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Grammatical relations in Mandinka

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Abstract. In this paper, after establishing on a strictly language-internal basis the distinction between four possible syntactic positions for arguments in Mandinka predicative constructions, and analyzing alignment relationships in the coding properties of arguments, I discuss alignment in the syntactic operations and constructions likely to be relevant to the definition of grammatical relations. Most of them confirm the S = A ≠ P alignment apparent in the coding properties of arguments. However, Mandinka also has several constructions or operations with no differentiation between S, A and P, a few others in which A and P behave differently and S is aligned with P, and one with a tripartite treatment of S, A and P.

1. Introduction

Mandinka, spoken by approximately 1.5 million speakers in The Gambia, Senegal, and Guinea-Bissau, is the westernmost member of the Manding dialect cluster included in the Western branch of the Mande language family.[1] The area where Mandinka is spoken largely coincides with the pre-colonial state of Kaabu.[2] Speakers of Mandinka call themselves *Màndìŋkôolú* (singular: *Màndìŋkôo*) and designate their language as *màndìŋkàkáŋò*.[3] Rowlands (1959), Creissels (1983), and Creissels & Sambou (2013) constitute the main references on Mandinka grammar.

The question addressed in this paper is the definition of grammatical relations in Mandinka, and more precisely, possible variations in the division of arguments into subclasses in the grammatical mechanisms that do not treat arguments in a uniform way. A more detailed description of these mechanisms within the frame of a comprehensive grammar of Mandinka can be found in Creissels & Sambou (2013).[4]

The paper is organized as follows. Section 2 describes the organization of verbal predication in Mandinka and establishes the distinction between four possible syntactic positions for arguments. Section 3 is about valency classes and alignment relationships in

[1] On the classification of Mande languages, see Vydrin (2009).
[2] According to oral traditions, the Kaabu kingdom originated as a province of the Manding empire conquered in the 13th century by a general of Sundiata Keita called Tiramakhan Traore. After the decline of the Manding empire, Kaabu became an independent kingdom. Mandinka hegemony in the region lasted until 1867, when the Kaabu capital (Kansala) was taken by the armies of the Fula kingdom of Futa Jallon.
[3] *Màndìŋkôo* is the definite form of a noun *màndìŋká* resulting from the addition of the suffix *-ŋká* 'people from ...' to the toponym *Màndíŋ*, which primarily refers to the region that constituted the starting point of the Manding expansion. *Màndìŋkàkáŋò* is literally 'language of the people from *Màndíŋ*'.
[4] The transcription of the examples quoted in this article reflects the pronunciation of the consultant with whom the examples have been checked. The Pakaawu variety spoken by this consultant has tone sandhi rules that differ in many details from those described in Creissels & Sambou (2013) (based on Sédhiou Mandinka), but in all other respects there is no significant difference.

argument coding. Section 4 deals with uncoded and morphologically coded valency alternations. Section 5 analyzes constructions and operations that make no distinction between NPs occupying different syntactic positions. Section 6 is about constructions and operations in which the only contrast is between core terms and obliques. Section 7 is about the constructions and operations that confirm the alignment relationships apparent in the coding properties of arguments, and Section 8 is about those that contradict them. Section 9 deals with a construction showing a tripartite treatment of core arguments. Section 10 summarizes the conclusions.

2. Verbal predication in Mandinka

2.1. Core terms and obliques

In the approach to grammatical relations illustrated by the present volume, the distinctions established in this section can be defined as putting into play argument selectors defined by position and the shape of 'predicative markers' (see next paragraph for the definition of this term). Beginning the discussion of grammatical relations in Madinka by establishing these distinctions is a question of strategy: the characterization of NPs in Mandinka clauses as C, C1, C2, or X is always clearly apparent and easy to establish on the basis of straightforward and unambiguous formal criteria, so that the discussion of other argument selectors is greatly facilitated by taking these notions as a reference point.

In addition to a very reduced verbal inflection compensated by the systematic use of grammatical words encoding TAM-polarity distinctions (called 'predicative markers' in the Mandeist tradition), the most striking characteristics in the formal organization of verbal predication in Mandinka are the absolute rigidity of constituent order, and a particularly clear-cut distinction between one or two core terms (depending on the valency properties of the verb) and an indeterminate number of peripheral terms:

- core terms obligatorily precede the verb, whereas peripheral terms obligatorily follow it; [5]
- in assertive and interrogative independent clauses, core terms are obligatorily expressed, whereas the omission of peripheral terms (whatever their status according to the argument vs. adjunct distinction) is always syntactically possible; the omission of core terms is absolutely impossible, either with an indeterminate or anaphoric reading, whereas the omission of peripheral terms depends only on discursive conditions;
- as regards the relationship between preverbal vs. postverbal position and the argument vs. adjunct distinction, with the only exception of a limited number of movement verbs that allow the presence of a noun phrase expressing the temporal or spatial delimitation of the movement in position C2 (see Section 4.1.2), the NPs in preverbal position are

[5] Temporal and spatial expressions are the only peripheral terms that have some mobility, in the sense that they can be fronted to fulfill the function of framing topics, and in this function, they need not be resumed in postverbal position. In all other cases, movement to a topic position at the left periphery of the clause implies the presence of a resumptive element in the canonical position of the term that moves, whatever its status according to the argument vs. adjunct distinction.

always uncontroversial arguments, whereas adjuncts can only occupy a postverbal position; [6]
– there is no coding or behavioral property distinguishing the arguments that (depending on the valency properties of the verb) occupy a postverbal position from postverbal phrases representing adjuncts.

In the remainder of this paper, 'oblique' will be used as a general term for the phrases that occupy a postverbal position in the predicative construction, and the abbreviation 'X' will be used for obliques. A distinction can be made between oblique arguments and adjuncts, but apart from the fact that oblique arguments are assigned a semantic role by the predicate, and so there can be only one per role, the interest of this distinction is limited to the description of the use of adpositions. I am not aware of any other domain of Mandinka grammar in which the distinction between oblique arguments and adjuncts would play a role.

As regards the labeling of the two variants of the verbal predicative construction and of the phrases in preverbal position, in order to prevent any theoretical bias or terminological misunderstandings, I will refrain from introducing terms such as 'intransitive', 'transitive', 'subject', 'object', 'S', 'A', or 'P' at this stage of the discussion. These terms and the notions commonly associated to them will be discussed in Section 3.4, but in order to avoid any risk of circularity, the two variants or the verbal predicative constructions will be designated by the purely descriptive labels of 'verbal predicative construction with one / two core terms', and similarly, phrases in preverbal position will be labeled by means of the atheoretical and language-specific terms C, C1, and C2, defined as follows:

– C: the single core term in the verbal predicative construction with one core term;
– C1: in the verbal predicative construction with two core terms, the term that occupies the first position and is separated from the verb by the other core term;
– C2: in the verbal predicative construction with two core terms, the term that immediately precedes the verb.

Predicative markers are inserted between C and the verb in the verbal predicative construction with a single core term, and between C1 and C2 in the verbal predicative construction with two core terms.

To summarize, the two variants of the verbal predicative construction of Mandinka can be schematized as follows (where pm stands for 'predicative marker', and V for 'verb'): [7]

C pm V X*
C1 pm C2 V X*

The reasons for not conflating these two constructions into a single construction that could be schematized as C1 pm (C2) V X* will become apparent in Sections 2.2 and 2.3. For the

[6] At first sight, clauses such as *Kàmbàanôo níŋ bòróo nătà*, lit. 'The boy with running came' > 'The boy came running', seem to contradict this rule, since a manner adjunct *níŋ bòrôo* lit. 'with running' seems to be inserted between *kàmbàanôo* 'the boy' and *nătà* 'came'. However, as shown by Creissels & Sambou (2013: 295-301), *níŋ bòrôo* forms a phrase with *kàmbàanôo*, and consequently cannot be analyzed as an adjunct in the construction of the verb.

[7] In this schematization, the asterisk must be understood as the Kleene star: X* represents a string consisting of an arbitrary number of X's, including the empty string.

moment, I just give an illustration of (a) a monovalent verb with its sole argument encoded as C, (b) a bivalent verb with one of its argument encoded as C, and the other one as X, (c) a bivalent verb with its two arguments encoded as C1 and C2, respectively, (d) a trivalent verb with two of its arguments encoded as C1 and C2, and the third one as X. Note that, in Mandinka, verbal predication is organized in such a way that there is no possibility of encoding all three arguments of trivalent verbs as core terms. One of them must necessarily be encoded as an oblique whose coding and behavioral properties are identical to those of adjuncts. [8]

(1) a. *Ñíŋ díndíŋ-ó kà kùmbôo lè wáatí wóo wàatì.*
DEM child-D[9] INCPL.POS cry FOC moment any moment
C pm V X
'This child doesn't stop crying.'

b. *Fànkàntáŋ-ò-lú ká sùulá máakóyír-òo lá.*
poor-D-PL INCPL.POS need help-D POSTP[10]
C pm V X
'The poor need help.'

c. *Kàmbàan-ôo yè sàâ búsà fál-òo lá.*
boy-D CPL.POS snake.D hit stick-D POSTP
C1 pm C2 V X
'The boy hit the snake with a stick.'

d. *Kèw-ôo yè kód-òo díi mùs-ôo lá.*
man-D CPL.POS money-D give woman-D POSTP
C1 pm C2 V X
'The man gave money to the woman.'

2.2. Verbal predication with two core terms

As already mentioned above, the two core terms of the verbal predicative construction with two core terms obligatorily precede the verb. In independent assertive and interrogative clauses of this type a predicative marker encoding TAM and polarity is always present between the two core terms. With the exception of *bé/té*, used as a predicative marker in verbal constructions encoding progressive, future, and resultative, but also used in non-verbal predication as a locational copula, the predicative markers are grammatical words specialized

[8] Mandinka shares this feature with the other Mande languages, and this is one of the features that distinguish Mande languages from most language families of Subsaharan Africa, where so-called multiple-object constructions are common.

[9] The suffix *-ò* (glossed D) is sometimes called 'definite marker', but in most contexts the *ò*-form is the default form of nouns, which by itself carries no definiteness implication – see Creissels & Sambou (2013: 171-186).

[10] Postpositions marking oblique phrases (either oblique arguments or adjuncts) are glossed according to the meaning they typically express as heads of postpositional phrases in adjunct function, with three exceptions: *lá*, *má*, and *tí*, for which the generic gloss POSTP is used. The reason is that the analysis of the uses of these three postpositions as extensions of some 'central' or 'prototypical' meaning is particularly problematic – see Creissels & Sambou (2013: 262-272).

in this function. Specialized predicative markers combine with the bare form of the verb, whereas the locational copula in predicative marker function requires suffixed forms of the verb. The inventory of specialized predicative markers in verbal predication with two core terms is as follows:

– Completive[11] positive: *yè*[12]
– Completive negative: *mâŋ*[13]
– Subjunctive[14] positive: *yè*[15]
– Subjunctive negative: *kánàa*
– Potential: *sì*[16]
– Incompletive[17] positive: *kà*[18]
– Incompletive negative: *búkà*

Obliques follow the verb and are most of the time encoded as adpositional phrases. Toponyms, spatial adverbs and a few common nouns fulfill the function of ground in spatial relationships without requiring the addition of an adposition, but apart from this particular case, adpositionless obliques are only marginally possible.

