

**Embedded clauses with nominal internal structure in Wan (Mande):  
Mixed syntax without class-changing morphology**

**1. Introduction<sup>0</sup>**

This paper addresses the problem of morphological exponence of mixed category constructions. Mixed category constructions combine properties of two distinct syntactic categories, such as noun phrase and verb phrase; for example, verbal nominalizations or participles often have the distribution of nouns or adjectives, but at the same time retain certain verbal syntactic characteristics. Previous studies of such constructions were limited to instances where the head is derived by a word-class changing (e.g. nominalizing) affix and the mixed syntactic properties correspond to the complex morphological structure of the lexical head (cf., *inter alia*, Abney 1987, Baker 1985, Haspelmath 1989, Bresnan 1997). I discuss data that suggests instead that the word-class changing morphology of the head is but one possible source of constructions with mixed syntactic properties.

The view that mixed categories do not always have a morphological exponent is supported by evidence from a special type of nonfinite clause in Wan (Southeastern Mande, Côte d'Ivoire). In Wan, the word order of finite clauses and most types of nonfinite clauses (e.g., embedded clauses with subject control) is strictly S-O-V-X ("Subject-Object-Verb-Other"), where the verb is preceded by its object and followed by all postpositional arguments and adjuncts. In a subset of embedded clauses, however, intransitive verbs are systematically preceded by an oblique argument (X-V). Such embedded clauses with non-standard word order can be described in terms of mixing of verbal and nominal syntactic properties. I argue that, on the one hand, the head of such clauses (the nonfinite verb) combines with its arguments in a way typical of noun phrases. On the other hand, such clauses are headed by a non-nominalized verb and differ in their distribution from a noun phrase or a nominalized clause.

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These unusual syntactic properties can be accounted for if embedded clauses in question are analyzed as instances of a mixed category construction that combines the external distribution of a verb phrase with the internal structure of a noun phrase. In this sense, the construction is a mirror image of nominalization that retains verbal internal syntax. An important difference between this construction and nominalization has to do with the morphological properties of the head. With nominalizations, the combination of verbal and nominal properties can be derived from the word-class changing morphology of the construction's lexical head. In Wan, however, the difference in the syntactic structure of the embedded clause with mixed properties, on the one hand, and the regular verb phrase, on the other, does not correspond to an overt morphological distinction. I suggest that this unusual construction could reflect the syntax of the nonfinite verb at an earlier stage in the development of Wan.

The paper is organized as follows. In section 2 I give an overview of the syntax of Wan. In particular, I discuss distributional evidence for the distinction between noun and verb (section 2.2) and outline the basics of sentence structure (section 2.3). Section 3 introduces two distinct patterns of argument realization found in embedded clauses, one parallel to the pattern observed in finite clauses, the other displaying non-standard syntactic properties. I discuss the non-standard syntactic properties of such clauses in section 4 and the role of morphology in mixed category constructions in section 5. Section 6 concludes the paper.

## **2. Introduction: basics of Wan sentence structure**

### **2.1. Basic word order**

Wan is a Southeastern Mande language spoken in central Côte d'Ivoire; the data discussed in this paper was collected as part of a language documentation project in the village of Kounahiri (2001) and in Abidjan (2004, 2006). The basic word order of Wan is SOVX: verbs are preceded by subjects and objects but followed by all postpositionally marked arguments and adjuncts. This word order is illustrated in examples (1)-(2). In (1), an intransitive verb takes an oblique argument expressed by a postpositional phrase; in (2), the verb takes an object and an oblique argument. In both cases, the subject and the object—when present—precede the verb, and the postpositional complements follow it.

- |     |         |                             |       |      |    |        |
|-----|---------|-----------------------------|-------|------|----|--------|
|     | S       | V                           | PP    |      |    |        |
| (1) | è       | kúnā̄                       | sógò  | tā   |    |        |
|     | 3SG.SBJ | climbed                     | horse | on   |    |        |
|     |         | ‘He climbed on a horse.’    |       |      |    |        |
|     | S       | O                           | V     | PP   |    |        |
| (2) | è       | kléně̀                      | tálā  | bòlè | mù | klà    |
|     | 3SG.SBJ | stone                       | threw | bird | PL | behind |
|     |         | ‘He threw stones at birds.’ |       |      |    |        |

In this paper, I will be concerned with the relative position of the verb and its complements in Wan, and especially with deviations from the typical ordering of the verb and its oblique argument (normally, Verb - PP).

## 2.2. Noun, verb, and nominalization

In Mande languages, the distinction between nouns and verbs is sometimes difficult to draw, as morphologically unmarked forms of the verb appear in syntactic positions that tend to be associated with nouns in other languages, such as argument positions. This has led a number of researchers to conclude that Mande languages lack the distinction between the lexical classes of noun and verb, cf. the following summary from Heine and Reh (1984: 198-9):

“Most word classes show a noun-like behaviour. This applies in particular to “verbs”, which in many ways are indistinguishable from nouns. This point has been frequently alluded to in the writings on Mande languages. Delafosse (1929) for example repeatedly mentions how difficult it is to distinguish between verbs and nouns in Eastern Manding. Rowlands (1969: 145/46) talks of “verb-noun stems” in Mandinka and treats main “verbs” as nouns since they are followed by postpositions and may take the nominal specific marker -o. Manessy (1962: 67) calls his “verbs” *radicaux bivalents* since they can be used both in a nominal and a verbal function, whereas *radicaux monovalents* are always used as nouns. Kastenholz (1979: 87) proposes to refer to “verbs” as “verbal nouns” in view of their nominal behaviour.”

The difficulties associated with drawing the distinction between the classes of noun and verb in Wan appear to be due to two major factors: (i) the lack of distinction between genitive and accusative noun phrases (both nominal modifiers and direct objects precede their heads, cf. a noun phrase *Tātá tʰgɔ̃lɛ̃* ‘Tata’s older brother’ and a verb phrase *Tātá é* ‘to see Tata’; cf. Innes 1967), and (ii) the lack of a clear morphological distinction between finite and nonfinite forms of the verb, i.e. the lack of a morphologically distinct form that would correspond to the infinitive of better studied Indo-European languages.

In Wan, the same verb form can be used both in non-finite clauses (as in (3a), where the finite auxiliary combines with a nonfinite verb, marked for the progressive aspect) and in certain types of finite clause. In particular, this form is used in finite clauses with non-past temporal reference (e.g., when the temporal reference is constrained by a future adverbial, as in 3b). The majority of verbs, including *zò* ‘come’, have a distinct tonal pattern when used finitely with past tense reference, as in (3c), where the low lexical tone of the verb is substituted for the mid tone of the past tense.

