The function and form of action nominalization in Wan

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Nominalization plays a very prominent role in the grammar of Wan (Southeastern Mande, Côte d'Ivoire). Action nominalizations appear in a number of contexts that correspond to constructions with subordinate clauses in English, French, or Russian. In addition, several types of productive action nominalization, both morphological and syntactic, co-exist in the language, and can sometimes be used in very similar contexts depending on subtle nuances of interpretation and syntactic environment.

One goal of this paper is to illustrate the variety of functions that can be associated with action nominalization in a language that makes little or no use of syntactic subordination. The other is to present an account of the distribution of the various types of productive action nominalization in Wan, showing how the choice of a particular type is determined by a combination of syntactic and semantic factors.

## 1.	The range of functions

The wide use of nominalization in Wan correlates with the general lack of hypotaxis, or subordination in the narrow sense: while embedded clauses may contain non-finite verbs, subordination of finite verbs is in general dispreferred. As a result, deverbal nominalization appears to correspond functionally to the use of subordination in a typical Indo-European language, and deverbal nouns often occur in contexts where either non-finite verbs or subordinate clauses appear in a language like English or French. The examples below illustrate some of such uses, classified according to the type of their translation equivalent in English. (Note that this paper only treats action nominalization, i.e. deverbal nouns that refer to actions/events as a whole rather than to individual event participants.)

(1)	a.	Temporal clauses:

*ā̀	gà	ŋ̀	klá	é	lé*

3PL	went	1SG	arrive	NMLZ	after

'They left after I arrived.' (Lit., 'They left after my arrival.')

b.	'That' clauses:

*nā̀ā̀	bḕnì lé	ŋ̀	siá-wà	zàgó*

1SG+COP	fear PROG	1SG	fall-NMLZ	because

'I am afraid that I may fall.' (Lit., 'I fear because of my falling')

c. 'When' clauses:

lāā	*gɔ̀lí*	*bɛ́-wà*	*é*	*sɔ́-ŋ*		*ŋ̀*	*lèŋ*	*ɔ̌*
2SG.ALN	money	ask-NMLZ	DEF	please-NEG		1SG	to	NEG

'I don't like it when you ask [me] for money.'

(Lit., 'Your asking money does not please me.')

d. 'Whether' clauses:

lāā	*blú*	*lú-wà*	*é*	*nə̀ə̌*	*gó-tɔ́*	*ɔ́*
2SG.ALN	bread	buy-NMLZ	DEF	1SG+3SG	know	NEG

'I didn't know whether you bought bread.'

(Lit., 'Your buying of bread, I did not know of it.')

e. Small clauses:

ŋ̀	*mī*	*wiá-ŋ*		*éŋ*	*mɔ̄*
1SG	someone	enter-ATTR.NMLZ		sound	heard

kú	*é*	*wā*
house	DEF	under

'I heard someone enter the house.'

(Lit., 'I heard the sound of someone's entering under the house.')

f 'How to' clauses:

yāá	*ú*	*wò-ŋ*		*gbè*	*lá*	*lé*	*é*	*gbè*	*lèŋ*
3SG+COP	wine	make-ATTR.NMLZ		manner	show	PROG		REFL	son	to

'He is showing to his son how make wine.'

(Lit., 'He is showing to his son the way of making wine.')

g. Relative clauses:

ŋ̀	*zò-ŋ*		*kɔ̄ŋ*	*é*	*mɑ̌*
1SG	come-ATTR.NMLZ		village	DEF	PRES

'That's the village from which I am coming.'

(Lit., 'That's the village of my coming.')