As illustrated by Ex. (2), the two core terms C1 and C2 are neither flagged nor indexed on the verb. Pronouns occupy the same positions as canonical NPs, and like nouns, they have the same forms in all their possible functions. Note also that Mandinka has third person pronouns (singular *à*, plural *ì*) that express no gender or animacy distinction.

(2) a. *Kàmbàan-ôo* *yè* *bèr-ôo* *fáyí* *pàlàntéer-òo* *kâŋ.*
boy-D CPL.POS stone-D throw window-D on
C1 pm C2 V X
'The boy threw the stone at the window.'

[11] In general, the predicative markers labeled 'completive' and the suffix *-`tá* are interpreted as indicating that the verb refers to a dynamic event whose occurrence is anterior to some point in time, but Mandinka has a relatively important class of verbs with which the completive markers may have a stative reading. This class includes among others *lôŋ* 'know', *sòtó* 'get/have', and qualitative verbs such as *kàndí* 'be hot', *bétéyâa* 'be good', etc. With some of these verbs, the stative reading is the only possible reading of completive markers, whereas with some others, the completive markers are ambiguous between a stative reading and a dynamic-anterior reading.

[12] *Ń* (1SG) + *yè* (CPL) and *ŋ̀* (1PL) + *yè* (CPL) are realized *ŋá* and *ŋà* respectively, and *ŋá / ŋà* also occur as optional variants of *yè* in combination with emphatic forms of first person pronouns in subject function.

[13] In normal or rapid speech, *mâŋ* CPL.NEG immediately followed by a personal pronoun or by the demonstrative *wŏo* loses its final *ŋ*. This alternation is most of the time not indicated in written texts, and the transcription used here follows this convention. In some Mandinka varieties, *mâŋ* is only found in verbal predication with one core term, and the completive negative marker in verbal predication with two core terms is tonally *máŋ*.

[14] The subjunctive occurs in independent clauses with a jussive function.

[15] *yè* SUBJ is homonymous with *yè* CPL and interacts with 1st person pronouns in the same way.

[16] *sì* POT has the dialectal variant *sè*.

[17] The predicative markers labeled 'incompletive' are mainly used in habitual contexts.

[18] *kà* INCPL has the dialectal variants *kàrí* and *kàlí*.

b. *À* *yè* *bèr-ôo* *fáyí* *pàlàntéer-òo* *kâŋ.*
3SG CPL.POS stone-D throw window-D on
C1 pm C2 V X
'He threw the stone at the window.'

c. *Kàmbàan-ôo* *yè* *à* *fáyí* *pàlàntéer-òo* *kâŋ.*
boy-D CPL.POS 3SG throw window-D on
C1 pm C2 V X
'The boy threw it at the window.'

d. *Kàmbàan-ôo* *yè* *bèr-ôo* *fáyí* *à* *kâŋ.*
boy-D CPL.POS stone-D throw 3SG on
C1 pm C2 V X
'The boy threw the stone at it.'

As will be discussed in greater detail in Section 3, <C1, C2> is the basic coding frame for the vast majority of bivalent verbs, with ᵍA encoded as C1, and ᵍP encoded as C2. [19]

2.3. Verbal predication with a single core term

In this variant of the verbal predicative construction, illustrated by Ex. (3) below, the single core term precedes the verb. Like the two core terms in the verbal predicative construction with two core terms, it is neither flagged nor indexed on the verb. Obliques behave exactly in the same way in clauses with one or two core terms.

As will be discussed in greater detail in Section 3, <C> constitutes the only possible coding frame for most monovalent verbs, and <C, X> is the basic coding frame for a substantial minority of bivalent verbs, with ᵍA encoded as C, and ᵍP encoded as X.

In the verbal predicative construction with a single core term, the paradigm of predicative markers expresses exactly the same TAM and polarity distinctions as in the construction with two core terms, but in the completive positive (encoded by the predicative marker *yè* inserted between C1 and C2 in the construction with two core terms), no predicative marker is present between C and the verb, and the completive positive marker -*`tá* is suffixed to the verb – Ex. (3a). The other grammaticalized TAM/polarity values are encoded by the same predicative markers as in verbal predication with two core terms – Ex. (3b-c). [20]

(3) a. *Dèndìk-óo* *jăa-tá* *tìl-ôo* *lá.*
shirt-D be/become_dry-CPL.POS sun-D POSTP
C V X
'The shirt dried up in the sun.'

[19] When referring to 'agent' and 'patient' as generalized semantic roles, I use the abbreviations ᵍA and ᵍP in order to avoid confusion with A and P in the sense of arguments whose coding properties are identical to those of prototypical agents or patients.

[20] As described by Creissels & Sambou (2013) for Sédhiou Mandinka, some Mandinka varieties also have a distinction between *máŋ* (completive negative, transitive) and *mâŋ* (completive negative, intransitive), and a similar tonal distinction can also be found with the negative copula used as a predicative marker in verbal predication. This however does not apply to the variety spoken by the consultant with whom the examples quoted in this article have been checked.

b. *Kèw-ôo* *mâŋ* *kúmá* *mùs-ôo* *yé.*
man-D CPL.NEG talk woman-D BEN
C pm V X
'The man did not talk to the woman.'

c. *Díndíŋ-ó* *kà* *tòotóo* *jàmáajàmáa.*
child-D INCPL.POS cough often
C pm V X
'The child often coughs.'

The existence of two partially distinct paradigms of predicative markers constitutes the main reason for analyzing clauses with one or two core terms as instantiating two distinct predicative constructions. In the next section, I discuss implications of this decision for the analysis of aspects of Mandinka syntax related to verb valency and the expression of arguments.

2.4. Transitivity alternations, or null core terms?

In language description, the analysis of lability is conditioned not only by the alignment properties of the languages, but also by the existence of a more or less clear-cut distinction between transitive and intransitive predications.

In a language like English, the notion of A-lability is problematic in the sense that it boils down to the optionality / obligatoriness of NPs in object function, and does not imply the deletion of the corresponding participant from argument structure: a verb like *eat* can be simply described as a transitive verb accepting a null object with an unspecific reading. By contrast, the behavior of verbs like *break* cannot be described in a similar way, but only by positing a transitivity alternation by which the subject of an objectless construction is assigned a semantic role similar to that assigned to the object when an object NP is present. Symmetrically, in languages in which S is fully aligned with P, the notion of P-lability may be problematic, whereas A-lability clearly involves a transitivity alternation – see Creissels (2014).

In Mandinka, the analysis of lability must take into account that:

(a) in the verbal predicative construction with two core terms, the core terms C1 and C2 are distinguished from each other by their fixed position to the left or to the right of predicative markers, and
(b) one of the grammaticalized TAM-polarity values is expressed by two distinct markers occupying different positions, depending on the number of core terms in the predicative construction.

In Mandinka, regardless of their status as arguments or adjuncts, obliques are syntactically optional, whereas participants encoded as core terms (i.e., represented by NPs preceding the verb) are obligatorily expressed. The two crucial observations are that:

– a two-core-term construction in which C1 would be left unexpressed and C2 would be expressed should have the form *Ø pm C2 V*, with the predicative marker in clause-initial position, which is absolutely impossible in assertive or interrogative clauses; [21]
– a two-core-term construction in which C2 would be left unexpressed and C1 only would be expressed should have the form *C1 pm Ø V*, and the completive positive marker should occur as *yé* immediately preceding the verb, which is absolutely impossible too.

It would consequently not be correct to recognize null core terms (with either an anaphoric or non-specific reading) in the analysis of Mandinka clauses. This must however be emphasized, since at first sight, phenomena that must be analyzed as involving a change in the predicative construction might give the impression of being analyzable in terms of null terms in a construction that as such would remain constant.

For example, the comparison between (4a) and (4b) might suggest that (4b) includes a null C2.

(4) a. *Mòô-lú* *màŋ* *báa* *tèyí.*
person.D-PL CPL.NEG river.D cross
C1 pm C2 V
'The people did not cross the river.'

b. *Mòô-lú* *máŋ* *tèyí.*
person.D-PL CPL.NEG cross
'The people did not cross.'

However, this analysis is contradicted by the fact that the positive clause corresponding to (4b) unambiguously includes the variant of the completive positive marker (the suffix *-ˋtá*) characteristic of the verbal predicative construction with a single core term – Ex. (4d-e).

(4) c. *Mòô-lú* *yè* *báa* *tèyí.*
person.D-PL CPL.POS river cross
C1 pm C2 V
'The people crossed the river.'

d. * *Mòô-lú* *yé* *tèyí.*
person.D-PL CPL.POS cross
intended: 'The people crossed.' [22]

e. *Mòô-lú* *tèyí-tà.*
person.D-PL cross-CPL.POS
C V
'The people crossed.'

[21] The only predicative marker that can be found in clause-initial position is *kánàa* (subjunctive negative) in imperative sentences, in which the second person is not overtly expressed.
[22] The sequence *Mòôlú yé tèyí* is acceptable, but only with the meaning 'The people should cross', i.e., if *yè* is interpreted as the subjunctive marker, which is homonymous with completive *yè* but can occur in constructions with a single core term too, contrary to completive *yè*, which only occurs in constructions with two core terms.

Moreover, (4f) shows that the missing argument in the construction illustrated by Ex. (4b) & (4e) can be encoded as an oblique.

(4) f. *Mòô-lú* *tèyí-tà* *bâa* *lá.*
person.D-PL cross-CPL.POS river.D POSTP
C V X
'The people crossed the river.'

There is therefore converging evidence that *tèyí* 'cross' must not be analyzed as a verb with a two-core-term construction in which the term C2 could be left unexpressed, but rather as a labile verb whose second argument can be encoded as either the C2 in a two-core-term construction, or an oblique argument in a one-core-term construction. (4b) does not contradict the principle according to which null core terms are not allowed in Mandinka, since the missing argument in (4b) is not the C2 of a two-core-term construction, but the oblique argument in a one-core-term construction of the same verb: comparison with (4c-f) shows that (4b) must be analyzed as *Mòôlú máŋ tèyí (bâa lá)* rather than **Mòôlú màŋ (báa) tèyí*. More generally, the two constructions of *tèyí* 'cross' can be schematized as indicated in (4g).

(4)g. *x tèyí* (*y lá*) one-core-term construction with an optional oblique argument
~ x y tèyí two-core-term construction in which both arguments are encoded as core terms, and are consequently obligatorily expressed

At least in the particular case of *tèyí*, which is particularly frequent in my corpus of narrative texts, there is no obvious difference in the frequency of the two constructions.[23] A list of verbs allowing two constructions with the same formal and semantic relationship as the two constructions of *tèyí* is given in Section 4.1.2.

Similarly, in Ex. (5b), the absence of anything that could be analyzed as passive marking might suggest the recognition of a two-core-term construction with a null C1. However, if *kúlúŋò* were the C2 in a two-core-term construction with a null C1, the TAM-polarity marker (here, the negative copula used as an incompletive negative auxiliary in combination with a non-finite form of the verb) would precede *kúlúŋò*, as in the ungrammatical sequence (5c).

(5) a. *Kèw-ôo* *té* *kúlúŋ-ò* *dádàa-lá.*
man-D INCPL.NEG boat-D repair-INF
C1 pm C2 V
'The man will not repair the boat.'

b. *Kúlúŋ-ò* *té* *dádàa-lá.*
boat-D INCPL.NEG repair-INF
'The boat will not be repaired.'