- (3) a.    *è*                    *á*    *zò*    *lé*  
           3SG.SBJ          COP    come    PROG  
           ‘He is coming.’ [lit., “He is at coming.”]
- b.    *è*                    *zò*    *á*    *z̄*  
           3SG.SBJ          come    COP    today  
           ‘He will come today.’
- c.    *è*                    *z̄*                    (*á*)    *z̄*  
           3SG.SBJ          came                    COP    today  
           ‘He came today.’

Not all verbs, however, have a distinct tone in the past tense form. For a number of verbs, the nonfinite forms are identical to forms used in finite clauses. With such verbs, no morphological distinction can be drawn between finite and nonfinite forms.

Nonfinite clauses can function as arguments of certain matrix verbs. In (4), the verb *kúnǎ* ‘climb’ is used as a nonfinite complement of the transitive verb *ságlà* ‘start’, which takes a verb phrase as its object.

- (4) *è* [ *kúnǎ* ]<sub>OBJ</sub> *ságlā*  
 3SG.SBJ climb started  
 ‘He began to climb.’

The position of the nonfinite verbal complement (‘climb’) in (4) is identical to the position of the object of a transitive verb; no other arguments can precede the verb (more discussion to follow in section 2.3). Besides, the verb *ságlā* ‘start’ is clearly transitive and can take semantically appropriate noun phrase objects, as well as verbal complements, as in (5a) vs. (5b).

- (5) a. *è yrē é ságlā*  
 3SG.SBJ work DEF started  
 ‘He began the work.’  
 b. *è yrē é lō ságlā*  
 3SG.SBJ work DEF do started  
 ‘He began doing the work.’

The examples in (4) and (5b) demonstrate that certain verbs take nonfinite clauses that share their position with transitive objects (i.e. precede the verb). In (6), too, the verb *pà* ‘be capable of’ selects for a nonfinite verb phrase, but this time the verbal complement is postpositional (the verb *pà* ‘be capable of’ is intransitive). The embedded verb phrase (in bold) is marked by the postposition *lé* and follows the verb, consistent with the SOVX basic word order.

- (6) *lā pà-η [ wíá lé ]<sub>PP</sub> ɔ*  
 you be.capable-NEG enter POST NEG  
 ‘You cannot enter.’

Unlike the object of the verb *ságlā* ‘start’ (5a-b), the argument of the postposition with *pà* ‘be capable of’ can only be verbal; noun phrases cannot be used in this position.

Finally, with some matrix predicates, nonfinite phrases can correspond to the subject of the sentence, as in the following example with the verb *sɔ* ‘please’. (The experiencer of *sɔ* ‘please’ is expressed by a postpositional phrase.)<sup>1</sup>

<sup>1</sup> In (7), as well as in (8), the verb is separated from its postpositional complement by a copula. These are instances of the “stative perfect” construction, which is normally used in descriptions of resulting states. Special properties of this construction are orthogonal to the present discussion, since the use of this construction has no effect on the encoding of arguments of the verb.

	[			]	VP	V	Cop	PP	
(7)	<i>bā</i>	<i>lé</i>	<i>yrē</i>	<i>lò</i>		<i>só</i>	<i>á</i>	<i>ỳ</i>	<i>lèη</i>
	field	surface	work	do		please	COP	1SG	to

‘I enjoy working in the field.’ [lit. ‘Doing field work pleases me.’]

There are some indications that nonfinite clauses like the one in (7) do not share their syntactic position with canonical NP subjects, but instead appear in the topic position. (Such an analysis would be parallel to the treatment of English non-extraposed subject sentences and infinitival clauses originally proposed by Koster (1978), who argues that such elements appear as “satellites” binding a phonologically zero NP in the canonical subject position.) For example, with matrix verbs whose subject can be expressed by a nonfinite verb phrase, a noun phrase subject is always an option, as in (8).<sup>2</sup>

	[S			]	V	Cop	PP	
(8)	<i>bā</i>	<i>lé</i>	<i>yrē</i>		<i>só</i>	<i>á</i>	<i>ỳ</i>	<i>lèη</i>
	field	on	work		please	COP	1SG	to

‘I enjoy working in the field.’ [lit. ‘Field work pleases me.’]

Further discussion of the behavior of nonfinite phrases in this position is outside of the scope of this paper. What is important for the analysis presented here is that in Wan, phrases headed by verbs appear as complements of certain matrix verbs (as in 4-6). In other words, the syntactic positions normally associated with objects and postpositional oblique arguments are not restricted to noun phrases but, with certain matrix verbs, can be filled by nonfinite verb phrases.

It does not, however, seem appropriate to conclude, based on evidence of this kind, that Wan lacks a distinction between the lexical classes of noun and verb, or that an argument headed by a nonfinite verb can function as either a noun phrase or a verb phrase. First of all, the lexical indeterminacy assumption does not explain the fact that a particular verb can select for a strictly nominal or a strictly verbal argument. For

<sup>2</sup> The view that the topic position, as well as the subject position, is available with verbs like *só* ‘please’ is also supported by examples like (i), where a noun phrase subject is marked by a determiner and followed by a postpositional phrase. This configuration is impossible in any syntactic position other than the topic position, since postpositional phrases normally appear after the finite verb (more in section 2.3).

(i) [*yrā mù gā-η klé wā é làklù gó*]<sub>TOP</sub> *só-η* *ỳ lèη ́*  
 children go-NMLZ lack DET school in please-NEG 1SG to NEG  
 ‘I don’t like it when children don’t go to school.’  
 [Lit. ‘The lack of children’s going to school does not please me.’]

example, the postpositional argument of *pà* ‘be capable of’ cannot be replaced with a noun phrase (cf. *He is capable of anything*). The fact that a matrix verb can select for the syntactic category of its complement (here, the VP) suggests that noun phrases should be distinguished from verb phrases.

Secondly, the lexical indeterminacy assumption also fails to account for the fact that in Wan, morphologically unmarked verbs cannot appear in certain syntactic environments that are available to noun phrases. Only noun phrases are allowed to modify nominal heads, as in *Tātá tógōlē* ‘Tata’s elder brother’, where the nominal head *tógōlē* ‘elder brother’ is preceded by a proper noun referring to the possessor. A verb can only appear in this position in a derived form, marked by the nominalizing suffix *-ŋ*. This is illustrated in (9a-b), where only the derived form of the verb is allowed to modify the nouns *gbè* ‘manner (of doing something)’ and ‘reason’ (for doing something).

