Zone C (especially C40) languages, either by Bantu communities having undergone language shift into Zande, or by continuous contact between adjacent Zande and Zone C communities. Likewise with Grassfields languages. Grassfields communities are all small, and small communities are less able to resist outside pressure than large: many are adjacent to Bantu and most are near to Bantu (map in Watters 2003:226): the number of tense distinctions and the morphology involved vary greatly within Grassfields, and in some cases is shared with adjacent Bantu languages. All this suggests that the emergence of tense distinctions in Grassfields is recent (see the quotation from Parker above) and probably in some cases at least the result of contact with adjacent Bantu, maybe as a calque, maybe each group having contact with a different adjacent Bantu group.

The possibility of tense distinctions developing as the result of contact in strengthened by considering Cross River languages and Ijo. The interactions between Narrow and Grassfields Bantu took place in western Cameroon. Cross River languages and Ijo are spoken a liitle to the west, in southeast Nigeria and the Delta region of Nigeria. Remarks in Faraclas (1984), the source for the tenseless Obolo variety, suggest that some eastern Obolo varieties may now have a past tense or past tense distinctions. Verbal categories in Ijo are carried either by post-verbal auxiliaries or suffixes, many of which have a CVCV shape and derive from independent auxiliaries, transparently not too long ago. Although we interpret the Ijo system as aspect-based, Williamson identifies two degrees of past and future. Whatever the shape of the older system in Ijo, it has visibly undergone a recent restructuring. The whole area in western Cameroon and southeast Nigeria seems to be a convergence area, one feature of which appears to be a slow movement towards tense formation.

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[18] Past tense distinctions in some Bantu languages are marked verb-finally or verb-initially.

The remaining family in (5) is Kru, marked with a question mark, because the status of tense distinctions in Kru varies. Godie seems to be an aspect-prominent language but Marchese (1986) the source, shows a continuum within Kru, ranging from aspect-prominent languages to eastern Kru varieties, where two past and two future tense have developed or are developing from the aspects seen elsewhere in Kru. Kru languages are not spoken too far away from Senufic, where tense is already established. Is the emergence of tense in Kru an independent phenomenon or part of an areal development involving Senufic?

1.3   A very brief note on the terminology used in my Chapters ~ Sarah Rose

Terminology is often the stumbling block in linguistics discussions (see Rose et al. 2002). My colleagues and I have spent years arguing over which terms should be used to describe certain basic aspectual distinctions; the pros and cons of such possibilities as "perfective/imperfective","completive/incompletive","performative/imperfective", "factative/ imperfective", etc., have been discussed ad nauseam. In the final analysis, while we normally agree quite readily (albeit after much discussion), we have not reached consensus on this issue. Briefly, I offer here my rationale for some of the terminology I use in my Chapters.

First of all, I generally prefer the widely understood and familiar distinction "perfective/imperfect" (rather than "performative/imperfective") for five main reasons:

1. This distinction is found throughout a wide variety of languages (Comrie 1976:25).
2. What is meant by these two terms, at least in broad strokes, is familiar and widely understood.
3. Most of the authors whose works I have consulted to compose my chapters use this familiar terminology (or, the virtually identical "completive/incompletive").
4. Because most (or many) of the languages we discuss will be unfamiliar to most readers, I think that, in most cases, introducing rare or unfamiliar terminology (such as "performative"), to describe certain categories and verb forms might be counterproductive, as it adds another layer of difficulty. I am in no way impugning the term "performative": it may indeed be just the thing for describing certain verb forms and constructions. I simply feel that— at this point in the discussion-- it introduces a level of theoretical "fine tuning" which is not entirely fruitful.
5. Additionally, it may be easily confused with the term "performative" in its better known pragmatic meaning: as an utterance which both articulates and "performs" what it says— e.g.,"I pronounce you man and wife". This latter term is more pragmatic than aspectual in nature, and refers more to the sentential meaning, than to the verb per se.

However, as mentioned above, it is true that many Niger-Congo languages show a phenomenon described first by Welmers & Welmers (1968:75, 76 later in Welmers (1973), where certain forms, despite being "unmarked" (bare verb stem), minimally marked (low tone), or marked by identical morphemes (-**Vn** in Degema, exemplified below), have meanings that cannot be straightforwardly called either "perfective" or "imperfective". The Welmers termed these forms where the same marker has two meanings depending on whether the verb is active or stative, "factative" (*factive; *factitive). This term has been adopted by many who work with Niger-Congo languages (e.g., Faraclas (1996), Faraclas et al (2007), Marchese (1986) and Kari (2002).

Why "factative"? Welmers explains: "The construction expresses the most *fact* about the verb in question, which in the case of active verbs is that the action was observed or took place, but for stative verbs is that the situation obtains at present" (1973: 346-347).

The salient point here is that certain Niger-Congo languages use the same form (either an **unmarked** or minimally marked form, or, alternately, the **same** morphological marker), with different meanings depending on whether the verb is active or stative. A good example comes from the language Degema, described by Kari (2002:179):

(6)　　a　　Factative marker with eventive (active) verb (= perfective aspect)

　　　　　　mɪ-ɗí-ín
　　　　　　1s-eat-FAC
　　　　　　'I ate.'

　　　　b　　Factative marker with stative verb (= imperfective aspect)

　　　　　　o-mí-ˈín
　　　　　　3s-be wet-FAC
　　　　　　'It became wet/It is wet.'

