

Auxiliaries, grammaticalization, and word order in Mande¹

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Abstract

Languages of the Mande family are known for their “split predicate syntax”, involving auxiliary elements that are often called “predicate markers” in literature. Word order in Mande (disregarding the auxiliaries at this point) is S-O-V, with adverbs and oblique case objects following the verb. This structure has given rise to a number of questions concerning historical syntax, and the grammaticalization of the auxiliary elements. In the light of evidence from Central Mande, the possibility of a verbal origin (vs. non-verbal sources) of these elements is discussed in the present article. I shall argue that auxiliaries for TAM categories central to the systems (imperfective, perfective) cannot convincingly be shown to be derived from verbs. Conversely, there is reasonable evidence for a non-verbal origin of the perfective markers in the Manding dialect continuum, and beyond. In the view adopted here, the emergence of auxiliaries cannot be argued to have caused word order change in the early history of Mande.

1. Introduction

The Mande languages of West Africa are generally classified as a branch of the Niger-Congo phylum. For Welmers (1971: 113) Mande represents “the earliest off-shoot from the parent Niger-Congo stock”. This view remains widely accepted today. The (external) classification of Mande is largely based on lexical criteria. Typologically speaking, the Mande languages are quite different

1. The present article is based on two earlier versions, “On S-Aux-O-V-Other word order in Mande”, paper presented to the *International Symposium: Typology of African Languages, May 21–24, 2001*, Universität zu Köln/St. Augustin; and “Aspektsysteme und Grammatikalisierung im Zental-Mande”, paper read at the *Bayreuth Colloquium (African Linguistics)*, July 16th, 2001, Universität Bayreuth.

from the rest of Niger-Congo.² It has been argued that Mande, at some early stage, underwent word order change from S-V-O to S-O-V, grammaticalization of auxiliaries playing a central role in this process (cf. Claudi 1993, 1994).

In the following, I would like to show that grammaticalization processes of emergent auxiliaries in Mande do not positively imply word order change, and they probably do not even necessarily involve verbs as sources either. The argumentation proposed in this paper is mainly based on data from Central Mande languages, with occasional evidence from other (North-)Western languages. The claim is, nevertheless, that the approach is valid for all of Mande. I shall concentrate mainly on TAM categories that are central to the systems (i.e., *perfect/perfective*, *imperfective/progressive/habitual* etc.). The term “auxiliary”, in this context, refers to invariable grammemes with some sort of sentence-constituting function (see below).

2. The Mande word order type

Following Heine (1976: 54), the Mande languages as a whole form a special sub-type of his *Type B* languages within his word order typology. This “Manding Sub-Type” differs from the rest of *Type-B* languages mainly in that nominal *and* pronominal object (i.e. DO, direct object) *always* precede the main verb, and in that adjectives and numerals follow the head noun. It differs, again, from another language type with S-O-V word order in Africa (Heine’s *Type-D*, where the verb is the final constituent of the clause) in that oblique case objects and adverbs *always follow* the verb, and that auxiliaries precede the main verb.

These auxiliaries, which do “occur throughout the Mande language family” (Beirth 1995: 89) are of special interest for the study of Mande synchronic and diachronic syntax. In Bambara (< Manding Dialect Cluster)³, as in many other Mande languages (examples from KÅnÅ and Koranko are added here), verbal predications require an auxiliary for all TAM categories (tense/aspect/mode).⁴ Parallel to this, the verb word in these languages shows little to no paradigmatic variation:

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2. There are some non-Mande languages of the Niger-Congo stock that share the relevant typological features with Mande, however.
 3. To retrieve language names and labels for branches and sub-branches of Mande, see the classification given at the end of the text.
 4. There are exceptions in the languages concerned here, but these are marginal to the system: 1. Imperative sg.; 2. *perfective* affirmative in monovalent predications (i.e., encoding either an agent, a processed, or a patient as the only argument). In the latter case, there is no auxiliary, but S-O-V word order is preserved, the aspect is marked by a verbal suffix.

Bambara (Dumestre 1984: 424)⁵

- (1) **fɪné yé tásuma jíidi**
 wind PFV fire increase
 ‘The wind made the fire flare up.’
- (2) **fɪné bé tásuma jíidi**
 wind IPF fire increase
 ‘The wind makes the fire flare up.’

Kono (Welmers n.d.: 41)

- (3) **à á tɛngbè yón**
 3ps PFV basket spoil
 ‘He spoiled the basket.’

Koranko (Kastenholtz 1987b: 117)

- (4) **ù sí wò lá.bùì yí rɔ̀**
 1ps PRSP that_one CAUS.fall water Pp
 ‘I’m going to throw her into the water.’

In languages of the type illustrated above in (1)–(4), auxiliaries operate, to put it in Sasse’s (1991: 77, 81) terms, as the language-specific mechanism of sentence constitution. The following observations relating to the auxiliaries can be made:

1. The TAM system requires auxiliaries for all or most categories, including the basic categorial opposition (e.g., *perfective* : *imperfective*), either in combination with verbal suffixes, or without such elements. Auxiliary constructions are thus not reserved for certain categories, and they are not in opposition to forms or categories marked by inflectional morphology in the proper sense.
2. The auxiliaries are free grammemes, formally monolithic, i.e., they are not inflectionally marked and show no traces of such inflectional morphemes. Different TAM categories are either marked by different auxiliaries, as is the case for Bambara, or (more rarely) the same auxiliary combines with different verb forms to mark different Aspects, as is the case for Banka (“Samogo”, Mali), see examples (5)–(6) below.

5. Example (2) has been transformed according to (1) by the present author. Abbreviations: ASS Associative, ATP Affirmative Transitive Perfective, AUG Augmentative, AUX Auxiliary, auxiliaries, BEN Benefactive CAUS Causative, CM Central Mande, COP Copula, DO Direct Object, FOC Focus, FUT Future, GM Greater Manding, IPF Imperfective, NEG Negative, NP Noun Phrase, PFT Perfect, PFV Perfective, Pp Postposition, PpP Postpositional Phrase, PRSP Prospective, PROG Progressive, RF Reference-establishing morpheme, TAM Tense/Aspect/Mode.