- |     |    |          |                             |            |                            |
|-----|----|----------|-----------------------------|------------|----------------------------|
| (9) | a. | <i>à</i> | <i>táò-ŋ</i> / * <i>táò</i> | <i>gbè</i> | ‘his manner of walking’    |
|     |    | his      | walk-NMLZ/ *walk            | manner     |                            |
|     | b. | <i>à</i> | <i>zò-ŋ</i> / * <i>zò</i>   | <i>zē</i>  | ‘the reason of his coming’ |
|     |    | his      | come-NMLZ/ *come            | reason     |                            |

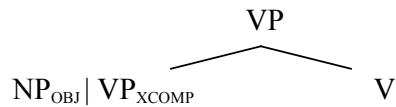
The examples in (9a-b) provide evidence that complements headed by bare nonfinite verbs cannot be analyzed simply as noun phrases, since the same nonfinite verbs cannot, in their non-derived form, appear as nominal modifiers, in a position available to NPs or DPs. This suggests that although in Wan finite and nonfinite forms of the verb are often formally non-distinct and verb phrases appear as complements of certain matrix verbs, the syntactic distribution of nonfinite clauses is different from that of noun phrases. In other words, the syntax of Wan is sensitive to the three-way distinction between finite verbs (heads of I’), nonfinite verbs (heads of VP), and deverbal nouns (heads of NP). The former two forms of the verb do not always differ at the morphological level, yet each of the three categories has a syntactic distribution distinct from the others.

### 2.3. Postpositional phrases in sentence structure

The following sections address the problem of non-canonical (preverbal) expression of oblique arguments in certain types of nonfinite clause. In order to establish a

syntactic analysis for such clauses, it is necessary first to characterize the structural relationship between the verb and its arguments in clauses with canonical word order (S-O-V-X). The structure of the Wan verb phrase is represented in (10). It consists of the verb, preceded by an object if the verb is transitive (objects invariably precede the verb in all clause types). Instead of an object NP, certain matrix verbs select for a nonfinite verb phrase complement (as in 5b with the verb *ságlà* ‘start’); following the tradition of Lexical-Functional Grammar, such complements are represented in (10) as VP<sub>XCOMP</sub>.

(10) Structure of the VP



While in finite clauses postpositional arguments tend to immediately follow the verb, different kinds of adjuncts may sometimes intervene between them, as in (11), where the goal argument is separated from the verb by a manner adjunct—the postpositional phrase *blè yā* ‘with quickness’.

(11)  $\overset{\grave{a}}{\text{z}}\text{ō}$       *zō*      *blè*      *yā*      *kɔŋ*      *gó*  
 3PL    came      quickness    with    village    in  
 ‘They quickly returned to the village.’

When a matrix verb takes a verb phrase as its argument, the embedded verb is systematically separated from its postpositional arguments or adjuncts. For example, when a verb phrase precedes a matrix verb as a nonfinite complement, the embedded verb is always separated from its postpositional argument, which follows the finite verb.<sup>3</sup> In (13a), the verb *ságlà* ‘start’ takes a verbal complement; compare the finite use of the same verb and the postpositional argument in (12).

(12) S                      V                      [ PP                      ]  
 $\text{è}$                       *kúnā*                      *yrē*    *é*                      *gó*  
 3SG.SBJ              climbed                  tree    DEF                  in  
 ‘He climbed the tree.’

<sup>3</sup> This holds both for optional arguments and for obligatory postpositional arguments, which suggests that the syntactic position of the PP (separated from the verb that selects for it) cannot be attributed to its adjunct-like status.

- (13) a. *è kúnǎ ságlā [ yrē é gó ]<sub>PP</sub>*  
 3SG.SBJ climb started tree DEF in
- b. \* *è kúnǎ [ yrē é gó ]<sub>PP</sub> ságlā*  
 3SG.SBJ climb tree DEF in started
- ‘He began to climb the tree.’

The verbal head of the embedded clause (*kúnǎ* ‘climb’) appears in (13a) in the object position, before the matrix verb, and its postpositional argument (*yrē é gó* ‘in the tree’) follows the matrix verb. Adjacent placement of the embedded verb and its oblique argument is not allowed.

When the matrix verb takes a nonfinite clause as its oblique argument, marking it with a postposition, that postposition again separates the embedded verb from its postpositional argument. In (14) the verbal complement of the intransitive verb *pà* ‘be capable of’ is marked by the postposition *lé*, which intervenes between the embedded verb *wiá* ‘enter’ and its postpositional argument ‘under the house’ (cf. the finite use of the embedded verb with the same postpositional argument in 15).

- |      |           |             |            |           |             |           |                  |
|------|-----------|-------------|------------|-----------|-------------|-----------|------------------|
|      | S         | V           | [ PP       | ]         | [ PP        | ]         | Neg              |
| (14) | <i>lā</i> | <i>pà-η</i> | <i>wiá</i> | <i>lé</i> | <i>kú é</i> | <i>wā</i> | <i>ó</i>         |
|      | you       | can-NEG     | enter      | POST      | house DEF   | under     | NEG <sup>4</sup> |
- ‘You cannot enter the house.’
- (15) *è wiā kú é wā*  
 3SG.SBJ entered house DEF under
- ‘He entered the house.’

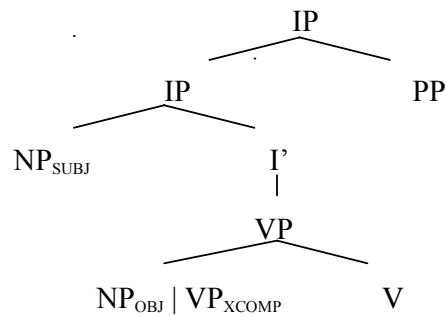
The systematic discontinuities in the expression of verbs and their postpositional arguments suggest that the verb does not form a syntactic constituent with its postpositional arguments (see Nikitina 2008a for details). In the absence of any compelling evidence in favor of such a constituent, I will treat sentences with oblique arguments as having the structure represented in (16).

<sup>4</sup> In sentences with negation, the negative marker is sentence-final and follows all postpositional phrases. Similarly, in sentences with purpose clauses, the negative marker referring to the first (main) clause appears after the purpose clause; the scope of negation is often indicated by a suffix on the negated verb:

(ii) *η gà-η plē-lé tí-tí b́é nǎǎ súglù lù ó*  
 1SG go-NEG market-at a.lot CONJ 1SG.PROG manioc buy NEG

‘I do not go to the market to buy manioc.’

(16) Wan sentence structure



The structure in (16) is intended to capture the fact that all postpositional arguments, as well as adverbials, appear after the finite verb. This behavior characterizes not only arguments of the finite verb itself, but also all postpositional arguments and adjuncts associated with any embedded verb. As a result, a postpositional phrase following the finite verb can correspond to an oblique argument of the main verb or to an oblique argument of a nonfinite verb embedded in the sentence.<sup>5</sup> According to the structure in (16), postpositional phrases selected by any verbal head within the sentence follow the finite verb.