Each of the examples in (1) involves one of the three types of productive action nominalization. In (1a), the verb is turned into a noun by adding the free-standing nominalizer *é*; the nominalization is used as an argument of the postposition *lé* 'after' to describe the temporal relation between two events. Examples (1b-c) illustrate the use of morphological nominalization: the deverbal nouns are derived by adding the suffix *-wa* to the verb's stem; the nominalization appears in syntactic positions associated with nouns – the argument of the postposition *zà-gó* 'because of, due to' in (1b), the subject argument in (1c), the fronted object argument in (1d). Finally, examples (1e-g) contain a form that can be described as "attributive nominalization"; this type of deverbal noun is derived from the verb by adding the suffix *-ŋ* and appears within possessive constructions, in the position of a syntactic dependent of a

nominal head: in (1e-f), it functions as an argument of the relational nouns *éŋ* 'sound' and *gbɛ̀* 'manner', respectively; in (1g), it modifies the free noun *kɔ̄ŋ* 'village'. The three types are discussed in more detail in the following sections, where I attempt to account for their seemingly random distribution, as well as summarize their argument realization properties.

2.   Types of action nominalization
2.1.   Two types of nominalizing suffix

The nominalizing suffixes *-wa* and *-ŋ* attach directly to the verb stem. The suffix *-wa* is a general marker that not only derives action nouns from verbs, but also participates in the derivation of nouns referring to abstract properties from adjectives and other nouns. For example, the abstract nouns *cìnì-wà* 'beauty' and *ɓálè-wà* 'greatness' are derived from the adjectives *cìnì* 'pretty, beautiful' and *ɓálè* 'big, great', respectively. Deverbal nouns derived by this suffix are commonly lexicalized as abstract nouns and do not need to have an event interpretation, cf. *bɛ̀nì-wà* 'fear', *blà-wà* 'burial', *glò-wà* 'marriage', *kɔ́gɔ̀-wà* 'fight', etc. Deverbal nouns in *-wa* are often lexicalized to the extent of becoming barely analyzable as bi-morphemic.

Nominalizations in *-wa* appear in all argument positions. Their external syntax is unambiguously nominal; for example, they can (but need not) be marked by the definite marker *é*, as in (1c-d), or combine with possessive NPs, as in (1c), repeated below as (2); cf. also (1d).

(2) *lāā   gɔ̀lí   bɛ́-wà   é   sɔ́-ŋ   ŋ̀   lèŋ   ɔ́*
     2SG.ALN   money   ask-NMLZ DEF please-NEG   1SG   to   NEG
     'I don't like it when you ask [me] for money.'

The suffix *-ŋ* derives attributive nominalizations from verbs. Attributive nominalizations can only appear within possessive constructions, as dependents of a head noun, which can be either free or relational. As a result, nominalizations in *-ŋ* are rarely lexicalized as independent nouns but are often part of a compound, as in (3), which conventionally refers to food (and cannot refer, e.g., to a spoon), suggesting that it has been lexicalized to a certain degree.

(3) *lɔ́-ŋ   pɔ̄*   'food' (lit., 'thing of/for eating')
     eat-ATTR.NMLZ   thing

Just like the nominalization in *-wa*, the forms in *-ŋ* have nominal syntax, and in particular, combine with possessor noun phrases. This is illustrated in (4a,b), where the deverbal noun is derived from an intransitive nominalized verb *wiá* 'enter', which normally marks the goal argument with a spatial postposition (4a). The nominalized form in (4b), however, is preceded by a bare noun *làklù* 'school', which can only be analyzed as a possessor noun phrase.

(4) a. è   *wiā*   *làklù*   *gó*
       3SG entered school   in
       'He entered school.'

    b. [[*làklù*   *wiá-ŋ*]NP   *yɛ̄*]NP   *é*   *ɓō*
         school enter-ATTR.NMLZ time   DEF arrived
       'The time has come to enroll in school.'

The table in (5) summarizes the general properties of the two morphological nominalizations. Their syntax is discussed in more detail in Section 3.

(5)   Summary of the properties of morphological nominalizations

|	*-wa*	*-ŋ*
function	derives nouns from verbs, adjectives, and other nouns	derives nouns from verbs only
distribution	all nominal positions	noun-phrase-internal positions of dependents of a head noun
lexicalization	commonly lexicalized	occasionally lexicalized as part of a Noun+Noun compound

2.2. Free-standing nominalizer

Along with the two nominalizing suffixes, Wan makes use of a nominalizing construction that does not have a lexically derived nominal head. This construction consists of a combination of a non-finite verb and the marker *é*; the construction as a whole behaves syntactically as a noun and can occur in all argument positions. In the examples below (6a is repeated from 1a), the verb nominalized in this way functions as the object of a postposition.