3. In many, though not in all languages concerned, the auxiliaries are portemanteau-morphemes. They also mark, in addition to aspect or mode, polarity, i.e., for each aspect and mode, there is a pair of auxiliary grammemes, one for the affirmative, the other for the negative.
4. As stated above, the auxiliaries precede the main verb or, more precisely, follow the noun phrase of the subject. In other words, in transitive predications the auxiliaries are positioned between the subject NP and the following object NP.

Banka⁶

- (5) *Imperfective* (with a *progressive* and a *habitual* reading)
Abu-ù jòfě̀-̀nàn⁷ bā-ná
 Abu-AUX donkey-RF beat-IPF
 ‘Abu is beating the donkey.’
- (6) *Perfect/perfective*
Abu-ù jòfě̀-̀nàn bāá
 Abu-AUX donkey-RF beat/PFT
 ‘Abu has beaten the donkey.’

Sentence constituting auxiliaries with the above-listed functions and properties are typical for the vast majority of individual Western Mande languages, though definitely not for all of them. In a number of languages auxiliaries only combine with certain aspects and modes, and with other TAM categories they do not. They might even be marginal in the sense that central TAM categories do not require auxiliaries. In such cases, e.g., in Sooso, we find verbal suffixes that function as aspect markers for a number of categories (i.e., *progressive*, *habitual/prospective*, *resultative/stative*), while auxiliaries are used for a others (i.e., *perfect*, *narrative*, *modal*). Suffix-marking in such a case can be shown to be the result of auxiliary deletion (see Claudi 1994: 209–212): At a certain point of the grammaticalization process, the relevant aspectual categories were marked by an auxiliary *and* a postpositional element that eventually developed into a suffix. The resulting “double-marking” allowed for the deletion of the auxiliary. The verbal suffixes in question are formally identical with functional postpositions in Sooso, which makes the proposed interpretation plausible. In

6. Banka examples are exclusively from the author’s field notes. The AUX in (5) and (6) consists of the lengthening of the final vowel of the NP of the subject, and a low tone. The vowel lengthening can be shown to be segmental in many (though not in all) cases. In glossing, the label AUX is used whenever the auxiliary element itself is not specific for TAM, as is the case in Banka.

7. Note that a tilde below a vowel indicates phonemic nasalisation.

Jɔɔ (“Ligbi”, Wela, “Numu”), to give another example, interdialectal comparative evidence is necessary to show that the *prospective* is the result of a functional split within the *imperfective*, formally marked by auxiliary deletion:

Jɔɔ “proper” (Banda, Ghana; author’s field notes)

- (7) *Prospective*
m̩ ʼ **bək̀**
 1ps 3ps cut/PRSP
 ‘I (shall) cut it.’
- (8) *Progressive*
ɲ **wé** ʼ **bègì-rá**
 1ps AUX 3ps cut-PROG
 ‘I am cutting it.’
- (9) *Perfective*
m̩ ʼ **bègì-ré**
 1ps 3ps cut-PFV
 ‘I (have) cut it.’

Wela (Namasa, Ghana; author’s field notes)

- (10) *Prospective*
m̩ ʼ **bək̀**
 1ps 3ps cut/IPF
 ‘I (shall) cut it.’
- (11) *Progressive*
ɲ **ɲó** ʼ **bək̀**
 1ps AUX 3ps cut/IPF
 ‘I am cutting it.’
- (12) *Perfective*
m̩ ʼ **bègì-ré**
 1ps 3ps cut-PFV
 ‘I (have) cut it.’

Both varieties of Jɔɔ use the same auxiliary,⁸ but Banda-Jɔɔ has rebuilt the *progressive*, on the basis of the verbal root and a new, clitic postposition. Auxiliary deletion being a rather common process in Western Mande, languages with predominantly suffixed aspect morphemes and a more restricted set of auxiliaries do not contradict the assumption that the “Mande word order type” is rigid S-AUX-O-V-“Other” (cf. Gensler 1994: 2–3 for the terminology).

8. Banda-Jɔɔ has the forms **wé** and **wó** of the auxiliary in free variation, Wela has **wó**, which becomes **ɲó** after nasals.

The Mande case has been of special interest for the discussion of Niger-Congo diachronic word order typology. Focussing on the relative positions of O(bject) (i.e., DO) and V(erb), it is argued that the sequence original to Niger-Congo was either O-V or V-O. In the former case, Mande would represent an unchanged state (if we disregard S and AUX, as well as “Other”), in the latter case, Mande, as an emerging sub-family, would presumably have undergone word order change. This line of argumentation, i.e., that Niger-Congo was originally of the S-V-O type and that Mande underwent word order change to S-O-V, is followed, among others, by Heine (1976, 1980).

3. Auxiliaries and grammaticalization

It has been argued furthermore, that this word order change was or is operated *through grammaticalization* of erstwhile verbs to auxiliaries (e.g., Claudi 1993: 118–122, 1994). The main and most far-reaching assumption made in this context is that the source for Mande auxiliaries was predominantly *transitive* Verbs that preceded their direct object. By means of nominal periphrases these bleached verbs were followed by an object NP consisting of a nominalized (semantic) verb preceded, in turn, by its object encoded as a genitive. The verbal noun in such a structure would have been reinterpreted as a verb when the auxiliary construction in question was grammaticalized further (Claudi 1993: 121).

While well aware of the fact that, from a general typological point of view, there may be good arguments to explain the emergence of the “Mande type” (as I prefer to call it here) from an older Niger-Congo S-V-O syntax,⁹ I would like to argue that such processes resulting in word order change can hardly be induced on the basis of synchronic evidence (and this is the only evidence we have) from within Mande. For one thing, auxiliary elements for a given category or for related categories are rather heterogeneous in form across the Mande languages: They are presumably the results of a number of independent processes with different chronological depths, common to a varying number of individual modern languages, respectively. In other words: grammaticalization of any given auxiliary in one or more Mande languages would not explain word

9. Although this is, of course, not unanimously accepted. Givón (1979) and Williamson (1986), among others, argue for an original S-O-V word order in Niger-Congo (but not of the “Mande Type” with the adverb and oblique case object – “Other” in the terminology adopted here – following the verb). Gensler, again, claims that “S-AUX-O-V-Other word order itself [i.e. the word order found predominantly in contemporary Mande languages, R.K.] shows every likelihood of having been a part of Niger-Congo...” (Gensler 1994: 18); and S-AUX-O-V-Other, following him, is neither S-O-V nor S-V-O (Gensler 1994: 2).

order change in Mande, but (if at all), in the language or languages concerned. This is not necessarily helpful, as

[...] one must assume that this shift from SVOX to SOVX took place very early in the history of the Mande languages, since the order OV suffers no exception in the syntax of the present-day Mande languages. (Creissels 1997a: 8).¹⁰

Furthermore, in light of comparative evidence, I shall discuss some sources and the relevant grammaticalization processes proposed for certain auxiliaries representing categories like *progressive/imperfective* and *perfective* in Central Mande languages (or Western Mande as a wider frame of reference).¹¹ As claimed initially, I shall argue that neither word order change, nor verbs as sources are necessarily involved.