[23] It is however interesting to observe that *tèyí* 'cross' has an obvious etymological relationship to *tèyí* 'cut', which contrary to *tèyí* 'cross' cannot be used in a one-core-term construction with the agent in C role.

c. **Ø* *té* *kúlúŋ-ò* *dádàa-lá.*
INCPL.NEG boat-D repair-INF

Consequently, (5b) is not a two-core-term construction with a null C1, but a one-core-term construction whose single core term C (*kúlúŋò*) has the same semantic role as the C2 of the two-core-term construction (5a).[24]

2.5. The middle variant of the verbal predicative construction with two core terms

The predicative construction dealt with in this section (henceforth *middle construction*) must be analyzed as a variant of the two-core-term construction, since in this construction, the marker of the completive positive is invariably *yè*, never -*`tá*.

Formally, the particularity of the middle construction is that position C2 is occupied by a reflexive pronoun with two possible forms only (*ŋ́* and *í*), the choice between these two forms being determined by the NP occupying the C1 position: *ŋ́* if position C1 is occupied by a 1st person pronoun (singular or plural), *í* with all other kinds of NPs in C1 position.

Apart from a relatively productive 'simulative' use in combination with causative verbs (for example, *fàndí*, causative form of *fǎa* 'die', can be used in the middle construction with the meaning 'pretend to be dead'), the middle construction is possible with a limited number of verbs only, either as the basic construction of the verbs in question, or in alternation with one of the two constructions described in the previous sections.

My data include 72 non-causative verbs compatible with the middle construction. 33 of them are *reflexiva tantum* that have no other possible construction, and for which the choice of the middle construction is therefore just a lexical requirement.

9 of the verbs compatible with the middle construction are also compatible with the one-core-term construction, but cannot be used in the two-core-term construction with a canonical NP in C2 role: *bálûu* 'live' – Ex. (6), *bòrí* 'run', *kàlí* 'swear', etc.

(6) a. *Bàràmàtôo* *té* *bálùu-lá.*
injured_person.D INCPL.NEG live-INF
C pm V
'The injured person will not survive.'

b. *Mòo* *jámáa* *kà* *í* *bálúu* *sèn-ôo* *lè* *lá* *jǎŋ.*
person many INCPL.POS REFL live farming-D FOC POSTP here
C1 pm C2 V X X
'Many people live on farming here.'

[24] The passive lability illustrated by this example is widespread among Mande languages, but relatively rare cross-linguistically, at least in its fully grammaticalized form (that is, without the restrictions and/or aspecto-modal nuances that characterize the use of zero-coded quasi-passives such as English *This book sells well*). This issue is discussed by Cobbinah and Lüpke (2009), who provide a survey of languages with constructions analyzable as zero-coded passives that depart more or less from canonical passives in other respects too, and analyze Manding languages as illustrating the extreme case of zero-coded passives that in all other respects would qualify as canonical passives. See also Lüpke (2007) on the zero-coded passives of Jalonke, and Creissels & Diagne (2013) on the zero-coded passives of Soninke.

30 of the verbs compatible with the middle construction can also have a canonical two-core-term construction. In many cases, the semantic relationship between the two constructions is more or less strongly lexicalized, but in 17 cases the middle construction is at least etymologically related to the reflexivization of the two-core-term construction, and in 13 cases there is at least an etymological link with the antipassivization of the two-core-term construction.[25]

Ex. (7) illustrates the reflexive use of the middle construction, whereas in Ex. (8), the middle construction encodes a valency operation of the antipassive type.

(7) a. *Mùs-ôo* *yè* *díndíŋ-ò* *kǔu.*
woman-D CPL.POS child-D wash
C1 pm C2 V
'The woman washed the child.'

b. *Mùs-ôo* *yè* *í* *kǔu.*
woman-D CPL.POS REFL wash
C1 pm C2 V
'The woman washed (herself).'

(8) a. *Kèw-ôo* *yè* *kàmbàan-ôo* *jê.*
man-D CPL.POS boy-D see
C1 pm C2 V
'The man saw the boy.'

b. *Fìŋkìntéw-òo-lú* *búkà* *í* *jè.*
blind-D-PL INCPL.NEG REFL see
C1 pm C2 V
'The blind do not see.'

3. Valency classes and alignment in the coding properties or arguments

Mandinka has no alternation in the coding of arguments triggered by features such as TAM, polarity, the grammatical nature, semantic nature or discourse status of NPs, etc. The coding of arguments depends exclusively on the valency properties of verbal lexemes.

3.1. Monovalent verbs

In Mandinka, the single argument of the vast majority monovalent verbs is encoded as C in the one-core-term predicative construction. For example:

x fájì = *x* boils
x jǎa = *x* gets dry
x jàŋkárì = *x* falls ill
x kóŋkò = *x* gets hungry

[25] On the productive way of expressing reflexivization in Mandinka, see Section 7.2. On the productive way of expressing antipassivization, see Section 4.2.1.

x sǎa = *x* dies
x tòotôo = *x* coughs

The middle construction is however the only possible coding frame, or at least the default coding frame, for about 25 verbs which typically refer to bodily actions, for example:

x Refl *dǒŋ* = *x* dances
x Refl *jâŋ* = *x* lies on his/her back
x Refl *níijîi* = *x* breathes
x Refl *súmúnâa* = *x* urinates [26]

Tú 'remain' is the only exception to the rule according to which the single argument of monovalent verbs can only be encoded as either C in the one-core-term construction, or C1 in the middle construction – see Section 4.1.6.

3.2. Bivalent verbs

In Mandinka, the vast majority of semantically bivalent verbs are found in the two-core-term predicative construction, with ᵍA encoded as C1, and ᵍP as C2 – Ex. (9).

(9) *Kárálílàa* *yè* *kùrùt-ôo* *kárà.*
tailor.D CPL.POS trousers-D sew
C1 pm C2 V
'The tailor sewed the trousers.'

Here are some other examples of verbs for which a one-term-construction with a passive meaning (as illustrated by Ex. (5) above) is the only possible alternative to the two-core-term construction with ᵍA encoded as C1:

x y báyíndì = *x* follows *y*
x y dádâa = *x* makes *y*, *x* repairs *y*
x y dómò = *x* eats *y*
x y félè = *x* looks at *y*
x y kànú = *x* likes *y*, *x* loves *y*
x y kǔu = *x* washes *y*
x y lâa = *x* sings *y* – *y* a song
x y lîi = *x* shaves *y*
x y máakóyì = *x* helps *y*
x y mòyí = *x* hears *y*
x y mùtá = *x* catches *y*
x y nìkîŋ = *x* learns *y*
x y ñínì ~ *ñínîŋ* = *x* searches for *y*
x y sîi = *x* grinds *y*
x y sǐŋ = *x* digs *y*, *x* digs for *y*

[26] In the particular case of *súmúnâa*, a two-core-term construction is also possible, but only with reference to the marked situation in which micturition results in the emission of something else than urine (blood for example).

x y sùmbú = *x* smells *y*, *x* kisses *y*
x y tábì = *x* cooks *y*
x y wótò = *x* peels *y*

There is however a substantial minority of semantically bivalent verbs that use the one-core-term predicative construction as their coding frame, with gA encoded as C, and gP as an oblique – Ex. (10).

(10) *Díndíŋ-ó* *làfí-tá* *fòolèesúw-òo* *lá.*
child-D want-CPL.POS bicycle-D POSTP
C V X
'The child wants a bicycle.'

Other examples include:

x jìkí y lá = *x* trusts *y*
x káawà y má = *x* admires *y*
x ñìná y lá = *x* forgets *y*
x sílà y lá = *x* fears *y*

There is also a very small number of bivalent verbs whose coding frame is the middle construction, with gA encoded as C1, and gP as an oblique:

x Refl *lákúrà y lá* = *x* finishes *y*

The major valency class of bivalent verbs includes all *core transitive verbs*, in the sense of bivalent verbs expressing meanings compatible with a maximum degree of semantic transitivity, i.e., verbs that can be used to encode two-participant events involving an agent consciously and willingly controlling an activity oriented towards another participant, and a patient undergoing a change of state or position triggered by the activity of the agent. In other words, there is no difficulty in analyzing the two-core-term predicative construction as the *basic transitive construction*, or *construction biactancielle majeure* in Lazard's (1998) terminology.

As regards the proportion of bivalent verbs selecting the basic transitive construction as their coding frame, the situation in Mandinka is roughly comparable to the European average. Of the 130 bivalent predicates that constitute the questionnaire used by Sergey Say to compare the valency classes of bivalent verbs in the languages of Europe (Say 2014), 73 can be lexicalized as verbs selecting the basic transitive construction in Mandinka, whereas according to my own counts the corresponding numbers are 58 for Russian (one of the European languages with a relatively low proportion of verbs selecting the basic transitive construction), 77 for French, and 83 for English (one of the European languages with a relatively high proportion of verbs selecting the basic transitive construction).[27] In this

[27] Note however that these numbers are useful to compare languages, but cannot be viewed as reflecting the real importance of the classes of transitive verbs in the lexicon of the individual languages, for at least two reasons. First, core transitive verbs are underrepresented in the questionnaire, mainly designed to investigate the variety of possible valency classes for bivalent verbs that do not select the basic transitive construction. Second, the

respect, not only Mandinka, but more generally Mande languages contrast with most Subsaharan language families, in which, as a rule, apart from movement verbs assigning the roles of figure and ground to their arguments, the proportion of bivalent verbs that do not select the basic transitive construction as their coding frame is relatively low.

As regards possible relationships between the assignment of specific semantic roles and the coding frames selected by bivalent verbs, the only clear generalizations are that <C1, C2> is the basic coding frame for all core transitive verbs, but is strongly dispreferred by spontaneous movement verbs assigning the roles or figure and ground to their arguments (*wálîŋ* 'move towards' being to the best of my knowledge the only Mandinka verb with such an argument structure among those that select <C1, C2> as their basic coding frame). No clear generalization emerges for other semantic classes of bivalent verbs: <C1, C2> is always the default option, but it is always possible to find exceptions.

3.3. Trivalent verbs

To the best of my knowledge, in Mandinka, *bálâŋ* 'refuse' is the only trivalent verb with a coding frame in which one of the participants is encoded as C in the one-core-term construction, and the other two as obliques:

x bálâŋ y má z lá = *x* refuses to give *z* to *y*

All the other trivalent verbs have a two-core-term construction as their coding frame, with the most agent-like participant encoded as C1, one of the other two encoded as C2, and the third one encoded as an oblique. For example:

x y dîi z lá = *x* gives *y* to *z*
x y nĭi z lá = *x* offers *y* to *z*
x y ñìnìŋkâa z lá = *x* asks *y* about *z*
x y só z lá = *x* gives *z* to *y*
x y yìtá ~ yìtàndí z lá = *x* shows *y* to *z*
x y fó z yé = *x* tells *y* to *z*

In the construction of trivalent verbs, Mandinka shows no clear preference for either indirective or secundative alignment. In particular, Mandinka has two verbs 'give' that differ in their construction. With *dîi* (which by itself implies nothing more than transfer), the gift (alias *theme*) is encoded as C2 and the recipient as an oblique ('indirective' alignment), whereas with *só* (which implies that the recipient becomes the possessor of the gift) C2 represents the recipient ('secundative' alignment), and the gift is encoded as an oblique.

(11) a.

Kèw-ôo	*yè*	*kód-òo*	*dîi*	*mùs-ôo*	*lá*.
man-D	CPL.POS	money-D	give	woman-D	POSTP
C1	pm	C2	V	X	

'The man gave money to the woman.'