(6) a. *à̰* *gà*   *ŋ̀* *klá*   *é*   *lé*
       3PL went   1SG arrive NMLZ   after
       'They left after I arrived.' (Lit., 'They left after my arrival.')

    b. *è* *ŋ̀* *yró-ŋ* *yɛ̄-gó-gà*   *é*   *mḭ̀* *ɔ́*
       3SG 1SG call-NEG bush-inside-go NMLZ   at   NEG
       'He does not invite me for a hunt.'

The free-standing nominalizer is homophonous with the definite marker, and most likely derives from it historically. There are, however, strong reasons to believe that synchronically, the nominalizer functions as an independent marker, and the construction in (6a,b) cannot be satisfactorily analyzed simply as a combination of a zero-derived noun (homophonous with the non-finite form of the verb) and a definite marker. First of all, if non-finite verb forms could function as nouns, one would

expect them to be occasionally lexicalized, resulting in pairs of homophonous action nouns and verbs. Such pairs are surprisingly rare in Wan, suggesting that nouns cannot be derived from verbs by zero-affixation. Secondly, the definite marker *é* is never obligatory with regular nouns or morphological nominalizations and only appears when the noun is either definite or specific (cf., e.g., 1b vs. 1c). In the nominalizing construction, however, the marker cannot be omitted even in contexts where the action noun is neither definite nor specific (as, e.g., in 6b). This property can be explained on the view that in the case of the nominalization, the presence of the "definite marker" is not semantically motivated but rather serves the purpose of turning a verb into a noun, i.e. the nominalizer is only related to the definite marker historically but is used independently of its original function at the synchronic level.

In light of this evidence, I will treat the nominalization in (6a,b) as a combination of a non-finite verb and a free-standing nominalizer, which can be assumed to function syntactically as a non-projecting "small word" adjoined to the verbal head. The structure in (7) accounts for the obligatory presence of the definite marker in all contexts where a verb is used in nominal positions. Since the nominalization does not involve any lexical derivation, it is also predicted not to be lexicalized as a regular noun; and indeed, nominalizations of this type never show any indication of lexicalization in Wan.

(7)

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            N
          /   \
         V     NMLZ
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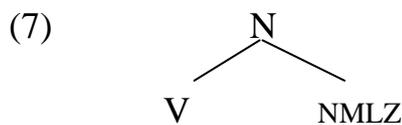
The structure makes a further prediction that the syntax of verbs nominalized by the free-standing marker should be identical to the syntax of morphological nominalizations (both are of category N); in particular, that neither should be able to take an object or combine with a subject. Rather, both types of nominalization should behave as relational nouns in requiring exactly one possessor argument (an "inalienable" possessor) and allowing for optional additional noun-phrase modifiers (realized as "alienable" possessors). This prediction is borne out by examples like (1a), repeated below as (8), where the nominalization combines with an inalienable possessor, as if it were a simple relational noun. (The distinction between inalienable and alienable possessive construction is encoded in the form of the possessive pronoun: inalienable possessors are realized by basic pronominal forms, which are also used as objects of verbs and arguments of postpositions, whereas alienable possessors are realized by a specialized set of possessive pronominals).

(8)　*ā̀　gà　　ŋ̀　klá　é　　lé*
　　3PL　went　1SG　arrive　NMLZ　after
　　'They left after I arrived.' (Lit., 'They left after my arrival.')

In addition, all three kinds of nominalization behave in the same way with respect to other aspects of their argument realization. This is discussed in more detail in Section 4.