While the postpositional arguments of all verbs—main or embedded—follow the main verb along with any adjuncts, the ordering of the postpositional arguments selected by the main and embedded verbs need not reflect the ordering of the verbs themselves. Finally, there appears to be no fixed ordering between postpositional arguments and adjuncts (although a stronger preference may exist for a particular ordering in some sentences, presumably due to semantic reasons, considerations of information structure and structural heaviness). In (11), for example, the manner adjunct precedes the goal argument, but their order may be reversed, as in (17).

- (17)  $\dot{a}$        $z\bar{o}$                $k\bar{5}\eta$      $g\acute{o}$      $bl\grave{e}$        $y\bar{a}$   
3PL    came              village in    quickness with  
'They quickly returned to the village.'

<sup>5</sup> The massive extraposition of postpositional arguments and adverbials leads to potential ambiguities in establishing a correspondence between the extraposed elements and their respective verbs. Such ambiguities are similar to instances of ambiguous PP attachment in English (as in *I saw the man with a telescope*) and hardly constitute a real problem for language speakers, due to the low frequency of instances that are potentially ambiguous in context and the abundance of ways to avoid, when necessary, the stacking of multiple verbs with postpositional arguments in the same sentence.

### 3. Argument realization with embedded verbs

#### 3.1. Embedded clauses with canonical argument realization

The behavior of oblique arguments in nonfinite clauses has not received much attention in the studies of Mande syntax. As the earlier examples (12, 14) suggest, with matrix verbs like *pà* ‘be capable of’ or *ságlà* ‘start’, the embedded clause preserves the canonical word order of finite clauses (SOVX): the direct object precedes the nonfinite verb, as in (18), and oblique arguments follow the verb, as in (12), repeated below as (19).

- (18) *è yrē lō ságlā*  
3SG.SBJ work do started  
‘He started to work.’ [lit. ‘He began doing work.’]
- (19) *è [ [kúnà]<sub>VP</sub> ságlā ]<sub>I</sub>, yrē é gó*  
3SG.SBJ climb started tree DEF in  
‘He began to climb the tree.’

In (19), the oblique argument of the embedded verb *kúnà* ‘climb’ is expressed by a postpositional phrase, just like in finite clauses with the same verb (cf. 12), and the postpositional phrase is separated from the embedded verb by the finite verb.

Although the subject of the embedded clauses in (18) and (19) is not expressed overtly, it is interpreted as coreferential with the subject of the matrix verb. This referential dependency can be described as a control relation between the subject of the main clause and the unexpressed subject of the verbal complement. The relation of referential dependency between the unexpressed subject and an argument of the main clause also holds for other verbs that take nonfinite clauses with the canonical expression of verbal complements (such as ‘be capable of’ in 14). It turns out, however, that this is not the only possible complementation pattern found in nonfinite clauses. In the next section I introduce matrix verbs that take nonfinite clauses with “non-canonical” argument realization.

#### 3.2. Embedded clauses with non-canonical argument realization

Verbal complements of some matrix verbs appear in configurations that are never found in finite clauses or in nonfinite clauses with referentially dependent subjects. In

such “non-canonical” clauses, an intransitive verb is preceded by its oblique argument. For example, the verb *dìnǎ̀* ‘teach’ takes a nominal object (denoting the student) and a verbal postpositional argument (denoting the activity) marked by the postposition *yā́*.<sup>6</sup>

- (20) *yā́á*            *yrǎ́ mū*    *é*    *dìnǎ̀*    *lé*            [ *bitǎ̀*        *yā́* ]<sub>PP</sub>  
                   3SG+COP    children DEF    teach    PROG            **dance**        POST  
                   ‘She is teaching the children to dance.’

The verb *bitǎ̀* ‘dance’ is intransitive and may only take postpositional arguments, as in (21):

- (21) *yā́á*            *bitǎ̀*    *lé*            *plíj bálè lé*  
                   3SG+COP    dance    PROG            **drum big on**  
                   ‘She is dancing to (the sound of) a big drum.’

In (22), the verb *dìnǎ̀* ‘teach’ takes a verbal complement consisting of a verb with a postpositional argument. Surprisingly, the postpositional argument of the embedded verb appears not at the end of the sentence (as the sentence structure in (15) would predict), but in the preverbal position, which is normally restricted to transitive objects or nonfinite complements.

- (22) *yā́á*            *yrǎ́ mū*    *é*            *dìnǎ̀*    *lé*            *plíj bálè lé bitǎ̀*        *yā́*  
                   3SG+COP    children DEF    teach    PROG            **drum big on dance**        POST  
                   ‘She is teaching the children to dance to (the sound of) a big drum.’

Embedded clauses with this structure are only found with a small set of matrix verbs, such as *dìnǎ̀* ‘teach’ and *lā́* ‘show (how to)’, as well as in sentences with non-verbal predicates, such as (23)-(24).

- (23) *trē gó gònǎ̀*                    *á*            *é kpālē*            *yā́*  
                   **night in get.up**                    COP        PRT difficult        with  
                   ‘To get up at night is difficult.’
- (24) *kú kē é wā yí*            *á*            *é kpālē*            *yā́*  
                   **house this DEF under live**        COP        PRT difficult        with  
                   ‘To live in this house is difficult.’

<sup>6</sup> The examples in (20-22) are in the progressive aspect, which is formed periphrastically using the locative marker *lé* (lit. ‘be at teaching’); the progressive set of subject pronouns derives from fusion of regular pronouns with the copula.

In (23) and (24), the nonfinite clause with non-canonical argument realization corresponds to the subject. In (22), ‘teach’ takes it as a postpositional argument; in (26), it precedes the verb ‘show’ as its nonfinite complement (cf. the postpositional oblique argument in the finite sentence in (1), repeated below as 25).

(25) *è kúnā́ sógò tā*  
 3SG.SBJ climbed horse on  
 ‘He mounted a horse.’

(26) *yāá sógò tā kúnā́ lā lé é gbè lèŋ*  
 3SG+COP horse on climb show PROG RFL son to  
 ‘He is showing to his son how to mount a horse.’ (= ‘how one climbs on a horse’)

In this type of clause, an oblique argument appears in the preverbal position with intransitive verbs.<sup>7</sup> With transitive verbs, the preverbal position is occupied by the object, and all oblique arguments of the embedded verb are expressed as postpositional phrases following the main verb. The preverbal expression of transitive objects is common for verbal arguments with both “canonical” and “noncanonical” structure. This is illustrated in (27) for a transitive embedded clause (‘throw stones at birds’) used as a complement of the verb ‘teach’ (compare to 18 for a transitive embedded verb with a controlled subject).