---

predicates listed in the questionnaire that cannot be lexicalized as transitive verbs are not necessarily lexicalized as bivalent verbs belonging to other valency classes: in many cases, they have no simplex verb as their equivalent, and can only be expressed periphrastically.

b. *Kèw-ôo* *yè* *mùs-ôo* *só* *kód-òo* *lá*.
man-D CPL.POS woman-D give money-D POSTP
C1 pm C2 V X
'The man gave money to the woman.'

Moreover, several trivalent verbs have two possible coding frames that differ in the selection of the participants encoded as C2 and X – see Section 4.1.4.

3.4. Alignment in argument coding

It follows from the explanations given in the previous sections that the coding properties that characterize C, C1, and C2, as defined above on a purely language-specific basis, would be analyzed as characterizing the Mandinka instantiation of S, A, and P/O, as these notions are defined in the various versions of mainstream alignment typology.[28] Possible groupings according to behavioral properties will be discussed in the remainder of this paper. As regards the coding properties of C, C1, and C2, Mandinka has neuter alignment in flagging (since C, C1, and C2 are equally unflagged), indexation (since there is no argument indexation at all), and position with respect to the verb (since C, C1, and C2 equally precede the verb). The only coding property for which non-neutral alignment can be recognized is the position with respect to predicative markers. In this respect, C and C1 share the position before predicative markers, contrasting with C2, which follows predicative markers. Consequently, the coding properties of arguments in Mandinka point to the type of alignment commonly designated as accusative (S = A ≠ P), although the contrast between C1/C (or A/S) and C2 (or P) is relatively weakly marked, since it concerns none of the coding properties commonly mentioned in the definition of alignment types (flagging, indexation, and position with respect to the verb), and relies entirely on a coding property (the position with respect to predicative markers) whose validity is limited to the languages that have the very special type of organization of verbal predication found in Mande languages.

An obvious shortcoming of the usual way to define alignment relationships between arguments is that it says nothing about verbs that are neither core transitive verbs nor monovalent verbs. A possible way to solve this problem is to formulate the definitions of alignment relationships between arguments with reference to the generalized semantic roles ᵍA and ᵍP, rather than with reference to A and P as defined in (one of the variants of) mainstream alignment typology – see Bickel (2011), Witzlack-Makarevich (2011). Another possibility I am trying to explore – see Creissels (2015) and Creissels (to appear) – is to retain A and P as defined in the Comrian framework, but to abandon S as a third primitive in the definition of alignment relationships. In this approach to alignment typology, the properties of the arguments of core transitive verbs are compared to those of the arguments of all the other verbs, regardless of the number of their arguments. In this perspective, Mandinka can be characterized as a strict *obligatory A-coding language*, i.e., a language in which the only available coding frames must include a term with coding properties identical to those of the agent in prototypical transitive clauses.

[28] See Haspelmath (2011) for a comparison of the way S, A, and P/O are defined and manipulated in the Comrian tradition on the one hand, and in the Dixonian tradition on the other hand.

The question to be discussed in the remainder of this paper is to what extent the treatment of core arguments in other aspects of Mandinka grammar follows the C= C1 ≠ C2 (or S = A ≠ P) alignment apparent in their coding properties, or reveals other possible groupings or subdivisions.

4. Valency alternations

4. 1. Uncoded valency alternations

4.1.1. C2 ~ C alternation

Two semantic subtypes of the C2 ~ C alternation can be distinguished.

In the *noncausal / causal alternation*, a verb that can be used in the two-core-term construction also has a one-core-term construction which does not imply the involvement of a participant with the semantic role assigned to C1 in the two-core-term construction; the referent of C in the one-core-term construction is presented as undergoing the same process as C2 in the two-core-term construction, but without any hint at a possible external cause – Ex. (12). I am aware of no evidence supporting the choice of either the one-core-term pattern of the two-core-term-pattern as the basic one.

(12) a. *Kèw-ôo* *yè* *mùr-óo* *jòlóŋ* *bàŋk-ôo* *tó.*
man-D CPL.POS knife-D drop ground-D LOC
C1 pm C2 V X
'The man dropped the knife on the ground.'

b. *Máŋk-óo* *jòlôn-tá* *bàŋk-ôo* *tó.*
mango-D fall-CPL.POS ground-D LOC
C V X
'The mango fell on the ground.'

The relationship between two constructions related in this way is of the type expressed in other languages either by a transitivizing derivation of the causative type, or by a de-transitivizing derivation of the anticausative type. In Mandinka, the productivity of the uncoded noncausal / causal alternation is limited not only by the possibility to conceive events as more or less spontaneous processes affecting a single participant, but also by the possible use of derived causative verbs making explicit the involvement of an agent.

Dŭŋ 'enter' illustrates the case of a verb lending itself to the noncausal / causal alternation – Ex. (13a-b), which however also has a morphologically marked causative form – Ex. (13c).

(13) a. *Wùl-óo* *dŭn-tà* *búŋ-ò* *kónò.*
dog-D enter-CPL.POS room-D inside
C V X
'The dog went into the room.'

b. *Mùs-ôo* *yè* *mìráŋ-ó* *dŭŋ* *díndíŋ-ò* *búlù.*
woman-D CPL.POS bowl-D enter child-D PSPH
C1 pm C2 V X
'The woman put the bowl into the hands of the child.'

c. *Mùs-ôo* *yè* *kèw-óo* *dù-ndí* *búŋ-ò* *kónò.*
woman-D CPL.POS man-D enter-CAUS house-D inside
C1 pm C2 V X
'The woman let the man into the room.'

The competition between noncausal / causal alternation and causative derivation is one of the trickiest aspects of Manding grammar. Their respective productivity shows important dialectal variations (and Mandinka is one of the Manding varieties in which causative derivation is particularly productive), and fluctuations can be observed even within the limits of a given dialect. Lexicalization also plays an important role. An unquestionable regularity is however that, as already illustrated by Ex. (12), the use of causative forms tends to correlate with less direct causation, a relatively high degree of agentivity of the causer, and the ability of the causee to control the process and/or to oppose the manipulation exerted by the causer.

The second semantic subtype of the C2 ~ C alternation is the *active / passive alternation*. It has already been presented in Section 2.4, in the discussion of constructions in which the patient is the only expressed argument of a bivalent verb whose argument structure includes an agent and a patient. In this alternation, a verb that can be used in the two-core-term construction also has a one-core-term construction interpreted as implying the same participants, one of them being however left unexpressed: C in the one-core-term construction encodes the same participant as C2 in the two-core-term construction, whereas the participant encoded as C1 in the two-core-term construction is left unexpressed – Ex. (14) & (15).

(14) a. *Kèw-ôo* *yè* *wòt-ôo* *dádâa.*
man-D CPL.POS car-D repair
C1 pm C2 V
'The man has repaired the car.'

b. *Wòt-ôo* *dádàa-tá.*
car-D repair-CPL.POS
C V
'The car has been repaired.'

(15) a. *Kàmbàan-ôo* *yè* *nás-óo* *fèerèetòo-bóŋ* *kòlóŋ-ò* *kónò.*
boy-D CPL.POS magic_water-D cleverly-pour well-D inside
C1 pm C2 V X
'The boy cleverly poured the magic water into the well.'

b. *Nás-óo* *fèerèetòo-bôn-tá* *kòlóŋ-ò* *kónò.*
magic_water-D cleverly-pour-CPL.POS well-D inside
C V X
'The magic water was cleverly poured into the well.'

The existence of this active / passive alternation giving rise to morphologically unmarked passive constructions constitutes the most original aspect of Manding argument structure. In spite of the absence of anything that could be analyzed as passive morphology, the construction illustrated by sentences (14b) & (15b) is passive in the sense that the patient is the single core term of a one-core-term construction (with just one NP preceding the verb, and the completive positive marked by the verbal suffix *-`tá* instead of the predicative marker *yè*), in which the agent is consequently syntactically *demoted*, without however being *deleted* from argument structure. A decisive proof of the passive nature of the one-core-term constructions involved in this alternation is their ability to include an agent-oriented verb modifier, such as *fèerèetòo-* 'cleverly' in Ex. (15b).

The passive reading of such clauses is not bound to any particular condition on aspect, mood, or referentiality. Mandinka speakers use intransitive constructions with a passive reading in the same conditions and with the same semantic implications as agentless passive clauses in languages that have canonical passive constructions.

There is however an important difference between Mandinka and other Manding varieties in the syntactic properties of the passive construction. In other Manding varieties, passive clauses may include an oblique representing the participant encoded as C1 in the two-core-term construction, as in Ex. (16) from Bambara.

(16) a. *Wùlû* *má* *sògô* *dún.* [Bambara]
dog.D CPL.NEG meat.D eat
C1 pm C2 V
'The dog did not eat the meat.'

b. *Sògô* *má* *dún* *(wùlú* *fɛ̂).* [Bambara]
meat.D CPL.NEG eat dog.D beside
C pm V X
'The meat has not been eaten (by the dog).'

This possibility does not exist in Mandinka. Interestingly, the passive clauses of Mandinka may include obliques marked by the same postpositions as those used to encode the agent in the other Manding varieties (i.e., postpositions whose basic meaning is reference to the personal sphere of an individual), but in the passive clauses of Mandinka, such obliques are interpreted as referring to a person who has some link with the event but does not play an active role in it, or to an involuntary agent, as in Ex. (17).

(17) *Kód-òo* *dómò-tá* *ŋ́* *fèe.*
money-D spend-CPL.POS 1SG beside
C V X
'The money was spent without my knowing.' or 'I spent the money, but I did not do it on purpose.'

The active / passive alternation is not bound to conditions on the specific semantic roles assigned to C1 and C2 by individual verbs (such as stimulus, experiencer, goal, etc.), and the only limitation to its productivity seems to be ambiguity avoidance with verbs also involved in the noncausal / causal alternation (but even with such verbs, one-core-term constructions with a passive reading are common in contexts suggesting a passive reading).

4.1.2. C2 ~ X alternation

In the C2 ~ X alternation, the verb occurs in a one-core-term construction including an oblique which can equally be encoded as C2 in a two-core-term construction, whereas the same participant is encoded as C in the one-core-term construction, and C1 in the two-core-term construction. As discussed above on the example of *tèyí* 'cross', in accordance with the general properties of core terms and obliques in Mandinka, the participant that can be encoded either as C2 or as X is obligatorily expressed in the two-core-term construction, but can be omitted from the one-core-term construction.

Two semantic subtypes of the C2 ~ X alternation can be distinguished

The first subtype concerns verbs expressing a manner of moving (walk, run, fly, swim, etc.). The two-core-term construction of such verbs encodes the same one-participant event as the one-core-term construction; the single participant is encoded as C1, and C2 encodes the temporal or spatial delimitation of the event – Ex. (18) & (19).

(18) a. *Kèw-ôo* *táamà-tá* *(wúl-òo* *kónò)* *(tìlí* *lúulù).*
man-D walk-CPL.POS bush-D inside day five
C V X X
'The man walked (in the bush) (during five days).'

b. *Kèw-ôo* *yè* *wúl-òo* *bêe* *táamà.*
man-D CPL.POS bush-D all walk
C1 pm C2 V
'The man walked through the whole bush.'

c. *Kèw-ôo* *yè* *tìlí* *lúulù* *táamà,*
man-D CPL.POS day five wander
C1 pm C2 V
'The man spent five days walking

à *máŋ* *fùtá* *sàatéw-òo* *tó.*
3SG CPL.NEG arrive village-D LOC
without arriving at the village.'