3.1. *Progressive/imperfective *bɛ́ and related forms*

Auxiliaries with a functional scope that includes *progressive* are quite consistently grammaticalized from copulas in nominal (existential/localizational) predications. Different elements covering these two functions (see [2] above for **bɛ́** as an auxiliary in a verbal clause) are widespread in Western Mande. **bɛ́** and other similar forms occur throughout Greater Manding (henceforth referred to as GM) or even Central Mande.¹² Following Claudi (1993: 119–121; 1994: 204), a locative copula like **bɛ́** in examples (13), (14) below¹³ should even be interpreted synchronically as a *transitive* verb ‘to be.at’, taking a locational direct object.

10. Heine (1976: 61) is equally of the opinion that word order change “must have taken place prior to the splitting up of the hypothetical ancestor language of the Mande branch [...]”

11. For Eastern Mande, Bearth (1995) has shown that at least some particular auxiliaries (in Dan and in Tura) are not derived from verbs, and that their grammaticalization does not imply word order change.

12. Sooso does not have it, and it is hard to decide at the present state of research whether Jɔgɔ **wɛ́** ~ **wɔ́** (~ **ɲɔ́** after nasals) is formally comparable, or not. Note also that the occurrence of the form **bɛ́** is not exclusive in GM; **yɛ́** (see below) and even **ka** (no tone given) with the relevant functions are found in certain dialects of Manding.

13. Other, closely related languages (like Vai; also, with some morphophonological variation, Kɔnɔ, Koranko) and other Manding dialects also have **bɛ́** or **bɛ́** with the same functional range.

They would thus have to be interpreted as displaying S-V-O word order.¹⁴ There are several arguments against such a view.¹⁵ Most important in this context are the following observations: (a) In all Mande languages, the direct object (i.e. the argument encoding – in a vast majority of cases – a patient or, more generally speaking, an undergoer) *exclusively precedes* the verb. The DO is not otherwise marked for case. (b) Other arguments and satellites *follow* the verb as oblique case objects. These are postpositionally marked for case.¹⁶

On the basis of this evidence, I cannot see why the synchronic post-verbal position of the oblique case object should be indicative of an older S-V-O word order, where O stands for (or at least includes) DOs. Moreover, locative copula clauses in Bambara (like [13] below) can be analysed in quite different ways synchronically. Alternatively (i.e., opposing the view of a verb-argument-relation), it could be argued that the postpositional phrase **só kóno** represents the predicate (locative) of the clause, demanding a sentence-constituting copula (**bé**) for predication.

Bambara (Kastenholtz 1987/88: 202 [15]; author's field notes)

- (13) **à bé só kónó**
 3ps COP house Pp_inside
 'He is inside the house.'
- (14) **mògò béé bé yàn**
 people all COP here
 'All people are here.'

14. The assumption that **bé** (and some other cases, see below) is to be interpreted as an instance of extant S-V-O word order in Mande is crucial to Claudi's argumentation. If not for this assumption, **bé** or any other auxiliary used in an argument for word order change through grammaticalization would have to be traced back to Proto-Mande, a virtually impossible task. Claudi (1993: 123, 125) additionally lists three cases that are instances, in her opinion, of full verbs *followed* by their DO in Mande languages. All three clauses, in fact, are analysed incorrectly. One example is taken from Sooso, and the relevant argumentation has been rejected by Gensler (1997: 85). The other two examples are from Vai: The verb in the first sentence (her example 147) is **ḡilà** (noted as **bira**, following an older source), and this verb has an intransitive reading, with an oblique case marked by a postposition: 'to come across, take by surprise, fall upon (e.g., sickness)' (Klingenheben n.d.). The oblique case or PpP is given as **dúyera**, misinterpreted as an object noun; but **ra** (**lá** or **á** in modern Vai) is a postposition following the noun **dú** and its co-referential definite marker **-ye**. The verb in the second sample clause is **lon** 'to enter'. This verb does not take a direct object either in Vai (nor in any other GM variety), but an oblique case, marked by the Pp **lò** or **ò**, not by a noun **?o** 'the inner', as wrongly stated by Claudi (there is no such noun in Vai).

15. The alleged transitivity status of location verbs and/or of copulas in the cases and languages relevant here is discussed in Gensler (1997: 70–73).

16. There are, of course, a few exceptions, e.g., verbs that encode a recipient as second argument in the DO position do occur throughout Mande.

- (15) **dàbali bé à yé**
 means COP 3ps Pp BEN
 ‘He has means, he can manage.’
- (16) **néne bé**
 chill COP
 ‘It is cold.’
- (17) **néne bé bì**
 chill COP today
 ‘It is cold today.’
- (18) **à bé dì?**
 3ps COP how?
 ‘How is it?’

Examples (15) (benefactive) and (16)–(18), which are existential, illustrate that location is not inherent to **bé**. Location is with the locational PpP (as **só kónó** in [13]). ‘To be.at’, implying transitivity involving a locative argument is thus not an adequate metalinguistic rendering of the function of **bé**. But even the verbal status of the copula, in a purely synchronic perspective, is not self-evident. Mande copulas and auxiliaries, including **bé**, are consistently *invariant particles*. It is at least highly problematic to consider them *a priori* (i.e., without further evidence from polysemy) as verbs; consequently, it is as problematic to interpret them as instances of (remnant) S-V-O word order in Mande. Of course, invariant copulas can be historically derived from “defective” verbs (Payne 1999: 117–119). Thus, in a grammaticalizational perspective, much depends on whether or not these copulas (further grammaticalized to auxiliaries of the *progressive/imperfective*) can nevertheless be shown to be of verbal origin. The hypothesis would then be that the copula **bé** goes back to an ancient verb in Mande: *V → COP → AUX; but to my knowledge no verbal use of ***bé** in any Central Mande language or dialect (or beyond, for that matter) is attested.