3.   Semantic and semantic factors in the distribution of nominalization types

3.1.   Lexical category of the head

The attributive nominalization, illustrated in (1e-g) and (4b), is relatively unusual from the cross-linguistic point of view, as it is restricted to the syntactic position of a dependent of another noun. It can only appear in two types of possessive construction. On the one hand, attributive nominalizations function as arguments of a wide variety of relational nouns, such as *yɛ̄* 'time' (4b), *éŋ* 'sound' (1e), *gbɛ̀* 'manner' (1f), *zɛ̄* 'fact' (9a), *zà* 'matter, action' (9b), etc.

(9)   a. *lāā   blú   lú-ŋ   zɛ̄   é   nɔ̃̄nī̄   ŋ̀   káò*

       2SG.ALNbread   buy-ATTR.NMLZ   fact   DEF   got.lost   1SG   inside

         'I forgot that you bought bread.'

         (Lit., 'The fact of your buying of bread got lost to me.')

    b. *pólì̀-ŋ   zà   á   kú   é   káò*

       clean-ATTR.NMLZ   matter   COP   house   DEF   inside

       'The house needs cleaning.' (Lit., 'There is a matter of cleaning in the

   house.')

On the other hand, attributive nominalization can modify free nouns in a construction that is somewhat reminiscent of relativization in a language like English, since the head noun is typically construed as an argument of the nominalized verb. Thus, the head noun corresponds to the instrument of the action described by the nominalization in (10a-c), to the goal of motion in (10d), and to the patient/theme in (10e).

(10) a.   *à   tɛ́-ŋ   yrɛ́*

      3SG   beat-ATTR.NMLZ   stick

   'drum stick' ('stick to beat [it/smth.] with')

    b.   *kú   lēló-ŋ   pɔ̄*

      house   open-ATTR.NMLZ   thing

   'key' ('thing to open house with')

    c.   *srɛ̃́ŋlɔ̀-ŋ   pɔ̄*   'toy' ('thing to play with')

      play-ATTR.NMLZ   thing

    d.   *ŋ̀   gà-ŋ   kɔ̄ŋ*   'the village to which I am going'

      1SG   go-ATTR.NMLZ village

    e.   *gɔ̃̀-ŋ   wì̀*   'meat for sale'

      sell-ATTR.NMLZ   meat

Remarkably, the use of the attributive nominalization is determined by the syntactic position in which the action noun appears (more precisely, the lexical category of the head), not by the action noun's interpretation. Attributive nominalizations are often interchangeable with other kinds of deverbal nouns, provided that the deverbal noun is substituted directly for the head noun of the entire construction, not just for the possessor noun phrase. This interchangeability is illustrated in (11)-(12) below, where the construction with the attributive nominalization in (11) ('the matter of dancing of this dance') corresponds to a nominalization in *-wa* in (12) ('your asking of money').

(11) ɓí   kɛ̄ é   tã̀-ŋ   zà   sɔ́-á

    dance   this DEF dance-ATTR.NMLZ matter   please-STAT.PERF

    ŋ̀   lɛ̀ŋ

    1SG to

'I like to dance this dance' (Lit., 'The matter of dancing that dance pleases me.')

(12) lāā   gɔ̀lí   ɓɛ́-wà é   sɔ́-ŋ   ŋ̀   lɛ̀ŋ ɔ̄́

    2SG.ALN money   ask-NMLZ DEF please-NEG   1SG to   NEG

    'I don't like it when you ask [me] for money.'

    (Lit., 'Your asking money does not please me.')

The two types of nominalization in (11)-(12) are involved in the encoding of the same argument of the same verb; but while in (12), the nominalization in *-wa* functions as the head of the noun phrase, the attributive nominalization in (11) is a dependent of the head noun *zà* 'matter'.