(19) a. *Mùsù-kéebàa* *yáayì-tá* *(báakè)* *(sàatéw-òo* *kónò).*
woman-old.D wander-CPL.POS a_lot village-D inside
C V X X
'The old woman wandered (a lot) (in the village).'

b. *Mùsù-kéebàa-lú níŋ dèenàan-ôo yè sàatéw-òo bêe yáayì.*
woman-old.D-PL with baby-D CPL.POS village-D all wander
C1 pm C2 V
'The old women wandered round the whole village with the baby.'

In the second semantic subtype of the C2 ~ X alternation, C2 in the two-core-term construction represents a second participant treated as an oblique in the one-core-term construction. This alternation has already been illustrated with *tèyí* 'cross' – Ex. (4) above. *Sèlé* 'climb' and *wúlûu* 'give birth' provide additional examples.

(20) a. *Sùl-óo sèlé-tà yír-òo sántò.*
monkey-D climb-CPL.POS tree-D on_top
C V X
'The monkey climbed up the tree.'

b. *Í búkà yír-óo sèlé à jàmb-ôo lá.*
2SG INCPL.NEG tree-D climb 3SG leave-D POSTP
C1 pm C2 V X
'One does not climb a tree by the leaves.'

(21) a. *Mùs-ôo wúlùu-tá (súŋkút-òo lá).*
woman-D give_birth-CPL.POS girl-D POSTP
C V X
'The woman gave birth (to a girl).'

b. *Mùs-ôo yè súŋkút-òo lè wúlûu.*
woman-D CPL.POS girl-D FOC give_birth
C1 pm C2 V
'The woman gave birth to a girl.'

This alternation is not very productive. According to Creissels & Sambou (2013: 370-371), it is possible with the twenty-six verbs listed below, and the only obvious semantic generalization about this set of verbs is that none of them can be used to encode prototypical transitive events in which a patient undergoes a change of state triggered by a manipulation exerted by an agent.

bálâŋ 'refuse'
búsà 'fall violently on'
dàŋkènèyâa 'trust
díkì 'press upon, insist'
dìyàamú 'speak, discuss'
dúwâa 'pray for'
fólôo 'begin'
jélè 'laugh at'
kàcâa 'discuss'
kàñêe 'win' (borrowed from French)

kèlé	‘fight’
kùmbôo	‘cry, lament about’
lábâŋ	‘be the last to do something’
lôŋ	‘know’
màabêe	‘attend’
màrá	‘govern’
mùñá	‘endure’
sárì	‘shout’
sèlé	‘climb’
sùusûu	‘suck’
tàkí	‘bump’
tèyí	‘cross’
túlûŋ	‘play’
wòosîi	‘complain’
wúlûu	‘give birth’
wúrì	‘shout’

4.1.3. The active / introversive alternation

In the *active / introversive alternation*, the verb has a one-core-term construction and a two-core-term construction, and the role assigned to C1 in the two-core-term construction is assigned to C in the one-core term construction, in the same way as with verbs involved in the C2 ~ oblique alternation. The difference is that, in the active / introversive alternation, the participant encoded as C2 in the two-core-term construction cannot be expressed in the one-core-term construction. According to Creissels & Sambou (2013: 371-372) this alternation is found with the following four verbs:

dásà	‘lack’ – Ex. (22)
kàrâŋ	‘learn’ – Ex. (23)
kìilìyâa	‘be jealous’
mùtá	‘act on, be effective’[29]

(22) a. *Jíy-òo* *dásà-tá* *lè.*
water-D lack-CPL.POS FOC
C V
‘Water is lacking.’

b. *Kód-òo* *yè* *ŋ́* *dásà.*
money-D CPL.POS 1SG lack
C1 pm C2 V
‘I lack money.’ (lit. ‘Money lacks me.’)

[29] *Mùtá* ‘act on’ is etymologically related to *mùtá* ‘grasp’, which however contrary to *mùtá* ‘act on’ cannot be used in the one-core-term construction with the agent in C role.

(23) a. *Ñĭŋ kèw-ôo yè Fúlá-káŋ-ó kàrâŋ.*
DEM man-D CPL.POS Fula-language-D learn
C1 pm C2 V
'This man learned the Fula language.'

b. *Ñĭŋ kèw-óo kàrân-tá báakè.*
DEM man-D learn-CPL.POS very
C V X
'This man is a very learned person.'

4.1.4. The C2 ~ X permutation

This valency alternation involves trivalent verbs that have two possible two-core-term constructions with the same argument encoded as C1, but two possible choices for the argument encoded as C2, the remaining argument being encoded as an oblique – Ex. (24) & (25).

(24) a. *Kèw-ôo yè lèetár-òo sáfé à díŋ-ò yé.*
man-D CPL.POS letter-D write 3SG son-D BEN
C1 pm C2 V X
'The man wrote a letter to his son.'

b. *Kèw-ôo yè à díŋ-ò sáfé lèetár-òo lá.*
man-D CPL.POS 3SG son-D write letter-D POSTP
C1 pm C2 V X
'The man wrote a letter to his son (lit. wrote his son with a letter).'

(25) a. *Kèw-ôo yè tìy-ôo sóolí bòot-ôo kónò.*
man-D CPL.POS peanuts-D stuff bag-D inside
C1 pm C2 V X
'The man stuffed the peanuts into the bag.'

b. *Kèw-ôo yè bòot-ôo sóolí tìy-ôo lá.*
man-D CPL.POS bag-D stuff peanuts-D POSTP
C1 pm C2 V X
'The man stuffed the bag with peanuts.'

4.1.5. Alternations involving the middle construction

As already mentioned in Section 2.5, the middle construction is possible with a limited number of verbs only, and its use is strongly lexicalized, but it is nevertheless possible to recognize three different types of alternations involving the middle construction. With verbs that are not compatible with the two-core-term construction, for example *bálûu* 'live' (Ex. (6) in Section 2.5), the middle construction may be more or less synonymous with a one-core-term construction of the same verb. With verbs compatible with the canonical two-core-term

construction and the middle construction, the middle construction expresses either reflexive-like or antipassive-like meanings – Ex. (26) and (27).

(26) a. *Mùs-ôo* *yè* *kód-óo* *nùkûŋ.*
woman-D CPL.POS money-D hide
C1 pm C2 V
'The woman hid the money.'

b. *Díndíŋ-ò* *yè* *í* *nùkûŋ* *yír-òo* *kôomá.*
child-D CPL.POS REFL hide tree-D behind
C pm C2 V X
'The child hid (himself) behind the tree.'

(27) a. *Kèw-ôo* *yè* *jíy-óo* *mǐŋ.*
man-D CPL.POS water-D drink
C1 pm C2 V
'The man drank water.'

b. *Kèw-ôo* *yè* *í* *mǐŋ* *jíy-òo* *lá.*
man-D CPL.POS REFL drink water-D POSTP
C1 pm C2 V X
same meaning as (a)

4.1.6. The C ~ X alternation (or presentational alternation)

The only Mandika verb lending itself to the *C ~ X alternation* is *tú* 'remain / leave'. *Tú* has a one-core-term construction and a two-core-term one related via the noncausal / causal alternation – Ex. (28a-b), but in addition to that, it is found in an impersonal construction which has no equivalent with any other Mandinka verb, in which the 3rd person pronoun in C position is a mere place-holder, and the only participant is encoded as an oblique optionally flagged by the postposition *lá* – Ex. (28c).

(28) a. *Mùs-ôo* *yè* *díndíŋ-ò-lú* *tù* *súw-òo* *kónò.*
woman-D CPL.POS child-D-PL leave house-D inside
C1 pm C2 V X
'The woman left the children in the house.'

b. *Mùsù-kéebáa* *fùlá* *tú-tá* *sàatéw-òo* *tó.*
woman-old two remain-CPL.POS village-D LOC
C V X
'Two old women remained in the village.'

c. *À* *tú-tá* *jĕe* *mùsù-kéebáa* *fùlá* *(là).*
3SG remain-CPL.POS there woman-old two POSTP
C V X X
'There remained two old women.'

Functionally, the impersonal construction of *tú* is a presentational construction with the same information structure implications as English 'there remains *x*' or French 'il reste *x*', but formally, the unique participant is unambiguously in oblique position, whereas in the languages of Europe in which functionally similar constructions have been described, inverted subjects move to a position at least superficially similar to that of objects, and among African languages, the same movement of inverted subjects to a position superficially similar to that of objects can be observed in the functionally similar constructions found in Bantu and Atlantic languages. This may be related to the fact that the languages of Europe as well as the Bantu and Atlantic languages that have this kind of impersonal construction are SVX/AVPX languages, whereas Mandinka is an SVX/APVX language.

The existence of a presentational focus construction limited to a single verb meaning 'remain' seems to be an areal phenomenon, since the same exceptional behavior of a verb meaning 'remain' has been observed in several Atlantic languages, i.e., in languages that have no close genetic relationship with Mandinka but are spoken in the same area, for example Wolof (Sylvie Nouguier-Voisin, pers.com.), Jóola Banjal (Bassène & Creissels 2011), and Balant Ganja (Creissels & Biaye 2016).

4.2. Valency operations involving a change in the verb stem

4.2.1. Antipassive derivation and the antipassive periphrasis

Mandinka has a suffix *-ri* (with the allomorph *-diri* in combination with stems ending with a nasal) used exclusively with verbs that select the two-core-term predicative construction as their basic coding frame,[30] and this suffix *-ri* occurs exclusively in constructions in which the argument encoded as C2 in the basic construction of the verb in question is left unexpressed, cannot be identified with the referent of a noun phrase included in the same construction, and is interpreted as non-specific. In these constructions, the deletion of *-ri* leads either to ungrammaticality, or to radical changes in the interpretation of predicate-argument relationships. This distribution makes it possible to analyze *-ri* as a valency operator of the antipassive type. However, in other respects, *-ri* has properties quite unusual for an antipassive marker, since with just one exception (*dómò* 'eat' – see below), *ri*-forms cannot be used as the verbal predicate of finite clauses.[31]

Creissels & Sambou (2013: 63-65) provide a detailed description of the use of the suffix *-ri* and discuss its analysis as an antipassive marker. Here I limit myself to a brief description of its use in relation to clauses headed by verbs that have the two-core-term predicative construction as their basic coding frame and for which the only alternative is a one-core-term construction with a passive or anticausative reading. With such verbs, the suffix *-ri* makes it

[30] I am aware of only two verbs meeting this definition that cannot take the antipassive suffix: *sènè* 'cultivate' and *fìirí* 'sell'. These two verbs behave in all other respects like the other verbs having the two-core-term construction as their basic coding frame, but occur in their non-derived form in constructions that normally require the use of the antipassive suffix. I am aware of no possible explanation of this oddity in the behavior of these two verbs.

[31] Note however that Mandinka is not the only language with a valency operation morphologically expressed in non-finite verb forms only. For example, Russian has a morphological distinction between active and passive participles (Wade 2010: 365-385), but no morphological distinction between active and passive finite verb forms.

possible to construct clauses in which the argument encoded as C2 in the two-core-term construction is left unexpressed.

In the case of *dómò* 'eat', the *ri*-form can be used verbally in a one-core-term predicative construction in which C is assigned the same semantic role as C1 in the two-core-term construction of *dómò*. Remember that, in the one-core-term construction, *dómò* in its non-derived form can only have a passive interpretation – Ex. (29c).