(27) *yāá é gbè dìnā́ lé klénè tálà yā bòlè mù klā*  
 3SG+COP RFL son teach PROG stone throw POST bird PL behind  
 ‘He is teaching his son how to throw stones at birds.’ (= ‘how one throws stones...’)

To summarize, the embedded clauses in Wan fall into two types with different syntactic structure. The contrast is manifested (with intransitive verbs only) by different position of the oblique argument (before the head of the embedded clause vs.

<sup>7</sup> In most cases, the preverbal expression of an oblique argument is obligatory or strongly preferred with intransitive verbs. Examples with optional preverbal obliques that I have in my data collection can be explained by variation in the transitivity of the verb. For example, (22) is acceptable for some speakers without a preverbal argument, as in (iii).

(iii) *yāá yrā́ mū é dìnā́ lé bitā́ yā plíŋ bálè lé*  
 3SG+COP children DEF teach PROG dance POST drum big on  
 ‘She is teaching the children to dance to (the sound of) a big drum.’

This is consistent with the fact that the verb *bitā́* ‘dance’ is composed of the stem of a transitive *tā́* ‘weave’ and the noun *bí* ‘dance’. Presumably, in (iii), the verb is analyzed as a combination of a transitive verb with its object, so that the preverbal position is occupied by the object and unavailable for the oblique.

after the finite verb). Matrix verbs that take embedded clauses with the canonical argument expression (the oblique argument appears after the finite verb) can be characterized as control verbs, or verbs of what can be called the “designated” control: the unexpressed subject of the embedded verb is referentially dependent on a nominal argument of the matrix verb and cannot receive a generic interpretation. Verbs that take embedded clauses with the non-canonical expression of arguments (the oblique argument of an intransitive verb appears preverbally) do not impose such a relation of referential dependence, and the subject of their verbal complement receives a generic interpretation (‘PRO<sub>arb</sub>’); this is illustrated by paraphrases of translations of the embedded clauses in (26) and (27).

In the following section I examine in more detail the syntactic properties of embedded clauses with the non-canonical configuration and propose an analysis that accounts for them. In particular, I propose to treat the embedded clauses with the non-canonical argument expression as a mixed category construction that combines in a rather unusual way syntactic properties of noun phrases and verb phrases.

#### **4. Syntactic properties of clauses with non-canonical argument realization**

##### **4.1. Nominal syntactic properties**

In the previous section I showed that two types of embedded clause can be distinguished in Wan. One has the canonical (O)V word order, while the other allows an oblique argument to be expressed preverbally with intransitive verbs. The two clause types can be distinguished only when headed by an intransitive verb. With transitive embedded verbs, the object is preverbal in both types of clause, and all postpositional phrases are placed at the end of the sentence. In other words, in clauses with the canonical word order, the preverbal position is restricted to the object of a transitive verb, and in clauses of the other type the verb can be preceded by an argument other than the object. In what follows I propose an analysis that treats the absence of a thematic restriction on the preverbal element as a *nominal* syntactic property of such clauses. Crucially, nominal heads and their possessive modifiers show a wider range of semantic relations than verbal heads and their objects. The latter typically stand in a fixed thematic relationship, while nominal modifiers often

show no such restriction (the range of notions expressed by nominal modifiers in Wan includes possession, location and time, material and source, etc.).

It is only possible to treat the relationship between the head and the preverbal argument in an embedded clause as nominal if the preverbal oblique argument indeed functions as a nominal modifier, not as a postpositional complement of the verb that for some reason appears preverbally rather than in its canonical postverbal position. In Wan, the prenominal element within an NP can only be a noun phrase, not a postpositional phrase (Nikitina 2008a). The claim that the syntactic relationship between the verb and the preverbal element in the embedded clause is similar to the relationship between a noun and its nominal modifier implies that this preverbal element must be syntactically a noun phrase, not a postpositional phrase (as in clauses with canonical argument expression). This claim predicts a difference between the category of the oblique argument expressed preverbally (nominal) and the category of the same argument when it is expressed postverbally in canonical clauses (postpositional phrase).

It is not a trivial matter, however, to distinguish a locative postpositional phrase from a noun phrase in Wan. Wan has two types of postposition that derive from different sources; I will refer to the two postpositional classes as *locative* vs. *functional*. Locative postpositions derive from relational nouns with locative meaning, so that the same form can function either as a noun or as a locative postposition (see Nikitina 2008b for details).

(28) Homophonous forms functioning as a noun and a postposition

NP *tā* ‘top/upper surface’ [[*yí tā*]<sub>NP</sub> *gòŋ*] ‘car of *water’s surface*’ (=‘boat’)

PP *tā* ‘on top of/above’ [*è*<sub>NP</sub> *ziā*<sub>VP</sub> [*yí tā*]<sub>PP</sub>] ‘he descended *onto the water*’

All oblique arguments in the examples discussed so far (22, 24, 26) were headed by such ambiguous forms, which could be analyzed either as locative postpositions or as relational nouns. Thus, none of the previous examples provides evidence for the syntactic category of the oblique argument, neither supporting nor challenging the treatment of the preverbal element of the embedded verb as a nominal modifier analogous to a possessor NP.

The historical source of the *functional* postpositions, which constitute the other class of postpositions in Wan, is not entirely clear. What distinguishes them as a class from the locative postpositions is the lack of categorial ambiguity. Phrases

marked by functional postpositions can only appear after the finite predicate, where they mark an oblique argument of a verb (main or embedded). Most importantly, functional postpositional phrases cannot appear in nominal syntactic positions. This could provide the crucial evidence for the syntactic category of the preverbal argument in the embedded clause: if the position is restricted to nouns, as in the case of a noun’s modifier, we would expect that an oblique argument could not appear in it when marked by a functional postposition. This prediction is summarized in (29).

(29) Syntactic positions available to arguments marked by the two types of postposition

Arguments marked by:	Postpositional syntactic functions	Nominal syntactic functions
locative postposition / noun	yes	yes
functional postposition	yes	no

In (30) an oblique argument (‘the bird’) of the finite verb *gà* ‘went’ is marked by the functional postposition *yā* ‘with’.

(30) *è gā bɔ̀lè é yā kɔ̀ŋ gó*  
 3SG.SBJ went **bird DEF with** village in  
 ‘She brought the bird into the village.’ [lit. ‘She *went with* the bird to the village.’]

Like all functional postpositions, the postposition *yā* ‘with’ marks oblique arguments in the postverbal position and is never found in nominal syntactic positions, such as the head of a noun phrase or a nominal modifier. Arguments that are normally marked with this class of postposition can be used as a test case for syntactic category (nominal vs. postpositional) of the preverbal element in the embedded clause.

