Voice-conditioned perfective allomorphy and negative neutralisation in Bambara: a nanosyntactic account

Karen De Clercq (CNRS/LLF/Université Paris Cité)

1. The proposal in a nutshell. Bambara (Mande) displays perfective (henceforth PFV) allomorphy conditioned by the transitivity properties of the verb. This allomorphy is neutralised under negation (NEG) and in the imperfective (IPFV). I present an analysis of these data in Nanosyntax, which relies on the size of lexically stored items(Starke 2018). The PFV allomorph found with intransitive verbs is a portmanteau consisting (minimally) of a PFV and a VOICE feature.The neutralisation under NEG and in the IPFV follows from the fact that the relevant morphemes lexicalise only features that sit higher in the functional sequence, i.e. above Voice. **2. Data.** The table in (1) presents an overview of the PFV allomorphy in Bambara, and its neutralisation under NEG and IPFV.
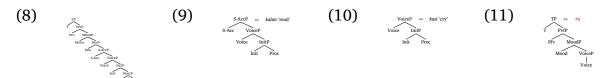
(1)

	PFV	NEG + PFV	IPFV	NEG + IPFV
INTRANS	-ra	ma	bɛ	tɛ
TRANS	ye	ma	bɛ	tɛ

Bambara has two ways to mark PFV aspect: the suffixal marker *-ra* (with allomorphs *-la* and *-na*; Hewson 2016:53) and the free morpheme *ye* (Dumestre 2003). Only accusative-assigning verbs (i.e. transitive verbs with NP complements) take *ye* (2). All the others take *-ra*: this includes unergative verbs (3a), unaccusative verbs (3b), two-place verbs with PP-complements (4), and all passivized verbs (5) (data from Koopman 1992, Dumestre 2003). The transitivity split disappears with the NEG PFV portmanteau *ma* (6), as well as in the IPFV, where the single marker *bɛ* is used (7). When NEG and IPFV are combined, there is also a single marker *tɛ* (not illustrated below).

(2) Den **ye** cè ye.
child PFV man see
'The child saw the man.'

(3) a. A kasi- **ra**.
s/he cry PFV
'S/he cried.'
b. A taa- **ra**.
s/he go PFV
'She went.'

(4) N bb- **ra** i ye.
I visit- PFV you at
'I visited you.'

(5) Ji min- **na** sisan (den fè).
water drink PFV now child by
'The water has been drunk now (by the child).'

(6) a. Fali **ma** sa.
donkey PFV.NEG die
'The donkey has not died.'
b. Birama **ma** liburu kalan.
Birama PFV.NEG book read
'Birama has not read the book.'

(7) Seku **bɛ** boli / tiga sɛnɛ
Sékou IPFV run / nut cultivate
'Sékou runs / cultivates groundnuts.'

3. Koopman (1992) explains the data in (2)-(5) as a consequence of the Case Filter, in particular the absence of Case Chains in Bambara, by which verbal traces cannot assign case. Consequently, accusative-assigning verbs need to stay in situ to assign case to the object, with *ye* popping up in INFL as a dummy element. Verbs that do not need to assign structural accusative case raise to INFL, where they attach to the suffix *-ra*. Koopman's account does not explain the neutralisation under negation and IPFV aspect, however. If

the bolded morphemes in (6) and (7) sit in INFL (as their preverbal position suggests), then it remains unexplained why verbs that do not assign accusative only move to INFL in the PFV. In this paper we account for the complete pattern in (1). **4. Analysis.** *4.1. The functional sequence.* I adopt the set of features in (8) for the clausal skeleton: Ramchand's (2008) INITIATOR, PROCESS, RESULT takes care of the realisation of *Aktionsart* (i.e. whether the arguments are patients, initiators, …). VOICE is here taken to be a feature that allows the predicate to combine with 1 argument (internal in the case of unaccusative verbs, and external in the case of unergative verbs). [S-Acc] is a selection feature, which stands for "selects Accusatively marked objects" (Caha 2009): it allows the verb to combine with another accusatively marked argument (a function traditionally clustered with VOICE). NEG sits just above [S-Acc]; next up is a default indicative [Mood] feature (Starke 2021). [Pfv] is a viewpoint aspectual feature responsible for the anteriority semantics of the perfective (Dumestre 2003). [T] is default tense.

(8) [tree: TP > PfvP > Pfv, MoodP > Mood, NegP > Neg, S-AccP > S-Acc, VoiceP > Voice, InitP > Init, ProcP > Proc, Res]

(9) S-AccP ⇔ *kalan* 'read' [tree: S-Acc, VoiceP > Voice, InitP > Init, Proc]

(10) VoiceP ⇔ *kasi* 'cry' [tree: Voice, InitP > Init, Proc]

(11) TP ⇔ *-ra* [tree: T, PfvP > Pfv, MoodP > Mood, VoiceP > Voice]

4.2. Lexical items express different portions of (8). Transitive predicates have a lexical structure that realises features up to [S-Acc] (9); thanks to the Superset Effect they will also be able to lexicalise a syntax without [S-Acc], in the case of passivisation. Intransitive predicates lack [S-Acc] (10). The intransitive PFV suffix *-ra* (11) has its lexical foot in [Voice] (11), and also lacks S-ACC. Note that *-ra* also appears with verbs in the passive (5). In contrast, the markers indicated in blue in (1) realize features that sit higher than [S-Acc] in the functional sequence, allowing them to be insensitive to the transitive-intransitive split (see (12)-(15)).

(12) TP ⇔ *ye* [tree: T, PfvP > Pfv, Mood]

(13) TP ⇔ *ma* [tree: T, PvfP > Pfv, MoodP > Mood, Neg]

(14) TP ⇔ *bɛ* [tree: T, Mood]

(15) TP ⇔ *tɛ* [tree: T, MoodP > Mood, Neg]

Table 2

	T	Pfv	Mood	Neg	S-Acc	Voice	Init	Proc
trans verb					kalan	'read'		
intrans verb						kasi	'cry'	
trans.PFV	ye							
intrans.PFV	ra							
NEG.PFV	ma							
IPFV	bɛ							
NEG.IPFV	tɛ							

4.3. Lexicalisation of syntax. Table 2 is a lexicalisation table that shows how the different lexical entries ((11)-(15)) will be mapped onto the fseq in syntax. In Nanosyntax the lexicalisation algorithm (LA) (Starke 2018) steers the interaction between the syntax and the language specific postsyntactic lexicon. We will discuss in detail how one of the steps in the LA, i.e. backtracking, will lead to the lexicalisation of *ra*, and how the other TAM-markers are a consequence of the last step in the LA, i.e. complex left branch formation.

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