It is unclear how the attributive nominalization developed in Wan. Cross-linguistically, nominalization is often related to the encoding of possessors and relative clauses (see, e.g., Noonan 1997 and references therein, esp. Matisoff 1972), and it would be natural to try to explain the peculiar syntactic distribution of the attributive nominalization in Wan by a historical connection with relative clauses. Just like relative clauses, the attributive nominalization modifies nominal heads but cannot be used in other syntactic environments, such as in argument positions. This explanation, however, is hardly applicable in the case of Wan, due to the absence of relative clauses that would not only precede the nominal head but at the same time contain a verb with a special relativizing marker. This relativization strategy is not attested in Wan and is in general not common in Mande (Grégoire 1980; Perekhvalskaya 2007; cf., however, Vydrin 2007 for the case of Dan-Gwèètaa, where the verb in the preposed relative clause is sometimes marked by tonal modification). Moreover, while relativizers tend to introduce verb phrases or clauses, the attributive nominalization in Wan behaves as a relational noun in all relevant respects and has unambiguously nominal syntax. This additional complication makes the historical

connection between the nominalizer and the hypothetical (unattested) marker of relative clauses doubtful (albeit not implausible).

It is remarkable that the marker -*ŋ* derives a special non-finite form of the verb that is used in the prospective construction (Nikitina 2007), as well as in the purpose construction. This suggests that both this marker and the marker of attributive nominalization could originally derive from the same form and are most likely related to the relational noun *nɛ̌* 'place' (which can still be used in the purpose construction as an alternative to the form in -*ŋ*). While nominalizations are commonly related to particular tense/aspect forms in other languages, it is not typical for them to be restricted to the attributive function. Neither can the attributive nominalization in Wan be described as some kind of participle, since it is clearly not adjectival. Unlike adjectives, which invariably follow the head noun, the attributive nominalization must precede the head, suggesting that it should be analyzed as a noun. Hence, there remains the question of why this type of noun cannot be used in argument positions.

I have to conclude that the question of the historical origin of the attributive nominalization in Wan cannot be resolved at present. As I hope to have shown, however, the restriction on its syntactic position justifies treating it as a special type of nominalization that is sensitive to the lexical category of the construction's head.

3.2. Specific vs. generic interpretation

The other two types of action nominalization – the morphological nominalization in -*wa* and the nominalization derived by adding the free-standing marker *é* – are used in syntactic positions other than that of a dependent of a nominal head; in particular, they occur in all argument positions. The distribution of these two types seems to be determined entirely by semantic factors; more specifically, the free-standing nominalizer is preferred in descriptions of specific events, while the nominalization in -*wa* is associated with reference to event types and events that are regular or hypothetical. For example, the free-standing nominalizer appears in descriptions of specific events that took place in the past (13a), especially when such events serve as reference points in temporal expressions (1a, 13b).

(13) a. *àà   bēŋtā   gà é   wō é   zrā̀ yā*
      3SG.ALN travel   go NMLZ   did PRT good with
      'His travel went well.' (Lit., 'His travel-going did well.')

   b. *è   gā gblǎ̀ŋ   kpègè   é   bīgó*
      3SG went thunder   explode NMLZ   after
'He left after the thunderstorm.' (Lit., 'He left after the exploding of thunder.')

The nominalization in -*wa*, on the other hand, commonly describes actions/event types without making reference to any specific occurrence, as in (14a-c).

(14) a.   *lē   kɔ̄ŋ cɔ̄ŋ   gà-wà   lá   lé   éé   nɛ̀̄*
         woman   village distant   go-NMLZ   show   PROG   REFL.ALN child
         é   lɛ̀ŋ
         DEF   to
         'The woman is showing to her child how to go to a distant village.' (Lit.,
      'The woman is showing to her child the going of a distant village.')

     b.   *è   ŋ   dɪ̱nā̰   kālɛ̄   gó yí-wà   yā*
         3SG 1SG make.used   forest   in   spend.night-NMLZ   with
         'He made me used to spending nights in the forest.'

     c.   *ɓé pé-wà   á   é   kpālɛ̄   yā*
         that tell-NMLZ COP PRT difficult   with
         'It is difficult to say that.'

     The distinction between the two semantic types is not always clear-cut, and some contexts allow for both types of nominalization, depending on subtle nuances of interpretation, cf. the difference between (15a) and (15b).