3.2. *yé* ‘to see’ as a source for COP (locative) → AUX (progressive)

Another element, **yé**, formally different but functionally equivalent to **bé**,¹⁷ occurs in GM, e.g., in Maninka. It has been claimed by Creissels (1997a: 12, 1997b: 10) that **yé** was grammaticalized as a copula from the verb **yé** ‘to see’ via an imperative construction that can be paraphrased as ‘see *Kamori* in the bush!’ in (19):

17. I.e., copula in (locative, among others) nominal predications, and auxiliary for the *progressive*.

Maninka (Friedländer 1992: 51)

- (19) **Kamori yé wàá dó**
 Kamori COP bush Pp_in
 ‘Kamori is in the bush.’
- (20) **ń yé màló dómun-na**
 1ps IPF rice eat-IPF
 ‘I am eating rice/I (usually) eat rice.’

From this copula function, **yé** would have been further grammaticalized to an auxiliary of the *imperfective* (with a *progressive* and a *habitual* reading), as in (20). Comparative data from a wider range of linguistic varieties, in my opinion, suggest an altogether different explanation: Locative **yé** represents a phonemic variant of **bé** ~ **bé**. This assumption is based on the fact that **yé** is found in complementary distribution with **bé** for the relevant functions in the following two ways:

- (a) Functional split (*progressive* vs. *habitual*). Among the Ivory Coast dialects of Manding, four have **wé** (Korokan, Sagakakan, Nigbikan) or **bé** (Jula of Kong) for the *progressive*, and **yé** for the *habitual* (Derive 1990: 222). A similar phenomenon is encountered in Vai. In this language, an auxiliary **í** (< **yé** ~ **wé**)¹⁸ functions as a *future* and a *habitual*¹⁹ marker (Welmers 1976: 84–85, 90–91), with an allomorph **mbé** when combined with the pronoun of the 1st person singular, **ń**. For the *progressive*, the auxiliary in Vai is *invariably* **fbé**, though. My argument here is that in a new grammaticalization cycle, a new copula of existence, replacing an auxiliary in the functional domain of *imperfectives*, would necessarily first assume the function of a *progressive*, and only eventually by extension the *habitual*.
- (b) Paradigmatic distribution. In Koranko and Kɔ̀ɔ̀ɔ̀ (i.e., outside of Manding proper), the locative copula and the *progressive* auxiliary have the form **bé** after nasals, and **yé** (**é** for Kɔ̀ɔ̀ɔ̀) elsewhere within the same paradigms (see examples [21]–[24]). It becomes quite clear from the data of these two languages and from the case of the Vai *future/habitual* marker (see (a) above) that the variation is indeed *phonologically* motivated (a comparable case is the auxiliary **bára** for the perfect; see Kastenholtz 1987a: 256–258 for Koranko). Consonant gradation towards glides (whose place of articulation

18. Welmers (1976: 84–85) suggests these older forms, stating that **í** still has a partially conditioned allomorph **é** in modern Vai. The corresponding grammeme actually has the form **wé** in Koelle (1854). Whether these differences are to be explained diachronically or geolinguistically cannot be determined without further research.

19. The two functions differ formally inasmuch as for the *future*, the semantic verb is additionally marked by a suffix **-a** or **-la**, whereas the verb is unmarked in the *habitual*.

is determined by the following vowel) and even further to zero is a rather widespread phenomenon in Mande for non-lexical items.

Koranko (cf. Kastenholz 1987a: 259)

- (21) **àm b́é t̀èlemfɛn t́íbi.la**
 3pp PROG lunch prepare.PROG
 ‘They are preparing lunch.’
- (22) **à ýé t̀èlemfɛn t́íbi.la**
 3ps PROG lunch prepare.PROG
 ‘She is preparing lunch.’

Kono (Welmers n.d.: 28, 18)

- (23) **ḿ búù é ń d́úmé.à**
 1ps stomach PROG 1ps hurt.PROG
 ‘My stomach hurts (me).’
- (24) **m̀.é.̀n b́é b̀èn.da**
 person.DF.pl PROG gather.PROG
 ‘The people are gathering.’

Paradigmatic or functional complementary distribution of **b́é** and **ýé** seems to be common in other, less well described dialect areas and sub-dialects of the Manding continuum (cf. Bird et al. 1982), though not necessarily following the same pattern as the one sketched above in (a) for the better documented languages and dialects of GM. Even within the Bambara sub-cluster, alternation (not necessarily complementary distribution) between **b́é** and **ýé** seems to occur for certain varieties. In the Bougouni area (Southern Mali), for example, the two forms are apparently in free variation (Bird et al. 1982: 206).²⁰ For a further discussion of the source for **ýé** (IPF) in GM, much more reliable data on Manding varieties are sorely needed.

Regardless of the doubts I have about the verb for ‘to see’ as the source of the copula/auxiliary **ýé** in Maninka and other GM varieties, two remarks seem appropriate here: (1) The relevant conceptual shift is not unattested for in Mande, e.g., Tigemaxo (Boso, Northwestern Mande) does have an auxiliary for the *progressive*, grammaticalized from a verb **xai** ‘to see’ (Blecke 1994: 132–134). But the verbs **ýé** and **xai** are not cognate forms; no shared development of wider importance for Western Mande is thus implied here. (2) In the case of Manding **ýé**, of course, no change of word order would be involved given the fact that in the alleged source concept (imperative), the noun phrase preceding the verb is that of the object.