(29) a. *Díndíŋ-ò* *yè* *m̀búur-òo* *dómò.*
child-D CPL.POS bread-D eat
C1 pm C2 V
'The child ate the bread.'

b. *Díndíŋ-ò* *dómó-rì-tá.*
child-D eat-ANTIP-CPL.POS
C V
'The child ate.'

c. *M̀búur-òo* *dómò-tá.*
bread-D eat-CPL.POS
C V
'The bread was eaten.'

With all the other verbs that have similar valency properties in their non-derived form (the two-core-term construction as the basic coding frame, and a passive one-core-term construction as the only possible alternative), the *ri*-form cannot be used as the verbal head of a clause, and the demotion of the argument expressed as C2 in the basic construction requires an antipassive periphrasis in which the light verb *ké* 'do' combines with the *ri*-form used nominally in position C2 – ex. (30).

(30) a. *Mùs-ôo* *yè* *màan-óo* *tŭu.*
woman-D CPL.POS rice-D pound
C1 pm C2 V
'The woman pounded the rice.'

b. *Màan-óo* *tŭu-tà.*
rice-D pound-CPL.POS
C V
'The rice was pounded.'

b. **Mùs-óo* *tùu-rí-tà.*
woman-D pound-ANTIP-CPL.POS
C V
intended: 'The woman pounded.'

c. *Mùs-ôo* *yè* *tùu-r-ôo* *ké.*
woman-D CPL.POS pound-ANTIP-D do
C1 pm C2 V
'The woman pounded.' lit. 'The woman did the pounding.ANTIP.'

4.2.2. Causative derivation

When the input of causative derivation is a one-core-term construction, C is converted into C2 in the construction of the causative verb, and a causer is introduced in C1 position – Ex. (31).

(31) a. *Díndíŋ-ò* *lá* *dèndìk-ôo* *nôo-tá.*
child-D POSTP shirt-D get_dirty-CPL.POS
C V
'The child's shirt got dirty.'

b. *Díndíŋ-ò* *yè* *à* *lá* *dèndìk-ôo* *nó-ndì.*
child-D CPL.POS 3SG POSTP shirt-D get_dirty-CAUS
C1 pm C2 V
'The child soiled his shirt.'

When causative derivation operates on two-core-term constructions, the general rule (which allows very few exceptions) is that the C1 argument of the non-derived verb (the causee in the causative construction) is encoded in C2 position, and the C2 argument of the non-derived verb is encoded as an oblique marked by the postposition *lá* – Ex. (32).

(32) a. *Díndíŋ-ò* *yè* *tòoñâa* *fó.*
child-D CPL.POS truth.D tell
C1 pm C2 V
'The child told the truth.'

b. *Kèw-ôo* *yè* *díndíŋ-ò* *fóo-rí-ndí* *tòoñâa* *lá.*
man-D CPL.POS child-D tell-ANTIP-CAUS truth.D POSTP
C1 pm C2 V X
'The man made the child tell the truth.'

As illustrated by the examples above, Mandinka has two ways of marking causative derivation:

– The simple causative suffix *-ndi* is typically used to causativize one-core-term constructions and to express relatively direct causation; it is however also used with a few verbs for which the two-core-term construction is the basic coding frame (the only ones attested in my data are *dùní* 'carry on the head', *fútûu* 'marry', *kàrâŋ* 'learn', *lôŋ* 'know', *mĭŋ* 'drink', *nĭŋ ~ nìkîŋ* 'learn', *sáabù ~ sábábù* 'cause', and *sèné* 'cultivate').
– The complex suffix *-(di)ri-ndi* , whose first formative can be identified as the antipassive marker *-(di)ri*, is exclusively used to causativize two-core-term constructions, and can only express indirect causation.

In the case of *dómò* ‘eat’, the analysis of the causative form *dómóríndì* as derived from the antipassive form *dómórì* ‘eat (intr.)’ is particularly obvious, since this decomposition is fully consistent with the syntactic properties of *dómórì* and *dómóríndì*: *-ri* encodes the demotion of the C2 argument, making it possible for the initial C1 to move to C2 position when a causer is introduced in C1 position.

(33) a. *Díndíŋ-ò* *dómó-rì-tá.*
child-D eat-ANTIP-CPL.POS
C V
‘The child ate.

b. *Kèw-ôo* *yè* *díndíŋ-ò* *dómó-rí-ndí* *(m̀búur-òo* *lá).*
man-D CPL.POS child-D eat-ANTIP-CAUS bread.D POSTP
C1 pm C2 V X
‘The man made the child eat (bread).’

4.2.3. Postposition incorporation

In postposition incorporation, the same argument can be encoded either as an oblique in a one-core-term construction, or as C2 in the two-core-term construction of a compound verb incorporating the postposition used to mark the same argument when it is encoded as an oblique – Ex. (34).

(34) a. *Bándíy-òo-lú* *bòyí-tá* *jùl-ôo-lú* *kàŋ.*
bandit-D-PL fall-CPL.POS merchant-D-PL on
C V X
‘The bandits attacked the merchants (lit. fell on the merchants).’

b. *Bándíy-òo-lú* *yé* *jùl-ôo-lú* *bòyìŋ-kâŋ.*
bandit-D-PL CPL.POS merchant-D-PL fall-on[32]
C1 pm C2 V
‘The bandits attacked the merchants.’

Very few verbs lend themselves to this transformation. For example, postposition incorporation is possible with *nằa ... tí* ‘come with → bring’, but not with *táa ... tí* ‘go with → carry’.

4.3. Conclusion of Section 4

In this section, I have described the valency alternations of Mandinka on the basis of a characterization of the nominal terms of predicative constructions as C, C1, C2, or X:

– the noncausal / causal alternation (Section 4.1.1);

[32] The epenthetic segment *-ŋ-* has been arbitrarily assigned to the preceding morpheme.

- the active / passive alternation (Section 4.1.1);
- the C2 ~ X alternation (Section4.1.2);
- the active / introversive alternation (Section 4.1.3);
- the C2 ~ X permutation (Section 4.1.4);
- the alternation between the one-core-term construction and the middle construction (Section 4.1.5);
- the reflexive alternation between the two-core-term construction and the middle construction (Section 4.1.5);
- the antipassive alternation between the two-core-term construction and the middle construction (Section 4.1.5);
- the C ~ X alternation (or presentational alternation) (Section 4.1.6)
- the antipassivization by means of the antipassive periphrasis (Section 4.2.1);
- the causative derivation (Section 4.2.2).
- postposition incorporation (Section 4.2.3)

Two of these alternations are fully productive: the active / passive alternation, and antipassivization by means of the antipassive periphrasis. The causative derivation also has a high degree of productivity. The noncausal / causal alternation can also be characterized as relatively productive, although to a lesser degree. All the other alternations are restricted to classes of verbs with a number of members varying between 1 (the presentational alternation) and 30 or so (the C2 ~ X alternation).

The first question that arises now is whether some of these alternations could be viewed as supporting the C/C1 grouping suggested by the coding properties of arguments, or other possible groupings.

In this perspective, the only valency alternation suggesting a grouping is the causative derivation (Section 4.2.2), and the grouping it suggests is identical to that apparent in the coding properties of arguments, since in the causative derivation, C and C1 are equally demoted and converted into the C2 term of the causative construction.

The second question that must be raised here is whether some of the alternations presented in this section could be viewed as diagnostics for the recognition of additional distinctions among arguments. For example, one could imagine recognizing two subtypes of C1 on the basis of the fact that the conversion of C1 into the single core argument of a one-core-term construction is possible with some verbs only. However, such phenomena are arguably best treated in terms of verbal lability or valency classes of verbs. Crucially, none of the grammatical mechanisms that will be considered in the remainder of this article confirms the relevance of the subdivisions that could be established on such a basis.

5. Constructions and operations for which the distinction between C, C1, C2, and X is not relevant

5.1. Topicalization

The only distinction that appears in topicalization is between temporal and spatial expressions, which can fulfill the function of framing topic without being resumed in postverbal position, and other semantic types of NPs, whose topicalization implies the

presence of a resumptive element in the clause-internal position corresponding to their semantic role.

5.2. Focalization

Whatever their position in the clause, NPs (and adverbs) can be focalized in situ by means of the addition of the enclitic focus particle *lè* – Ex. (35).

(35) a. *Mùs-ôo* *lè* *táa-tá* *fàr-ôo* *tó.*
woman-D FOC go-CPL.POS rice_field-D LOC
C V X
'THE WOMAN went to the rice field.'

b. *Mùs-ôo* *lè* *yè* *fǎaŋ-ó* *tǎa.*
woman-D FOC CPL.POS cutlass-D take
C1 pm C2 V
'THE WOMAN took the cutlass.'

c. *Mùs-ôo* *yè* *fǎaŋ-ò* *lè* *tǎa.*
woman-D CPL.POS cutlass-D FOC take
C1 pm C2 V
'The woman took THE CUTLASS.'

d. *Mùs-ôo* *táa-tá* *fàr-ôo* *lè* *tó.*
woman-D go-CPL.POS rice_field-D FOC LOC
C V X
'The woman went to THE RICE FIELD.'

Temporal expressions are the only terms for which a special focalizing construction is available. In this construction, the temporal expression precedes the clause and is marked not only by the focus particle *lè*, but also by the equative copula *mú* 'it is'.

5.3. Wh-questions

In wh-questions, an interrogative proform optionally followed by the focus particle *lè* takes the position occupied by expressions with the same semantic role in the corresponding assertive clauses, and no distinction is made between NPs in C, C1, C2, or X position – Ex. (36).

(36) a. *Jùmáa* *lè* *táa-tá* *fàr-ôo* *tó?*
who FOC go-CPL.POS rice_field-D LOC
C V X
'Who went to the rice field?'

b. *Jùmáa* *lè* *yè* *fǎaŋ-ó* *tǎa?*
who FOC CPL.POS cutlass-D take
C1 pm C2 V
'Who took the cutlass?'

c. *Mùs-ôo* *yè* *mǔŋ* *nè* *tǎa?*
woman-D CPL.POS what FOC take
C1 pm C2 V
'What did the woman take?'

d. *Mùs-ôo* *táa-tá* *mìntóo* *lè?*
woman-D go-CPL.POS where FOC
C V X
'Where did the woman go?'

5.4. Relativization (1)

Mandinka has two possible relativization strategies. They both make use of the relativizer *mîŋ* (with the dialectal variants *mêŋ* and *mûŋ*), but in two different ways. A first possibility (head-internal strategy) is that *mîŋ* occurs within the relativized clause, either as a determiner or a pronoun, in the position corresponding to the relativized role. This mechanism applies indistinctly to NPs in C, C1, C2, or X position (and also in non-argumental positions) – Ex. (37). [33]

(37) a. *mùs-ôo* *mîŋ* *táa-tá* *fàr-ôo* *tó*
woman-D REL go-CPL.POS rice_field-D LOC
C V X
'the woman who went to the rice field'

b. *mùs-ôo* *mîŋ* *yè* *fǎaŋ-ó* *tǎa*
woman-D REL CPL.POS cutlass-D take
C1 pm C2 V
'the woman who took the cutlass.'

c. *mùs-ôo* *yè* *fǎaŋ-ò* *míŋ* *tǎa*
woman-D CPL.POS cutlass-D REL take
C1 pm C2 V
'the cutlass that the woman took'

d. *mùs-ôo* *táa-tá* *fàr-ôo* *mîŋ* *tó*
woman-D go-CPL.POS rice_field-D REL LOC
C V X
'the rice field to which the woman went'

[33] The other possible relativization strategy, which has different implications with respect to argument selection, will be dealt with in Section 7.4.