Kari (p.c.) prefers the label factative (rather than perfective or imperfective) for the enclitic –**Vn** because: "In Degema (Edoid) and Kalabari (Ijoid) […] the factative marks past in dynamic verbs but past/non-past in stative verbs. Given this situation, one can really not describe factative as perfective, since in stative verbs factative could have a non-past or timeless meaning/interpretation".

Following Kari's logic, it becomes a bit problematic simply to oppose factative and imperfective, as one interpretation of factative (with stative verbs) *is* imperfective. Factative taps into *both* members of the underlying aspectual structure; it can therefore not be clearly identified with either. Also implied, of course, is that there *is* an underlying aspectual system into which the factative can tap, depending on whether it is an active verb (construed in factative system as perfective = completed = past time reference) or a stative verb (construed in factative system as imperfective = not completed = present time reference or 'timeless').

As Marchese points out in her study of Kru languages, certain diagnostic features serve to identify a "factative" system (at least in the Kru languages where they are extremely common). One feature is the typical *distribution* of factatives: The same marker always has two meanings: past with active verbs, present with stative verbs. A second diagnostic is the presence of two negation markers, reflecting the typical factative grouping of "past punctiliar actions and present states" in contrast to "imperfective or habitual" (Marchese 1986:32). As a consequence of this grouping, Marchese claims, factative languages always have two negation strategies: one strategy for negating the first category, another for negating the second. (Whether one could use the corollary and claim that if a language has but a single negating strategy, or more than two, it is NOT a factative language, I cannot say without further research. Kisi, for instance, shows evidence of a factative system, but has but a single negative.)

Given the problematic position of the "future" in many of our languages (outlined above), one might ask: where does the future fit into this system? How are factatives related to futures? Are they? The Welmers use tense (not aspectual) terminology: +past vs. +present. If, for

instance, we consider the default aspect of the eventive verb to be +completive/+perfective, could the future, and not only the past, be also included (as in certain Slavic languages, where there can be two forms: a perfective past (past tense) and a perfective non-past (future tense)? If on the other hand, the stative is interpreted not as present, but as non-past (including present and future), then the future belongs here, as an imperfective (or habitual) non-past. Unfortunately, neither of these scenarios appears to describe the situation fully, as neither an unmarked eventive nor an unmarked stative may necessarily be interpreted as a future—or both may. If the "non-past" interpretation is only available in the stative verbs in a factative system, how do we render an eventive future?

So what type of system are we looking at? Here are some cross linguistic possibilities:

(7)   a TAM system opposes past vs. non-past. The future is a subset of perfective:

Aspect   Perfective   Imperfective

Tense   past   non-past   non-past

            past   **future**   present
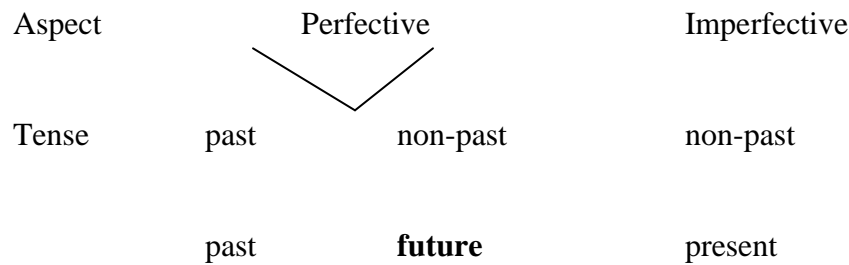
b TAM system opposes past vs. non-past. The future is a subset of imperfective:

Aspect   Perfective   Imperfective

                    past   non-past

                    past   present   **future**
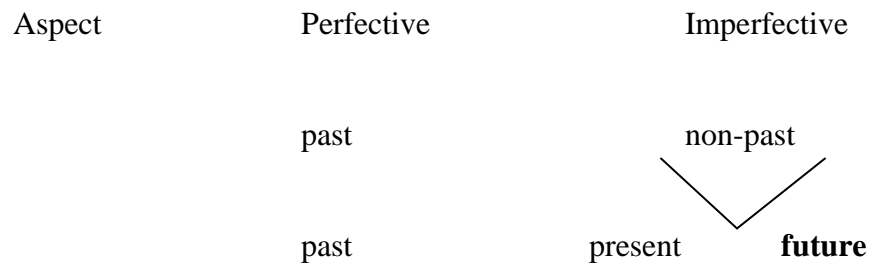
These systems, and they are common, oppose past vs. non-past, with aspect determining the interpretation of the future. Alternatively, future meaning in a past/non-past system may be achieved by the use of modals. Although system (7b) is common in the languages we have looked at, it is in no way universal. In many of our languages the future is a separate category, often the only clearly marked *tense* form. Thus, rather than opposing past vs. non-past, many of our languages could be said to manifest the typologically rather rare opposition future vs. non-future. This is a topic that requires further study.

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