20. But they only give one example with one of the two possible forms (**ýé**).

3.3. *yé* ‘to see’ as a source for the auxiliary of the perfect/perfective

The same verb *yé* has been proposed as a possible source for auxiliaries expressing categories like *perfect*, *perfective*, and/or *past*, i.e., the other central systematic category as opposed to *imperfective/non-past*. Bambara does indeed have a grammeme *yé* for the *perfective* (in the affirmative; cf. examples [1], [22]).²¹ It has been argued by Claudi (1994: 205) and by Blecke (1994: 54–55) that this *yé* probably originated from the homophonous Bambara verb *yé* ‘to see, find s.th.’. Such a position, in my view, is hardly defensible in the light of comparative evidence and of the distribution of the element itself within Mande.²²

yé as an auxiliary for the Affirmative Transitive Perfect/Perfective (henceforth referred to as ATP) is only found in Bambara, in some adjacent regions to the west and south, in Standard Jula of Burkina Faso, and, with some restrictions, in Mandinka.²³ Within GM, there are otherwise a number of formally different, but functionally identical free grammatical morphemes for the *perfective/perfect* (cf. examples 15–24). But throughout all these languages and dialects, the verb for ‘to see, to find’, is *jé*, *yé*, or *yé*. That would make the grammaticalization of ‘to see, find’ an innovation for *parts* of the Manding Cluster only. The other forms (*kà*, *dí*, *lá*, *ɲon*, *ní* etc.) in exactly the same type of constructions of closely related language varieties cannot possibly be derived from the same verb ‘to see’; they would have had to emerge independently from different sources. The problem of this extreme variability within

21. I have chosen the label “*perfective*” here. Whereas other Manding dialects and GM languages have a separate morpheme to mark the *perfect*, this function is covered by Bambara *yé* as well, depending on verbal semantics and context.

22. The plausibility of the conceptual shift and of the grammaticalization processes for the Bambara case is not discussed in detail here. Blecke (1994: 54–55) claims that it was the meaning ‘to find’ (rather than ‘to see’) that was the source concept for the relevant grammaticalization, because with this reading, the verb *yé* is transitive and totally terminative, two prerequisites for the grammaticalization of an auxiliary for the Perfect/Past (Blecke’s analysis) that is used with transitive main verbs only. *yé* is a verb of action with the meaning ‘to find’ (as opposed to a verb of perception ‘to see’). I cannot see, lacking further evidence (i.e., of instances of polysemy that would make the claimed semantic-conceptual development plausible, as Blecke [1994: 55] points out), what the arguments are for a conceptual shift from the relevant verbal semantics to a *past* marker. The typological evidence, illustrated by examples from Khoisan and Nilotic (Blecke 1994: 59–60) is weak. This makes *the form* of the auxiliary and the relevant verb a central argument; but a form like *yé* can result from a rather wide range of source forms through phonological attrition in Mande.

23. Not even all of the sub-dialects of Bambara have *yé* in this function, e.g., Beledugu has *yá* (as in Koranko), and some southern Bambara varieties have *ɲon*, *na*, or *ka*. Manding dialects other than Bambara proper that have *yé* are: Worodugu and Koyaga in Ivory Coast, Gangan in Western Mali, and (in co-occurrence with *ɲà/kà*) Mandinka (cf. Bird 1982, Galtier 1980: 402).

Manding (and, further, GM) cannot be solved on the basis of the assumption of *any* verb as a source for the Perfect/Perfective in these languages. I therefore prefer an alternative argumentation for the origin of these elements of equal function, as elaborated in the following.

3.4. *Postpositions as a source for auxiliaries of the perfect/perfective in GM*

Bird and Kendall (1986) were the first to propose postpositions as a source for the emergence of auxiliaries in the *perfect/perfective* for the Manding dialect cluster (and beyond). This view has two advantages over the assumption of a verbal origin for the morphemes in question: (1) It accounts for the seemingly incompatible variety in *form* of the elements marking *perfect/perfective* in closely related languages and dialects (see above); (2) it also accounts for the “split structure” found in these languages, where the relevant auxiliary, in the affirmative, occurs in clauses with a DO only, and not in intransitive ones (i.e., where only one argument is encoded in a syntactically central position);²⁴ this “behaviour” is *exclusive* to the *perfect/perfective*. Examples (25), (29), (31), (33), and (35) show the different forms of the ATP auxiliary in some Manding dialects and in Vai; (26), (30), (32), (34), and (36) exemplify corresponding aspect marking with “intransitive” predications (compare [27] and [28] for the negative *perfect/perfective* marker **má**).

Bambara (Dumestre 1985: 644; 1981: 63)²⁵

- (25) **wùlu yé gáfe mìnɛ à jín ná**
 dog PFV booklet seize 3ps tooth Pp
 ‘The dog seized the booklet with its teeth.’
- (26) **né yère bange.ra Sán**
 1ps self be_born.PFV San
 ‘I myself was born in San.’
- (27) **wùlu má gáfe mìnɛ à jín ná**
 dog PFVneg booklet seize 3ps tooth Pp
 ‘The dog did not seize the booklet with its teeth.’
- (28) **né yère má bange Sán**
 1ps self PFVneg be_born San
 ‘I myself was not born in San.’

24. In the negative there is a single free grammatical morpheme **má** or **mán** for all dialects and for both transitive and intransitive predications.

25. Negative clauses (27) and (28) were transformed by the author according to (25), (26).

Maninka (Friedländer 1992: 76, 81)

- (29) **Fode ka jée dómun**
 Fode PFV fish eat
 ‘Fode ate fish.’
- (30) **mòɔ síyaman nà.da à báda**
 person many come.PFV 3ps Pp_at.home
 ‘Many people came to her place.’

Kita-Maninka (Keita 1984: 55)

- (31) **Sékù dí m̀sí s̀àn**
 Seku PFV cow buy
 ‘Seku bought a cow.’
- (32) **m̀sù b̀ỳi.da**
 woman fall.PFV
 ‘The woman fell.’

Mandinka (Creissels et al. 1983: 106, 105)

- (33) **báabaa.lu yé kánkaraŋ.o tíŋaa**
 termite.pl PFV roof.RF destroy
 ‘Termites (have) destroyed the roof.’
- (34) **búŋ.o lò.ta**
 house.RF build.PFV
 ‘The house was/has been built.’

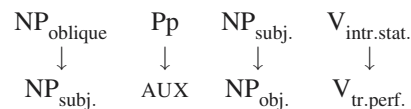
Vai (Klingenheben n.d.)²⁶

- (35) **káí d̀ɔndɔ là kpà ɓilà nì m̀ ɓòlò**
 man one PFV money take ? 1ps Pp_control
 ‘A certain man took money from me.’
- (36) **m̀àŋj́.á f̀úà.l̀à m̀ú mà p̀úlú**
 chief.RF come_early.PFV 1pp Pp early
 ‘The chief came to us very early.’