6. Secondary predication as a construction in which core terms contrast with obliques, but core terms are all treated in the same way

As already mentioned, in Mandinka, NPs in core syntactic position (i.e., in preverbal position) have in common their non-omissibility, contrasting with the omissibility of obliques.

The same contrast between core terms and obliques is found in a secondary predication construction in which a nominal term is immediately followed by a secondary predicate. This construction, illustrated by Ex. (38), is possible with NPs in any of the three core positions, but not with obliques.

(38) a. *À* *sòonìnkèe-mâa* *lè* *nǎa-tá* *jǎŋ.*
3SG pagan-SPRED FOC come-CPL.POS here
C V X
'He came here when he was still a pagan.'

b. *À* *sòonìnkèe-mâa* *lè* *yè* *ñĭŋ* *sàatée* *lŏo.*
3SG pagan-SPRED FOC CPL.POS DEM village.D found
C1 pm C2 V
'He founded this village when he was still a pagan.'

c. *Ì* *yè* *à* *sòonìnkèe-mâa* *lè* *tólôo.*
3PL CPL.POS 3SG pagan-SPRED FOC enthrone
C1 pm C2 V
'They enthroned him when he was still a pagan.'

d. **Ì* *múrútì-tá* *à* *sòonìnkèe-mâa* *lè* *má.*
3PL rebel-CPL.POS 3SG pagan-SPRED FOC POSTP
C V X
Intended meaning: 'They rebelled against him when he was still a pagan.'

I am not aware of any other construction or operation with the same binary contrast between core terms and obliques.

7. Constructions and operations in which C/C1 contrasts with C2

7.1. Imperative clauses

Mandinka expresses orders implying the involvement of the addressee by means of imperative clauses in which C in the one-core-term construction and C1 in the two-core-term construction is left unexpressed, and the corresponding semantic role is the role the addressee is asked to fulfill in the event in question – Ex. (39).

(39) a. *Ø* *Sĭi* *yír-òo* *kótò!*
sit_down tree-D under
C V X
'Sit down under the tree!'

b. *Ø* *Díndíŋ-ó* *kŭu!*
child-D wash
C1 C2 V
'Wash the child!'

Note however that this syntactic constraint on imperatives may be viewed as a consequence of the fact that, in Mandinka, unexpressed arguments interpreted as an instruction that the addressee is asked to fulfill the corresponding role are only possible if the role in question implies some degree of volitionality.

7.2. Reflexivization and reciprocalization

The middle construction presented in 2.5 above is available to express reflexivization with a restricted set of verbs only (17 in my corpus), and it can only express C2 reflexivization in the two-core-term predicative construction. The productive reflexivization strategy involves intensive pronouns consisting of a personal pronoun and the intensive particle *fâŋ ~ fáŋò*. The rule is that, in the third person, the antecedent of intensive pronouns in C or C1 position cannot belong to the same clause and must be identified to a discursively salient entity, whereas intensive pronouns in C2 or X position can be co-indexed with the NP in C or C1 position – Ex. (40).

(40) a. *À* *fáŋò* *máŋ* *jìkí* *kèw-ôo* *lá.*
3SG INT CPL.NEG trust man-D POSTP
C pm V X
'He himself$_i$ doesn't trust the man$_{*i/j}$.'

b. *Kèw-ôo* *máŋ* *jìkí* *à* *fáŋò* *lá.*
man-D CPL.NEG trust 3SG INT POSTP
C pm V X
'The man$_i$ doesn't trust himself$_i$.'

c. *À* *fáŋò* *yè* *kèw-óo* *fàasâa.*
3SG INT CPL.NEG man-D defend
C1 pm C2 V
'He himself$_i$ defended the man$_{*i/j}$.'

d. *Kèw-óo* *yè* *à* *fáŋó* *fàasâa.*
man-D CPL.NEG 3SG INT defend
C pm C2 V
'The man$_i$ defended himself$_i$.'

As regards reciprocalization, Mandinka has a reciprocal pronoun *ñôo ~ ñôŋ* which cannot occur in C or C1 position and must be co-indexed with another term of the same clause. The reciprocal pronoun in X position may have any core term as its antecedent, whereas C1 is the only possible antecedent of the reciprocal pronoun in C2 position – Ex. (41).

(41) a. *Kèw-ôo-lú* *máŋ* *jìkí* *ñôo* *lá.*
man-D-PL CPL.NEG trust RECIP POSTP
C pm V X
'The men don't trust each other.'

**Ñôo* *máŋ* *jìkí* *kèw-ôo-lú* *là.*
RECIP CPL.NEG trust man-D-PL POSTP
C pm V X

b. *Kèw-ôo-lú* *yè* *ñóo* *kòntôŋ.*
man-D-PL CPL.POS RECIP greet
C1 pm C2 V
'The men greeted each other.'

**Ñôo* *yè* *kèw-ôo-lú* *kòntôŋ.*
RECIP CPL.POS man-D-PL greet
C pm C2 V

7.3. Infinitival constructions and coreference in clause coordination

Mandinka has three forms that, taken together, have uses broadly similar to those of the forms traditionally called infinitives in European grammars: the bare infinitive (morphologically unmarked), the *lá*-infinitive (marked by the verbal suffix *-lá*), and the *kà*-infinitive (marked by the particle *kà*, whose position can be analyzed as identical to that occupied by predicative markers in independent clauses).[34] In all cases, the only difference between infinitival phrases and independent assertive or interrogative clauses is that the participant encoded as the C or C1 term of independent clauses is obligatorily left unexpressed in infinitival phrases. Much in the same way as in European languages, depending on the construction in which the infinitival phrase is inserted, the lacking C/C1 may lend itself either to an arbitrary reading, as in (42a), or to identification with an argument of the main predicate, as in (42b).

(42) a. [$Ø_{arb}$ *kà* *Fúlá-káŋ-ó* *kàrâŋ*], *wǒo* *kòlèyâa-tá* *báakè* *lè.*
INF Fula-language-D learn DEM be_difficult-CPL.POS very FOC
C1 C2 V
'Learning the Fula language is very difficult.'

b. *Ń*$_i$ *làfî-tá* [$Ø_i$ *kà* *Fúlá-káŋ-ó* *kàrâŋ*]
1SG want-CPL.POS INF Fula-language-D learn
C1 C2 V
'I want to learn Fula.'

Ex. (43) illustrates the use of the *ka*-infinitive in a construction equivalent to clause coordination in other languages. In this construction, the unexpressed C/C1 argument of the

[34] For a detailed description of these forms and their uses, see Creissels & Sambou (2013: 125-132).

verb in the infinitive must be identified with the C/C1 argument of the first clause, without any distinction between C and C1, but any other type of coreference relationship between the two clauses would require the use of other constructions. [35]

(43) a. *Kàmbàan-óo$_i$* *dŭn-tà* *búŋ-ò* *kónó* *Ø$_i$* *kà* *sĭi.*
boy-D enter room-D in INF sit
C V X C V
'The boy went into in the room and sat down.'

b. *Kàmbàan-óo$_i$* *dŭn-tà* *búŋ-ò* *kónó* *Ø$_i$* *kà* *kèw-óo* *kòntôŋ.*
boy-D enter room-D in INF man-D greet
C V X C1 C2 V
'The boy went into in the room and greeted the man.'

c. *Kàmbàan-ôo$_i$* *yè* *kèw-óo* *kòntóŋ* *Ø$_i$* *kà* *sĭi.*
boy-D CPL.POS man-D greet INF sit
C1 pm C2 V C V
'The boy greeted the man and sat down.'

d. *Kàmbàan-ôo$_i$* *yè* *kèw-óo* *kòntóŋ* *Ø$_i$* *kà* *jíy-óo* *tăa.*
boy-D CPL.POS man-D greet INF water-D take
C1 pm C2 V C1 C2 V
'The boy greeted the man and took some water.'

7.4. Relativization (2)

The relativizer *mîŋ* already encountered (Section 5.4) in a relativization strategy in which all syntactic positions available for NPs can be relativized in the same way is also found in another relativization strategy in which C and C1 are treated differently from the other positions. In this construction, as illustrated by Ex. (45), *mîŋ* acts as a linker between the head noun and the relativized clause, within which the head noun is resumed by a pronoun. This strategy is available for C2, X, and non-argumental positions, but not for C or C1.

(44) a. **mùs-ôo* *míŋ* *à* *táa-tá* *fàr-ôo* *tó*
woman-D REL 3SG go-CPL.POS rice_field-D LOC
C V X
intended 'the woman who went to the rice field'

b. **mùs-ôo* *míŋ* *à* *yè* *făaŋ-ó* *tăa*
woman-D REL 3SG CPL.POS cutlass-D take
C1 pm C2 V
intended 'the woman who took the cutlass.'

[35] In Mandinka, the mere juxtaposition of two or more independent clauses, with no other integration marking than intonation, is a very common strategy to describe a succession of events.

c. *fǎaŋ-ò* *míŋ* *mùs-ôo* *yè* *à* *tǎa*
cutlass-D REL woman-D CPL.POS 3SG take
C1 pm C2 V
'the cutlass that the woman took'

d. *fàr-ôo* *míŋ* *mùs-ôo* *táa-tá* *jěe*
rice_field-D REL woman-D go-CPL.POS there
C V X
'the rice field to which the woman went'

7.5. Nominalization

Mandinka has no regular morphological process deriving event nouns from verbs, but with the only exception of *sǎa* 'die' (whose nominalized form is *sàayáa* 'death'), verbal lexemes can be freely used as event nouns. The most obvious manifestation of the nominal use of verbal lexemes is that verbs used nominally take the default determiner *-ò* in the same conditions as nouns.

Before describing the syntactic properties of verbal lexemes used as event nouns, some information is in order about the genitival construction. Mandinka has a distinction between direct genitives (preposed to their head without any overt mark of their function) and indirect genitives (preposed to their head too, but flagged by means of the postposition *lá*, otherwise widely used to flag obliques in predicative constructions). The direct genitival construction is used to encode typical 'inalienable' relationships, but is also the default construction with inanimate genitives, whatever the precise syntactic nature of the relationship underlying the use of the genitival construction – see Creissels and Sambou (2013: 241-252).

When a verb with a two-core-term construction as its basic coding frame is used nominally as an event noun, as illustrated by Ex. (45b), there is no apparent change in C2 and X terms converted into modifiers of a nominalized verb. Since C2 NPs in the predicative construction immediately precede the verb exactly in the same way as direct genitives immediately precede their head, one may argue that the C2 argument is encoded as a direct genitive in the construction of the nominalized verb, as proposed in Creissels and Sambou (2013), but I am aware of no decisive evidence that would impose this interpretation. By contrast, in the case of the C1 argument, nothing seems to contradict the only simple analysis according to which C1 is converted into an indirect genitive in the construction of the nominalized verb.

(45) a. *Mùs-ôo* *yè* *díndíŋ-ó* *nàatí* *kàràmbúŋ-ò* *tó.*
woman-D CPL.POS child-D bring school-D LOC
C1 pm C2 V X
'The woman brought the child to school.'

b. *mùs-ôo* *lá* *díndíŋ-ó* *nàat-óo* *kàràmbúŋ-ò* *tó*
woman-D POSTP child-D bring-D school-D LOC
'the fact that the woman brought the child to school'

Turning now to the nominalization of verbs with the one-core-term construction, as illustrated by Ex. (46b), the C argument is invariably encoded as an indirect genitive, like the C1 argument in the two-core-term construction.