(15) a.   *lā zò-wà   é,   nɛ̰̀ɛ̰̄   gò-tɔ́   ɔ́*
         2SG come-NMLZ   DEF 1SG+3SG know   NEG
         'I wasn't aware of your arrival (whether you arrived).'

     b.   *lā zò   é,   ŋ   ɓé gòtɔ́   ɔ́*
         2SG come   DEF 1SG that know   NEG
         'I didn't know that you arrived.' ('The fact of your arrival was unknown to
me.')

4. Argument realization with action nominalizations

     In this final section, I summarize argument realization properties of action nominalizations in Wan; a more detailed discussion can be found in Nikitina (2008). The three types of action nominalization have identical syntax. In particular, they all behave as relational nouns and require one argument to be realized in the inalienable possessor construction. The example below illustrates that one argument of the nominalization (here, the argument corresponding to the verb's subject) is expressed as an inalienable possessor.

(16) *à   zò-ŋ   gbɛ̀*   'the manner of his arrival'
     3SG come-ATTR.NMLZ   manner

     Whenever more than one argument is realized with a deverbal noun, the additional arguments are encoded as modifiers in the alienable possessor construction. In (17), where the nominalization is associated with two arguments (one corresponds to the verb's object, the other to its subject), the external argument is realized by an alienable possessor pronoun.

(17) *àà   pɔ̄ lɔ́-ŋ   gbὲ*   'the manner of his eating'
      3SG.ALN   thing eat-ATTR.NMLZ manner

Although the examples above illustrate argument realization with the attributive nominalization, the same pattern is found with the other two nominalization types; cf. 1a,b,g, 10a,d, 15a,b vs. 1c,d, .9a; 12, 13a.

The set of arguments that can be realized in the possessive constructions (either as alienable or as inalienable possessors) includes, besides those corresponding to the verb's subject and object, arguments realized in postpositional phrases with verbs. This is illustrated in (18b) below, repeated from (14a), where the argument corresponding to the postpositional phrase in (18a) is realized as a possessor.

(18) a.   *è   gā   kɔ̄ŋ   cɔ̄̃ŋ   gó*
          3SG went village   distant   in
          'She went to a distant village.'

      b. *lē   kɔ̄ŋ   cɔ̄̃ŋ   gà-wà   lá   lé   éé*
          woman   village   distant   go-NMLZ show   PROG   REFL.ALN
          nὲ̃   é   lὲŋ
          child DEF to
              'The woman is showing to her child how to go to a distant village.' (Lit.,
          'The woman is showing to her child the going of a distant village.')

One typologically unusual characteristic of nominalization in Wan (shared by a number of other Mande languages) is the optional realization of oblique arguments as postpositional phrases adjoined to the entire finite clause. The restriction on the placement of postpositional phrases results in the non-local realization of the nominalization's arguments: the nominalization is separated from its postpositional argument and cannot appear next to it (see Nikitina 2008 for a more detailed discussion). In (19), the postpositional phrase 'with dogs', although associated with *wì-tɛ* 'hunt', appears after the main verb.

(19) *yāá   wìtέ-ŋ   gbὲ   lá   lé   gbā̃nέ̃ mū*
      3SG+COP hunt-ATTR.NMLZ   manner   show   PROG   dog   PL
      yā   é   gbὲ lὲŋ
      with REFL son   to
      'He is showing to his son the way of hunting with dogs.'

5.   Conclusion

This paper described the use of action nominalization in Wan, a language that often resorts to the nominalization strategy in contexts where English and French require an infinitival or a subordinate finite clause. I summarized the major characteristics of the three productive nominalization types, which are distributed according to syntactic and semantic factors. Perhaps most remarkable among them is

the special form of attributive nominalization in -ŋ, which only appears in the position of a dependent of another noun. The diachronic development of this relatively unusual nominalization requires further study.

Abbreviations

ALN	–	alienable posessive pronouns
ATTR.NMLZ	–	attributive nominalization
COP	–	copula
DEF	–	definite marker
NEG	–	negation marker
NMLZ	–	nominalization
PL	–	plural marker
PRES	–	presentational predicate
PROG	–	progressive marker
PRT	–	particle
REFL	–	reflexive pronoun
STAT.PERF	–	stative perfect marker

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