26. In modern Vai, older *r, and *l have merged in /l/, which often has a Ø-realization. Comparative evidence shows that the auxiliary **la** in (35) (< *da) and the verbal suffix **-la** in (36) (*-ta, cf. Mandinka **-ta**, Bambara **-ra**) are not of the same origin.

On the basis of data from several dialects, Bird/Kendall (1986) observed that within the Manding Cluster, affirmative transitive affective (ATP) is marked by three different grammemes:²⁷ **yé** (as, among others, in Bambara and Mandinka), **dí** (in Kita-Maninka), and **kà** or **xà** in various other dialects (Jula, Xasonka, Maninka). Their starting point is the contrasting forms Bambara **yé** and Kita-Maninka **dí**. They state that this occurrence corresponds to the fact that in Bambara, there is a *postposition yé* with a benefactive and an associative reading, and in Kita-Maninka, on the other hand, associative is expressed by the postposition **dí**. They conclude that this is hardly coincidental, and that the concept of ASSOCIATIVE has played a role in the grammaticalization of the ATP free grammatical morphemes. Correspondingly, they argue for the historical origin of these auxiliaries in subject phrase morphology.

Creissels (1997a) elaborates on this point, and he proposes a possible grammaticalization process by which the erstwhile postpositions were grammaticalized to auxiliaries: Manding associative **yé** and **dí** originally introduced a – facultative – oblique case agent to monovalent clauses of the *resultative/perfect* type, formally very much like “passive” constructions in contemporary Manding, cf. example (34). By means of topicalization, this postpositionally marked NP was then brought in clause-initial position.²⁸ Subsequent reanalysis accounts for the structure found synchronically for transitive affirmative *perfective* in Manding:



Bird/Kendall (1986) further state that their argument for a postpositional origin of the ATP auxiliary in Manding is reinforced by evidence of the Soninke case. Soninke, another Mande language belonging to a different sub-group within Western Mande, has a corresponding free grammeme **dá** for (and only for) ATP constructions, and a formally identical postposition functioning, if not as an associative, as a benefactive. The phenomenon of languages having formally identical ATP morphemes and associative/benefactive postpositions is still more widespread. I would like to add the following observations, which are in the same vein:

(1) A third grammeme for ATP that occurs within the Manding cluster is **kà/xà**, as in Maninka (see example [29]).²⁹ This element is probably also con-

27. The number of different grammemes is, of course, higher (see Footnote 23, where at least four more are listed for fringe varieties of Bambara etc.).

28. Fronting of a topicalized PpP is common in Mande languages.

29. **kà/xà** also occurs in fringe varieties of Bambara, in Jula, and in Western Manding varieties like Xasonga, Maninxanwo (cf. Galtier 1980: 403).

nected with an associative postposition, although there is no direct evidence for this in the relevant dialects themselves. A formally similar *associative* postposition, though, is found elsewhere in Western Mande, e.g., **kà** in the “Samogo” languages (Northwestern Mande),³⁰ as illustrated in (37). A postposition of comparable form and function could thus once have had a wider distribution within Central Mande, before having been replaced by a subsequent number of new ones.

Banka (my own field data)

- (37) **ī nàà ká.jì=jé.àŋ kà**
 3pp come/PFT add=thing.RF Pp_with
 ‘They have brought (= have come with) the additive.’

(2) The list of languages with these same parallels between ATP markers and postpositions can be enlarged. In Vai and Kɔ̀nɔ̀, two closely related languages which are part of GM (though generally not included in the Manding Dialect Cluster), the marker for ATP is **lá** or some variant (i.e., **á**, and **dá** after nasals; cf. examples [3] and [35]). This corresponds to a postposition of exactly the same form (i.e., with the same variants under the same conditions) in these languages. This postposition differs from the ones in the previous cases inasmuch as it has a rather large functional scope, from local/directional to more abstract functions, among others associative. Another function of **lá** (~ **á**, **dá**), which is connected to its associative meaning, is that of a genitive marker. The same is true, as Creissels (1997a) observes, for the three ATP grammemes **yé**, **dí** and **lá** within the Manding Cluster.³¹

30. There is a homophonous, more concrete postposition **kàn** ‘on, upon, on top’ (< **kàn** ‘neck and upper side of shoulder’) to be found throughout Manding. It never has, to my knowledge, an associative reading, and is thus most probably unrelated to Banka **kà**, which is exclusively associative. The picture is further blurred by the fact that Banka itself has another postposition **kà** or **gà**, which seems to be clearly inessive in most of the cases. From my data, it can be concluded that the same element also has more abstract functions, but nothing more precise can be stated at the present point. **kà/gà** in Banka also functions as a relational preverb (see **ká.jì** ‘to add’ in [34], from **jì** ‘to put’). The same preverb is found in Jeri and in Jɔ̀gɔ̀, though not the corresponding postposition. It is not clear if and how these two postpositions (associative **kà** as in Banka, and inessive/directional **kà/gà**) could possibly be connected.

31. Although the formal identity of ATP markers and genitive markers is not necessarily found in the same individual dialects. Kita-Maninka, for example, has an ATP auxiliary **dí**, but a genitive marker **yé**; Bambara has an ATP auxiliary **yé**, but a genitive marker **ká**; Maninka and Mandinka have an ATP auxiliary **kà** and **yé** respectively, but a genitive marker **lá** (see Creissels 1997a). An ATP marker **lá**, on the other hand, is not attested in Manding, but in closely related Vai and Kɔ̀nɔ̀, see above.

It might be interesting to have a closer look at “adjectival” predications in Mande, which either display another instance of an associative element (as in Bambara, **ká**), or which are constructed without an auxiliary element in the affirmative.