(46) a. *Sùl-óo* *kàná-tá* *wùl-ôo* *má.*
monkey-D escape-CPL.POS dog-D POSTP
C V X
'The monkey escaped the dog.'

b. *sùl-ôo* *lá* *kàn-óo* *wùl-ôo* *má*
monkey-D POSTP escape-D dog-D POSTP
'the fact that the monkey escaped the dog'

Since in general, the choice between direct and indirect genitival construction is sensitive to semantic factors, it is important to observe that, when verbs having a one-core-term construction as their basic coding frame are nominalized, the C argument is automatically encoded as an indirect genitive, regardless of its nature and the precise semantic role it is assigned. In particular, this rule applies to inanimate C's too, whereas in genitival constructions headed by ordinary nouns, the encoding of inanimates as indirect genitives, although not completely excluded, is very exceptional.

7.6. Gerundive incorporation

The form for which the label 'gerundive' is used by Creissels and Sambou (2013), marked by a suffix *-tôo*, is a form typically used in the secondary predication construction presented in Section 6 above. In a semantically equivalent construction, the gerundive is the first formative of a compound verb. However, as illustrated by Ex. (47), an incorporated gerundive can be interpreted as expressing a predication about C (in the one-core-term construction) or C1 (in the two-core-term construction), but not about C2.

(47) a. *Kàmbàan-óo* *kàmfàa-tòo-táa-tà.*
boy-D get_angry-GER-leave-CPL.POS
C V
'The boy left angry.'

b. *Kàmbàan-ôo* *yè* *mùs-óo* *kàmfàa-tòo-búutêe.*
boy-D CPL.POS woman-D get_angry-GER-strike
C1 pm C2 V
'The boy, being angry, struck the woman.'

7.7. Discourse particles

The C/C1 vs. C2/X contrast is relevant to the description of the use of some discourse particles too:

– the contrastive particle *dŭŋ* can only follow C in the one-core-term predicative

construction, or C1 in the two-core-term predicative construction;
– when used as an additive particle (‘also’, ‘too’), *fánáa ~ fánáŋ* can be postposed to NPs in any syntactic position, but when used to encode topic shift (‘in his/her turn’) *fánáa ~ fánáŋ* can only combine with NPs in C or C1 position.

8. Constructions and operations in which C/C2 contrasts with C1

8.1. The resultative participle

Mandinka has a resultative participle marked by a suffix *-riŋ* (with the variant *-diŋ* if the stem to which it attaches ends with a nasal). As illustrated in (48) by its predicative use in combination with the locational copula *bé*, with verbs for which the one-core-term predicative construction is basic (like *kùurâŋ* ‘get sick’ in (48a)), the noun it refers to is assigned the role assigned to C in the basic construction of the verb, whereas with verbs that have the two-core-term construction as their basic construction (like *sáfè* ‘write’ in (48b)), the resultative participle assigns the role assigned to C2 in the basic construction of the verb. Note that there is no way to include an agent phrase in this construction.

(48) a. *Kèw-ôo* *bé* *kùurân-díŋ.*
man-D LOC.COP get_sick-RES
‘The man is sick.’

b. *Lèetár-òo* *bé* *sáfè-ríŋ.*
letter-D LOC.COP write-RES
‘The letter is written.’

8.2. Similative incorporation

In Mandinka, similarity relationships involving NPs in core syntactic position can be expressed by means of the similative incorporation construction illustrated by Ex. (49).

(49) a. *Kàmbàan-ôo* *sólí-sáwùn-tá.*
boy-D leopard-jump-CPL.POS
C V
‘The boy jumped like a leopard.’

b. *Mòô-lú* *yé* *sùŋ-óo* *wùlù-fâa.*
person.D-PL CPL.POS thief-D dog-kill
C1 pm C2 V
‘The people killed the thief like a dog.’

In (49a), logically speaking, the similarity relationship is between *JUMP(the_boy)* and *JUMP(leopards)*, whereas in (49b), it is between *KILL(the_people, the_thief)* and *KILL(x, dogs)* (‘The people killed the thief as if he were a dog’). Crucially, this construction is not available to express similarity between *KILL(the_people, the_thief)* and *KILL(dogs, y)* (‘The people killed the thief as if they were dogs’). In other words, in terms of semantic roles, the incorporated

noun can be identified to C in the one-core-term construction or to C2 in the two-core-term construction, but not to C1.

9. Constructions and operations with a tripartite treatment of C, C1 and C2

As already mentioned in Section 4.2.1, Mandinka has a valency operator analyzable as an antipassive marker, found in particular in the antipassive periphrasis making it possible to leave unexpressed the patientive argument of bivalent verbs whose agentive argument cannot be expressed as the unique core term or a one-core-term predicative construction. This antipassive marker also occurs in a progressive periphrasis with a behavior resulting in a tripartite treatment of C, C1 and C2.

Mandinka has a locational copula *bé* 'be located at', which does not combine with predicative markers but in all other respects behaves like regular verbs in a one-core-term predicative construction. In addition to its prototypical use in the expression of spatial relationships, this locational copula is found in a progressive periphrasis in which it takes a verb used nominally as its complement. The nominalized verb may constitute a noun phrase alone or accompanied by a genitival modifier, and this phrase is flagged by the postposition *lá*. Consequently, this periphrasis can be schematized as follows:

C *bé* (Gen) V_{nom} *lá* X*

In this construction, the slots C and Gen are available for NPs representing the core arguments of the nominalized verb, and the relationship between semantic role assignment in the progressive periphrasis and in plain verbal clauses is illustrated by Ex. (50) and (51).

(50) a. *Yír-óo* *bòyí-tà.*
tree-D fall-CPL.POS
C V
'The tree fell down.'

b. *Yír-òo* *bé* *bòy-ôo* *lá.*
tree-D COP.LOC fall(ing)-D POSTP
C Cop V_{nom} Postp
'The tree is falling down.'

(51) a. *Mùs-ôo* *yè* *màan-óo* *tǔu.*
woman-D CPL.POS rice-D pound
C1 pm C2 V
'The woman pounded the rice.'

b. *Mùsôo* *bé* *màan-óo* *tùw-ôo* *lá.*
woman-D COP.LOC rice-D pound(ing)-D POSTP
C Cop Gen V_{nom} Postp
'The woman is pounding the rice.'

c. *Màan-ôo* *bé* *tùw-ôo* *lá.*
rice-D COP.LOC pound(ing)-D POSTP
C Cop V_{nom} Postp
'The rice is being pounded.'

d. *Mùsôo* *bé* *tùu-r-ôo* *lá.*
woman-D COP.LOC pound(ing)-ANTIP-D POSTP
C Cop V_{nom} Postp
'The woman is pounding.'

As illustrated by these two examples, the treatment of core arguments in the progressive periphrasis can be described as follows:

- with verbs having a one-core-term construction as their basic coding frame, the C term of the progressive periphrasis invariably represents the C argument in the basic construction of the verb, without any additional complication;
- with verbs having a two-core-term construction as their basic coding frame, the C1 argument can only be encoded as C in the progressive periphrasis, but if the C2 argument is left unexpressed, the antipassive marker is obligatorily present – Ex. (51d); [36]
- with verbs having a two-core-term construction as their basic coding frame, the C2 argument is encoded as C if the C1 argument is left unexpressed – Ex. (51c), but as the genitival modifier of the nominalized verb if the C1 argument is encoded as the C term of the progressive construction – Ex. (51b).

10. Conclusion

In this paper, I have first shown that, in the predicative constructions of Mandinka, four possible syntactic positions for arguments (C, C1, C2, and X) can be distinguished on a strictly language-internal basis. C is the position occupied by the sole argument of monovalent verbs, with the exception of a minor class of monovalent verbs selecting the middle variant of the two-core-term construction as their only possible coding frame. <C1, C2> is the basic coding frame for the vast majority of bivalent verbs, and in particular for all bivalent verbs characterizable as core transitive verbs

Although Mandinka has neither flagging nor indexation of core arguments, and core arguments invariably precede the verb, the position of predicative markers makes it possible to establish A-alignment (or 'accusative' alignment) in the coding properties of arguments.

The analysis of syntactic operations and constructions likely to be relevant to the definition of grammatical relations has shown that none of them would justify splitting the single arguments of monovalent verbs into two or more subclasses, and most syntactic operations and constructions straightforwardly confirm the S = A ≠ P alignment apparent in the coding properties of arguments:

[36] As already mentioned in Section 4.2.1, I am aware of two exceptions to this rule: *sènè* 'cultivate' and *fìirí* 'sell' behave in all other respects as verbs having the two-core-term construction as their basic coding frame, but occur in their non-derived form in constructions that normally require the use of the antipassive marker.

– causativization (Section 4.2.2);
– imperative (Section 7.1);
– reflexivization (Section 7.2);
– reciprocalization (Section 7.2);
– infinitival constructions (Section 7.3);
– the relativization strategy described in Section 7.4;
– nominalization (Section 7.5);
– gerundive incorporation (Section 7.6);
– the adjunction of some discourse particles (Section 7.7).

It is particularly interesting to observe that, in Mandinka, the S = A ≠ P alignment is found even in nominalization, a syntactic operation known for favoring ergative alignment even in otherwise robust accusative languages.

Consequently, Mandinka is among the languages whose description is greatly facilitated by the recognition of a grammatical relation 'subject' conflating C (or S) and C1 (or A). Moreover, the complications dealt with in terms of 'non-canonical subjects' in other languages are not found in Mandinka, and this is probably related to the absolutely rigid constituent order characteristic of Mande languages.

However, Mandinka also has several constructions or operations with no differentiation between S, A, and P:

– topicalization (Section 5.1);
– focalization (Section 5.2);
– wh-questions (Section 5.3);
– the head-internal relativization strategy (Section 5.4);
– secondary predication (Section 6).

There are also a few constructions or operations that function according to the S = P ≠ A alignment:

– the resultative construction (Section 8.1);
– similative incorporation (Section 8.2).

And finally, a tripartite treatment of S, A, and P is found in the progressive construction (Section 9).

This confirms that, even in relatively well-behaved 'accusative' languages in which the S = A ≠ P alignment found in the coding properties of arguments is also clearly dominant in syntax, it must not expected to extend to all syntactic operations and constructions relevant to the definition of syntactic relations.

Abbreviations

ANTIP: antipassive, BEN: benefactive postposition, C: single core term in the one-core-term predicative construction C1: noun phrase preceding predicative markers in the two-core-term predicative construction, C2: noun phrase inserted between predicative markers and verbs in the two-core-term predicative construction, CAUS: causative, CPL: completive aspect, D:

default determiner, DEM: demonstrative, FOC: focalization, Gen: genitive, GER: gerundive, INCPL: incompletive aspect, INF: infinitive, INT: intensive, LOC: locative postposition, LOC.COP: locative copula, NEG: negative, POSTP: postposition, PL: plural, pm: predicative marker, POS: positive, PSPH: postposition encoding the meaning 'within the personal sphere of', RECIP: reciprocal, REFL: reflexive pronoun, REL: relativizer, RES: resultative, SPRED: secondary predicate, V: verb, V_{nom}: verb used as an event noun, X: oblique.

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