The crucial evidence is provided by examples like (31). The embedded clause (‘go with oranges’) consists of a verb with an oblique argument in the preverbal position. The argument bears the same thematic relationship to the verb as in (30) above (‘go *with* x’), where the same argument is expressed in the canonical postverbal position, marked by a functional postposition. In the embedded clause in (31), however, it appears as a bare noun phrase without any postpositional marking. (In (31), ‘the daughter’ is the object of the verb *dìnà* ‘teach’, and the verbal complement of ‘teach’ (‘oranges go’) is introduced by the postposition *yā*, cf. 22.)

- |      |            |              |                |                  |                   |           |               |
|------|------------|--------------|----------------|------------------|-------------------|-----------|---------------|
|      | S          | O            | V              | [                |                   | ]         | PP            |
| (31) | <i>yāá</i> | <i>é nùŋ</i> | <i>dìnǎ lé</i> | <i>lōmlīŋ mù</i> | <i>(*yā) gâ</i>   | <i>yā</i> | <i>plē-lé</i> |
|      | 3SG+COP    | RFL daughter | teach PROG     | <b>orange</b> PL | <b>(*with) go</b> | POST      | market-at     |
- ‘She is teaching her daughter to carry oranges to the marketplace.’ [lit. ‘oranges-go’]

The contrast between (30) and (31), where the same type of argument is expressed as a PP postverbally but as an NP in the embedded clause, shows that the structural relationship between the verb and a preposed oblique argument is different from the relationship between the verb and the same argument in the canonical postverbal position. In my analysis, the details of which are spelled out in section 4.3, I propose to treat the relationship between the verbal head of this type of embedded clause and the preverbal NP as essentially nominal, i.e. as structurally identical to the relation between a noun and its nominal modifier. The fact that the preverbal element of the embedded clause indeed behaves like a noun phrase and not like a postpositional phrase supports this analysis.

#### 4.2. Verbal syntactic properties

Along with the nominal properties, clauses that allow for the preverbal expression of oblique arguments show some verbal characteristics. First of all, they are headed by lexical verbs in a non-derived form without a nominalizing suffix. The distribution of such embedded clauses is not different from the distribution of nonfinite clauses with the canonical expression of arguments in that both are selected as arguments by certain sets of matrix verbs. Furthermore, such clauses cannot modify nouns without being nominalized. This property is illustrated in (32), where the construction needs to be nominalized in order to be used NP-internally as a nominal modifier; the noun phrase in question is headed by the noun *gbè* ‘way’ and functions as the object of the verb *lā* ‘show’.

- |      |            |                           |            |              |              |             |               |
|------|------------|---------------------------|------------|--------------|--------------|-------------|---------------|
| (32) | <i>yāá</i> | <i>lōmlīŋ gâ-ŋ/*gâ</i>    | <i>gbè</i> | <i>lā lé</i> | <i>é nùŋ</i> | <i>lènŋ</i> | <i>plē-lé</i> |
|      | 3SG+COP    | <b>orange go-NMLZ/*go</b> | <b>way</b> | show PROG    | RFL daughter | to          | market-at     |
- ‘She is showing to her daughter how to carry oranges to the marketplace.’ [lit. ‘the way of carrying oranges’]

Finally, a typical noun, or a nominalized verb, can combine with more than one nominal modifier. In the embedded clause in (31), repeated below as (33), however, only one of the two oblique arguments of the verb appears in the preverbal position.

- (33) *yāá*            *é nùŋ*            *dìnà lé*            *lōmlīŋ mù gà*    *yā*    *plē-lé*  
           3SG+COP    RFL daughter teach PROG    **orange PL go**    POST    market-at  
           ‘She is teaching her daughter to carry oranges to the marketplace.’ [lit. ‘oranges-go’]

All postpositional arguments that are not expressed in the preverbal position (in (33), the goal phrase) are extraposed from the embedded clause to the end of the sentence, just like postpositional arguments of verbs embedded in clauses with the canonical argument realization. The fact that at least some arguments of the embedded verb must be expressed in the same position as arguments of finite verbs (extraposed to the end of the sentence) points to the partially verbal character of the clause.

#### 4.3. Embedded clauses with preverbal obliques as mixed categories

In the previous sections I argued that the construction allowing for the preverbal expression of oblique arguments combines nominal and verbal syntactic properties. Nominal properties characterize the internal composition of the construction, i.e. the principles of combination of the head with its dependents. Among such nominal properties, I mentioned the broad range of possible semantic relations between the head and its dependent, as well as the non-occurrence of functional postpositions that mark oblique arguments of verbs in canonical clauses.

At the same time, the construction’s distribution is similar to that of verb phrases, and its head is clearly a verb, since it must attach a nominalizing suffix when the clause is used in nominal functions. This suggests that the clauses allowing for the preverbal expression of oblique arguments can be analyzed as a mixed category—a construction that combines syntactic properties of two distinct categories, but has a single lexical head. Widely discussed instances of mixed categories are nominalizations and participles that have the distribution of nouns or adjectives, but at the same time retain some verbal characteristics (Bresnan 1997, Bresnan and Mugane 2006, Malouf 2000, Lefebvre and Muysken 1987, Zucchi 1993; an early discussion of the “hybrid” nature of nominalizations can be found in Comrie 1976, Comrie and Thompson 1985; for typological studies of nominalization, see Koptjevskaja-Tamm

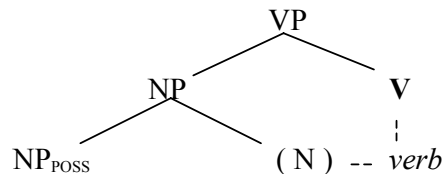
1993, 2003, Malchukov 2004). Syntactically, mixed categories can be analyzed as constructions that consist of two distinct syntactic units, one embedded in the other. The external category of the construction (for nominalizations, an NP) characterizes the construction's syntactic distribution, and the embedded category (the VP) determines the construction's internal structure. The construction is headed by a single word that instantiates both syntactic units in the structure.

The structure of regular noun phrases and regular verb phrases in Wan is represented in (34). Nominal heads impose no restriction on the thematic role of their modifier, while the preverbal position within the VP is restricted to objects of transitive verbs (i.e., to no more than one thematic role from the list of the given verb's arguments). Embedded clauses with the canonical argument realization (discussed in section 3.1) can be characterized as regular verb phrases, and their preverbal position is restricted to objects (I ignore for the moment verbs selecting for nonfinite clauses, as such nonfinite complements behave in exactly the same way as objects of transitive verbs).



Embedded clauses with the non-canonical argument realization have a different structure. They are better analyzed as mixed category constructions, which combine the internal structure of a noun phrase with the external distribution of a verb phrase, as in (35).