3.5. On a possible verbal origin of *sí* (habitual/future)

Within GM, there is an auxiliary *sí* to be found in various languages and varieties. In Koranko (where it has a negative counterpart *té*, found for negative *progressive* or *imperfective* in related languages), it has two readings, *habitual* and *future/modal* (Kastenholz 1987a: 260–263; the same element with the same function is also attested for Mògòfin, cf. Janse 1998: 31–33, 44), see examples (4) and (38)–(39):

Koranko (Kastenholz 1987a: 99, 260)

- (38) ù sí táa sú-í rò
 1ps HAB go town-RF Pp
 ‘I (usually) go to town.’
- (39) í sí m̀ansaye dí yón mà?
 2ps MOD chieftaincy/RF give who Pp
 ‘Whom would you accord chieftaincy?’

Within the Manding cluster, the occurrence of an identical or comparable element seems to be restricted to the westernmost and to the southern varieties. *sí* with largely the same functions as in Koranko and Mògòfin is found in Xasonga, with a complementary negative auxiliary *mée* (Koité-Herschel 1981: 150–152). In Maninkaxanwo (to the South and West of Xasonga), *sí* (with negative *mé*) is presumably a *habitual; future* is expressed by its combination with *na* (*sína*, negative *ména*) (Bird et al. 1982: 405–406)³² It is interesting to note that *sí/mé* and *sína/ména* are apparently in free variation with *bé/té* (*imperfective*) and *béna/téna* (“near future”), respectively, in this dialect. In Mandinka, *sí* seems to have become largely restricted to a function as a modal element, but a connection with a *habitual* reading is still apparent in certain contexts (Creissels et al. 1983: 114–116). In Maninka, again, the auxiliary *dí* (negative *té*) has about the same functions as *sí* in Koranko.³³

Besides the fact that this element displays a rather intriguing functional scope,³⁴ its possible verbal origin, as briefly proposed by Creissels (1997a:

32. For Nyoxolonkan, a very closely related dialect further to the West in Senegal, Meyer (1983: 251) notes *sé* (negative *mée*) with a functional scope roughly comparable with that stated for Koranko above.

33. The difference in form (*dí* in Maninka, *sí* in Western Manding dialects and in Koranko etc.) does not pose a problem here. There are many instances of regular correspondences: Koranko and (partially) Western dialects of Manding /s/, /l/ or /d/ in Eastern and Southern dialects, cf. Kastenholz 1996: 203–204).

34. For this, see Tröbs (in press). The distribution of the relevant element *sí/dí* with the functions described above allows for the assumption that it represents an older general *imperfective* formerly common to the languages and dialectal varieties of GM. The rise of a new *progressive*

7), is a matter of discussion. Creissels proposal is indeed tempting, as there is, in all relevant Western Manding dialects, a complementizer verb **sí** or **sé** ‘to arrive, reach, be able (to do)’. But with this explanation, we have a serious formal problem that is not easy to discard: In Maninka, the form of the verb is **sé**, but the auxiliary in question is **dí**. Conversely, in both Mògòfin and Koranko, where the auxiliary has the form **sí**, the verb ‘to arrive, reach, be able’ is **ké**. This latter is a perfect cognate regularly corresponding to the Manding form, where /k/ clearly represents a retention as opposed to innovated /s/ (see Kastenholtz 1996: 193–194, 232).

Another possible source is a complementizer verb attested in closely related Vai: **tí** with a reading ‘X becomes Y’ when intransitive, and ‘to make X into Y’ when transitive (Klingenheben n.d.).³⁵ This verb, though, is only weakly grammaticalized (if at all) in Vai, fitting the full verbal paradigm of this language; no instances of polysemy including the functioning as an invariable auxiliary with aspectual meaning are given. On the other hand, in Koranko (with Mògòfin) and in the Manding dialects that have an auxiliary **sí/dí**, no traces whatsoever of a lexical element ***sí** or ***tí** with a corresponding meaning are found. I am thus sceptical about a possible connection of **sí** and the verb attested in Vai (although I do not want to exclude the possibility at this point).

4. Discussion

I have tried to show that none of the auxiliaries in question can be traced back to a *transitive* verb. Moreover, for **yé** and the other co-occurring forms of the *perfective* in GM (***dá**, **ka/xa**, **dí** etc.), a non-verbal origin is altogether more probable. And for **bé** (including IPF **yé**, if regarded as a phonologically motivated variant of the former), a verbal origin as such is at least not evident. The case of **sí** (*habitual, future/prospective*) has been added here for two reasons: (1) It illustrates quite typically the kind of problems often encountered

with **bé** and/or **yé** led to a loss of that function with **sí**. A “complete” *imperfective* with, among others, a *progressive* reading often develops a new reading of an *aspectual future* or a *prospective*. The hypothesis is that this happened to the old **sí** *imperfective*, and after deletion of the *progressive* function, a “doughnut gram” (see Dahl 2000: 10–11 for this term) resulted, with *habitual* and *future/prospective* readings. A similar situation is found, by the way, in Sooso, where we have a *progressive* form and another *imperfective* that has a *habitual* and a *prospective* reading (see Friedländer 1974: 24–25), and, through a somewhat different process, in Jògò, see examples (7)–(12) and the relevant comments above.

35. Klingenheben’s unpublished lexical files and the equally unpublished materials of Welmers/Kandakai (1974) contain the only information about this verb. In both sources, the meaning of the verb is also (i.e., along with ‘to become, make into’) given as ‘to be in a place’, but no examples are given for that latter meaning. This seems to me to be a case very much parallel to the verb **ké** ‘to do’ with an intransitive reading, ‘to happen’, and even ‘to exist’ in Bambara (and elsewhere), where the dynamic meaning is clearly basic.

in Mande when looking for a possible verbal source for auxiliaries, namely the lack of positive evidence from polysemy. (2) It apparently represents an “older” *imperfective* within GM (see Tröbs 2001), having largely been replaced in function (“layering”), or completely (as is the case in Bambara) by **bé** (or its variants), which, consequently, must be the result of a more recent grammaticalization cycle. This corresponds to the fact that **bé** (or some other form diachronically connected) is not found outside CM.³⁶

There are, of course, GM auxiliaries that can fairly well be traced back to verbs in Mande, but always, I assume (until clear evidence for the opposite comes up), to intransitive verbs. One such example is Future **ná** in large parts of Manding, the source of which is the verb **nà** ‘to come’. The same is true for ‘to come’ and ‘to go’ in Jɔɔɔ (see Kastenholz 1997), for **tímbe** (simultaneity in dependent clauses, from the verb **tèmbi** ‘to pass’) in Koranko (Kastenholz 1987a: 264–265), and many more cases, probably including **sí** discussed above. Grammaticalization of auxiliaries on the basis of such verbs would imply the same scenario as that proposed by Carlson (1991: 202–204) for Senufo, involving verbs that take complement clauses. These follow the verb, and they are syntactically not equivalent to a direct object, but to a PpP. Such a grammaticalization scenario does *not imply* a change from S-V-O to S-O-V, it even makes the development of S-AUX-O-V on the basis of an existing S-O-V (as far as “basic” elements are concerned) structure more plausible.³⁷

In addition to this, there probably is a wide range of possible non-verbal source concepts for copulas and/or auxiliaries in Mande. Bearth (1995) has convincingly argued for a discourse-pragmatically motivated grammaticalization of a demonstrative as an auxiliary in verbal predications for Tura and Dan. I have tried to show elsewhere (Kastenholz 1997) by the example of Jɔɔɔ (“Ligbi”) that a number of elements tend to occupy the post-subject-NP in Mande languages, without any syntactic change involved other than the permutation of the element itself. This includes (along with intransitive verbs), adverbs (e.g., for anteriority), conjunctions, and, as stated above, postpositions as a source of the perfective.

Generally speaking, none of the auxiliaries considered can be convincingly traced back to early Mande language history, nor is this possible, in my opinion, for any other auxiliary element in these languages. If “young” grammaticalization processes, as those found in Tura, Dan, and Ligbi, are indicative of the kind of source concepts which have probably been grammaticalized within

36. Neither is, to my knowledge, **sí**.

37. Cf. Claudi (1993: 60), who remarks, as a general rule, that “[...] eine serialisierende SOV-Sprache [kann] auch aus sich heraus eine Stellung S TAM OV erzeugen [...]” (TAM = tense/aspect/mode element). Note that, following her, this is not what happened in Mande, though.

a given language type in the past, then we have to assume the possibility of *multiple* sources for the Mande case. There are a lot more questions to be taken into consideration in further research on the grammaticalization of Mande auxiliaries. The syntactic position after the subject NP itself seems to play a role as an attractor position³⁸, thereby motivating permutation. In connection with this latter point and with discourse pragmatics, polarity and transitivity are further issues to investigate into and to account for.³⁹ Both Bearth (1995) and Gensler (1997) claim that S-O-V (as opposed to S-V-O) word order is perhaps a not altogether too well fitting concept for languages of the Mande type. “Verb”, as Bearth (1995: 113–115) states, is a functionally complex category, and the manifestations of this category may therefore be distributed variously over the sentence. The more complex picture of a “split predicate” type of languages might be more appropriate for Mande.

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Appendix: Classification of the Mande Languages⁴⁰

- 1. **Western Mande**
- 1.1. **Northwestern**
- 1.1.1. Duun-Bɔbɔ
- 1.1.1.1. Duun-Jɔ (“Samogo”)
- 1.1.1.1.1. Duun-Seeku
- 1.1.1.1.1.1. Duun Cluster: Banka, Kpan, Duun, Dzuun
- 1.1.1.1.1.2. Seeku (Sembla)
- 1.1.1.1.2. Jɔ
- 1.1.1.2. Bɔbɔ
- 1.1.2. Soninke-Boso
- 1.1.2.1. Soninke
- 1.1.2.2. Boso: Sorogama, Tieyaxo, Tiema Cɛwɛ, Xan
- 1.2. **Central-Southwestern**
- 1.2.1. **Southwestern**
- 1.2.1.1. Kpelle
- 1.2.1.2. Mɛnde-Looma

38. See Bisang 1991 for a similar phenomenon in quite different languages.

39. In some languages, e.g. Banka (belonging to the North-western branch of Western Mande), auxiliaries that have clearly originated from a copula *by Pp periphrasis* are operative in transitive constructions only.

40. For Western Mande, the present simplified classification is based on Kastenholtz (1996: 70–71), with some changes within Northwestern Mande. Eastern Mande is added following Dwyer (1989), with some terminological changes proposed in Kastenholtz (1996: 71).

- 1.2.1.2.1. Looma
- 1.2.1.2.2. Mende-Bandi
- 1.2.1.2.2.1. Bandi
- 1.2.1.2.2.2. Mende, Loko
- 1.2.2. **Central**
- 1.2.2.1. Susu, Yalunka
- 1.2.2.2. Manding-Jɔgɔ
- 1.2.2.2.1. Jɔgɔ-Jeri
- 1.2.2.2.1.1. Jɔgɔ (“Ligbi”, Wela, “Numu”)
- 1.2.2.2.1.2. Jeri, Jali
- 1.2.2.2.2. Manding-Vai
- 1.2.2.2.2.1. Vai, Kɔnɔ
- 1.2.2.2.2.2. Manding-Koranko
- 1.2.2.2.2.2.1. Koranko, Lele, Mɔgɔfin
- 1.2.2.2.2.2.2. Manding Super-Cluster
- 1.2.2.2.2.2.2.1. Western Manding Cluster: Mandinka, Xasonga, etc.
- 1.2.2.2.2.2.2.2. Eastern Manding Cluster: Bambara, Jula, Maninka, etc.
- 2. **Eastern Mande**
- 2.1. **Volta-Niger**
- 2.1.1. Bisa
- 2.1.2. Busa (Boko, Busa, Shanga, Tyenga, etc.)
- 2.1.2. San-Sane
- 2.1.2.1. San
- 2.1.2.2. Sane
- 2.2. **Mani-Bandama**
- 2.2.1. Guro-Tura
- 2.2.1.1. Guro-Yaure
- 2.2.1.1.1. Guro
- 2.2.1.1.2. Yaure
- 2.2.1.2. Tura-Mano
- 2.2.1.2.1. Mano
- 2.2.1.2.2. Tura-Dan
- 2.2.1.2.2.1. Dan
- 2.2.1.2.2.2. Tura
- 2.2.2. Wan-Beɲ
- 2.2.2.1. Beɲ-Gban
- 2.2.2.1.1. Beɲ
- 2.2.2.1.2. Gban
- 2.2.2.2. Wan-Mwa
- 2.2.2.2.1. Wan
- 2.2.2.2.2. Mwa (Mona)

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