(35) The mixed structure of the internally nominal embedded clause in Wan



Besides capturing the fact that the preverbal position is not restricted in such clauses to objects of transitive verbs, the structure in (35) explains the uniqueness of the preverbal argument (discussed at the end of section 4.2). The preverbal position is occupied by exactly one element, all others being expressed in a “verbal” (canonical) way, i.e. following the finite verb.

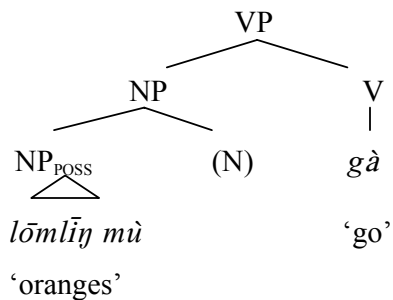
The choice of the argument that will occupy the position of the NP modifier in (35) seems to be based on the relative prominence of arguments in the argument

structure. With transitive verbs, this position is reserved for the object; with intransitives, it is available to exactly one oblique argument. On the other hand, the fact that with transitive verbs the preverbal position is restricted to objects may also follow from a more general constraint on object drop: in Wan, a transitive verb virtually never appears without an object, even if the object is semantically “empty” (such as *pɔ̃* ‘thing’). Since objects – unlike oblique arguments – cannot be extraposed from the VP, they invariably occupy the position preceding the verb that selects for them.

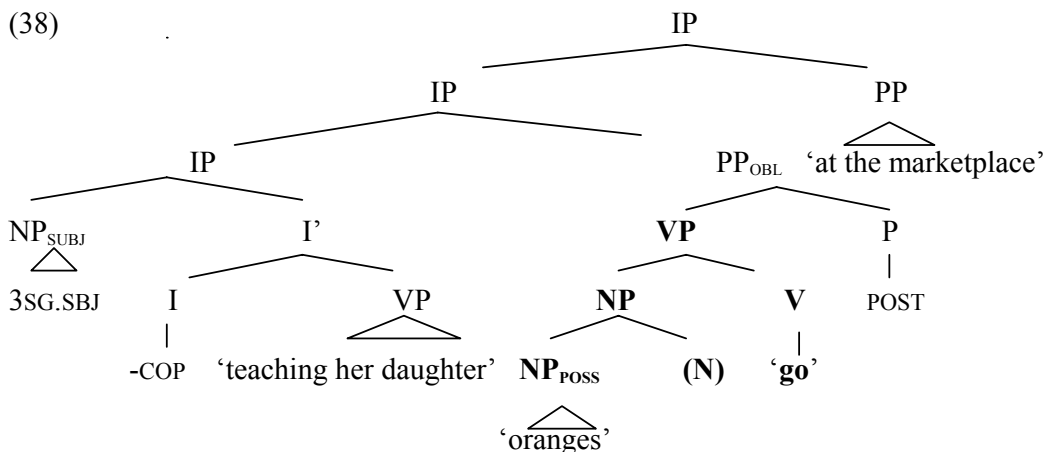
In (37) I illustrate this analysis for the embedded clause (in bold) in (31), repeated below as (36).

- (36) *yāá*      *é nùŋ*      *dìnǎ lé*      ***lōmlīŋ mù gâ***      *yā*      *plē-lé*  
 3SG+COP    RFL daughter teach PROG    **orange PL go**    POST    market-at  
 ‘She is teaching her daughter to carry oranges to the marketplace.’ [lit. ‘oranges-go’]

(37) Mixed category analysis



The structure in (38) represents the syntactic structure of the entire sentence; the internally nominal embedded clause is in bold. The progressive verb within the I’ (‘teach’) selects for a verbal complement, which is marked by the postposition *yā*. The object of this postposition is an embedded clause with mixed syntactic properties.



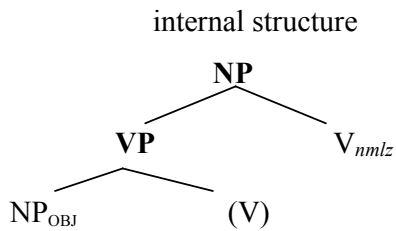
The sentence is in the progressive aspect, which is formed periphrastically by marking the verb phrase by the postposition *lé* ‘at’. The postpositionally marked verb phrase is introduced by an auxiliary verb ‘be’ (lit. ‘be at teaching her daughter’, where the postpositional element expresses the tense value). A special progressive set of subject pronouns derives from fusion of the subject pronoun form with the auxiliary. I am simplifying this in my syntactic tree by assuming that the auxiliary is overtly present.

The mixed structure of the embedded clause in Wan differs in an interesting way from the structure of a typical nominalization. Although it is composed of the same categories (one verbal and one nominal) as a nominalization, the relation between the categories is “inverted”: the embedded clause is verbal “from the outside” and nominal “on the inside”. I briefly review the difference between the two types of mixed category in the next section.

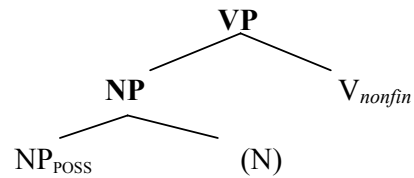
##### **5. Internally nominal clause vs. internally verbal nominalization**

In the linguistic literature discussions of mixed categories tend to focus on syntactic properties associated with lexical classes defined in morphological terms, most often with nominalized verbs. The embedded clauses with nominal properties found in Wan are an unusual example of a mixed category with no morphological exponent. Not only is the verb heading such clauses not nominalized overtly (which would be compatible with a zero-derivation analysis), but the distribution of this type of clause is also verbal and not different from that of embedded clauses with the canonical (O)V order. Nominalization with verbal internal structure and the internally nominal clause of Wan instantiate the two logically possible types of a mixed category that combines verbal and nominal properties. I represent the two types in (39). Nominalization combines verbal internal structure with a nominal distribution. The internally nominal clause combines a nominal internal structure with a verbal distribution.

(39) (a) Nominalization with verbal



(b) Internally nominal clause<sup>8</sup>



The structure of the internally nominal embedded clause is unusual in that its mixed syntactic properties cannot be derived from the class-changing morphology of its lexical head (cf. Haspelmath 1995, Bresnan 1997 on the relation between mixed syntax and complex morphological structure). The head of (39b) is a morphologically simple nonfinite verb, suggesting that the mixed syntactic properties cannot in this case be derived from the morphology of the head.

The internally nominal embedded clauses of Wan also do not support the view expressed in Spencer (2005), where it is suggested that “[i]t only makes sense to talk of ‘mixing’ when the language marks lexical class membership by some morphological means, for instance, where the set of inflections on nouns is distinct from the set of inflection on verbs. In so-called ‘isolating languages’ it is common for a single word to have the syntax of a noun or a verb indiscriminately, but arguably we are better talking of categorical indeterminacy here rather than mixing.” (96-7). As I already discussed in section 2.2, the lexical indeterminacy analysis alone does not account for the rich inventory of distinct syntactic constructions in a language like Wan, where each type of construction (verb phrases, nominalized clauses, and the internally nominal embedded clauses) has a unique distribution.

The isolating structure of Wan largely restricts the range of arguments that can be used to support the mixed category analysis of the embedded clauses with non-canonical structure. Case marking of arguments (genitive vs. accusative) cannot be used as evidence for the nominal or verbal structure, and the distinction between adjectives and adverbs is in general inapplicable, since typical manner adverbials are formed as postpositional phrases. In spite of the lack of morphological evidence, the

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<sup>8</sup> Borsley and Kornfilt (2000) describe a hypothetical type of a mixed extended projection “in which a noun is associated with one or more verbal functional categories that give a verbal periphery to a basically nominal construction” (125), but their evidence as to whether such structures exist is inconclusive. Other instances of internally nominal clauses, namely, infinitives assigning genitive case, are discussed in Nikitina (2008a).

distributional facts discussed in this paper still have to be explained, and the mixed category accounts for them in a straightforward way.<sup>9</sup>

What could explain the nominal internal syntax of underived verbs in this unusual construction? The explanation seems to lie in the historical development of the Mande verb. Although in Wan and in many other present-day Mande languages the distribution of verbs is clearly different from the distribution of nouns (Brauner 1973 for Bambara; Welmers 1969: 73 for Kpelle; Blecke 1996 for Bozo; Tröbs 1998 for Jeli, among many others), the verb in Mande has a large number of morphosyntactic properties that make it in many ways similar to a noun. As I discussed in section 2, the syntactic structure of the verbal projection is reduced in Mande compared to other Niger-Congo languages. The only nominal element that forms a syntactic constituent with the verb is the object, and all postpositional arguments are extraposed to the end of the sentence. Furthermore, Creissels (2005) observes that Mande languages in general lack the double object construction, which also points to the highly restricted nature of the verbal syntactic constituent. Finally, a number of Mande languages, including some dialects of Bambara, do not allow their verbs to function as finite predicates and instead require the use of auxiliaries in all clause types (Kastenholz 2003). All this evidence suggests that the Mande verbal syntax has developed under a strong influence of nominal constructions (Claudi 1994, Nikitina 2008a; see also Heine and Reh 1984: 213 on the Mande verb as a hybrid category). The internally nominal embedded clause could represent a remnant of the earlier syntax of the nonfinite verb that was preserved in Wan in only one semantically distinct context – in clauses with generic subjects.

The use of the unusual mixed category construction is restricted to a special type of embedded clause, which can be defined in terms of the referential properties of its unexpressed subject. Unlike the referentially dependent subjects of the “canonical” clauses, which describe propositions with uniquely identifiable participants (“designated control”), the subjects of the internally nominal clauses are

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<sup>9</sup> The embedded clause in question cannot be analyzed as a morphologically unmarked applicative form, since this explanation does not account for the construction’s distribution. The construction appears with a restricted set of matrix verbs, which are characterized by a common semantic property, the type of control relation they impose on their complement’s subject. Although this property is known to affect the syntactic structure of the complement in other languages (see footnote 11), the connection between control and the use of applicative constructions is unclear. Moreover, applicative constructions are unusual in Mande and not attested in Wan. Similarly, the construction cannot be a compound, since the preverbal NP can be marked with the plural and definite marker (as in 24 and 36), modified by an adjective, etc.

interpreted generically. This type of clause is often associated with infinitival or nominalized forms of the verb in other languages.<sup>10</sup> In Wan, the difference between clauses with a “designated” subject and clauses with a generic subject is reflected in the syntactic configuration of the phrase (regular VP vs. the internally nominal embedded clause).<sup>11</sup>

## 6. Conclusion

I proposed to analyze a subset of embedded clauses in Wan as a mixed category construction that combines in a particular way verbal and nominal syntactic properties. The mixed category analysis relies on the syntactic properties of constructions and presents an alternative to the lexical indeterminacy approach, which explains the apparent mismatch between morphology and syntax by eliminating entirely the distinction between the lexical classes of noun and verb. Even though in Wan certain types of syntactic constructions do not fit neatly into the nominal/verbal distinction, they cannot be assumed to be headed by words that are underspecified for their lexical category, and contrary to the assumption that is often implicit and sometimes explicit in the studies of Mande languages, the syntactic behavior of nouns and verbs is not indistinguishable (cf. Bearth 1995: 111-2). The analysis proposed here is an attempt at a formalization that would preserve the distinction between the lexical classes of noun and verb, at the same time accounting for certain overlaps in their syntactic properties.

Since Wan is an isolating language, the major evidence for the mixed syntax of the embedded clause in question comes from its distribution and the order and syntactic category of its elements. Although in research on mixed category constructions morphological evidence is often given priority, there is no reason to

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<sup>10</sup> In functional terms, mixed categories can be analyzed as arising from a mismatch between the syntactic category imposed on the argument by an external predicate and the semantic content of that argument, or a mismatch between structural selection and semantic selection (Grimshaw 1979, 1981). Thus, typical nominalizations are NPs referring to events (Hopper and Thompson 1984: 744-7; Chierchia 1982). Internally nominal clauses are VPs referring to kinds of event, or events with unspecified subjects.

<sup>11</sup> A similar distinction seems to be relevant in the choice of a mixed category construction in Tagalog, where, according to Comrie and Thompson (1985: 384), “the nominalization takes a different form when the subject is expressed than when it is not.” In particular, “nominalizing the ‘basic’ (i.e., aspectless) form of a verb yields an abstract noun which cannot be particularized with an expressed subject” (see also Schachter and Otanes 1972: 154-9). Further research is needed to determine whether the structure of Tagalog nominalization is sensitive to the same distinction as embedded clauses in Wan.

ignore morphologically unmarked instances of category mixing. Unlike in typical instances of nominalization, the head of the internally nominal embedded clause in Wan is morphologically simple and the mixed syntactic properties do not correspond to any class-changing morphology of the head. I suggested that this unusual type of construction is a remnant of the earlier syntax of nonfinite verbs, which has been preserved in only one semantically distinct construction type – the embedded clauses with generic subjects, which can be characterized semantically as the most “nominal” type of clause.

### **Abbreviations**

CONJ	conjunction
COP	copula
DEF	definite marker
NEG	negation
NMLZ	nominalizer
PL	plural marker
POST	postposition introducing an embedded clause
PROG	marker of the progressive aspect
PRT	particle
RFL	reflexive pronoun
SBJ	subject pronoun

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