

## Construct forms of nouns in typological perspective

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### 1. Introduction

In this paper, I argue that a notion of *construct form of nouns* generalizing the notion of *construct state* traditional in Semitic linguistics may help to capture similarities in the nominal system of languages that are not immediately apparent in current accounts, due to the use of different terms in different traditions.

In Semitic linguistics, ‘construct state’ applies to nouns immediately followed by another noun in the role of genitival modifier, or by a bound pronoun in possessive function. For example, in Hebrew, the construct state of **malkah** ‘queen’ is **malkat**, as in **malkat ha-medina** ‘the queen of the country’. Similarly, in Moroccan Arabic, the construct state of **xala** ‘(paternal) aunt’ is **xalt**, as in **xalt l-bənt** ‘the aunt of the girl’ or **xalt-i** ‘my aunt’.

Cross-linguistically, it is relatively common that person markers cross-referencing the dependent noun attach to the head of genitival constructions. Morphological marking of nouns licensing the adjunction of modifiers without cross-referencing them at the same time is less common, but by no means limited to the Semitic languages.

My proposal is to consider the construct state of Semitic nouns as a particular case of a more general notion of *construct marking of nouns* defined as follows. The two essential characteristics of construct marking are that:

- it is obligatory if the noun fulfills the role of head in a given type of noun–modifier construction;
- it does not cross-reference features of the modifier that conditions its use.

Note that, according to this definition:

- it is essential for a construct form to have its distribution conditioned by the combination with a given type of modifier, but depending on the individual languages, genitival modifiers are not the only type of modifier that may condition the use of a construct form;
- in a language in which nouns have a construct form morphologically distinct from their free form, construct form marking is obligatory when nouns combine with modifiers of a given type (in Semitic languages, NPs in the function of adnominal possessors), but does not necessarily imply the presence of such a modifier (in Semitic languages, the construct form is used not only in combination with genitive NPs, but also with adnominal possessors expressed as possessive suffixes);
- in languages in which nominal lexemes have a special non-autonomous form used exclusively in derivation or (morphological) compounding, that form is NOT a

construct form according to the definition posited above, since this definition refers to the ability for the construct form to act as the head of a syntactic construction.

It is quite obvious that not all languages have noun forms meeting this definition. It is however a cross-linguistically valid definition in the sense that languages whose nominal system includes such forms are not rare, and are not particularly restricted in their distribution across language families and geographical areas.

The aim of this paper is to illustrate the fact that morphologically distinct noun forms meeting the definition posited above can be found in many languages whose descriptions do not make use of the term ‘construct’, and also to illustrate the cross-linguistic variation in the distribution of construct forms of nouns and in their morphological characteristics.

The paper is organized as follows. Section 2 clarifies some terminological points. Section 3 gives an overview of construct forms in the languages of Sub-Saharan Africa. Section 4 presents some illustrations from other parts of the world. Section 5 summarizes the main conclusions.

## **2. Some terminological clarifications**

Apart from Semitic, Nilotic and Oceanic are the only groups of languages in the descriptions of which the term ‘construct’ is commonly used as a label for inflected forms of nouns meeting the definition formulated in the introduction. But conversely, the term ‘construct’ is sometimes used for other types of forms. In order to prevent possible confusions, it is therefore important to discuss terminological conventions departing from those adopted here at least briefly.

### *2.1. Construct form and case*

Construct forms of nouns have in common with case forms that they are conditioned by the syntactic status of nouns, but case, as this notion is commonly used in grammatical descriptions, encodes the role of NPs as elements of broader constructions, irrespective of their internal structure, whereas construct forms encode information on the internal structure of NPs. Case is a particular variety of dependent marking, whereas construct marking is an instance of head marking.

Neglecting this distinction and considering construct forms as cases would imply broadening the definition of case to any morphological variation of nouns carrying syntactic information. My position on this point is that the head *vs.* dependent marking distinction is crucial, in the description of individual languages as well as in typological perspective. Consequently, I do not retain the idea to reformulate the definition of ‘case’ in order to be able to consider construct forms as a particular type of case.

In this connection, it is important to evoke the problem raised by the use of ‘state’ in descriptions of Berber languages, which suggests a false analogy between the morphological distinction for which this term is used in Berber grammars, and the states of Semitic nouns

In Berber languages, nouns have two forms traditionally termed states. One of them is generally termed ‘free state’, and the other one ‘annexed state’, but some descriptions use ‘construct state’ instead of ‘annexed state’, which favors the confusion even more. The point is that, contrary to Semitic states, the so-called states of Berber nouns are involved in a

mechanism of dependent marking, not of head marking: in Berber languages, the choice between the ‘free state’ and the ‘annexed state’ is not conditioned by the relation between the noun and its dependents, but by the function of the NP within a broader construction. In a broad typological perspective, the two so-called states of Berber nouns are simply cases – see Arkadiev (2015) for a recent discussion.

## 2.2. *Construct form and non-autonomous form of nominal lexemes*

As already mentioned in the introduction, forms of nominal lexemes used exclusively as the input of derivational or compounding operations do not meet the definition of construct form that delimits the scope of this cross-linguistic investigation. Attention should therefore be paid to the fact that some authors (for example Jacques (2012) on Rgyalrong languages) use the term of construct form (or state) precisely for non-autonomous forms of nominal lexemes that are not construct forms in my terminology.

## 2.3. *Construct and pertensive*

In the last decade, quite a few authors working on languages that have the type of nominal form for which I use the label ‘construct form’ have designated the forms in question by the term ‘pertensive’ introduced by Dixon (2010: 268). However, ‘pertensive’ as defined by Dixon and ‘construct’ as I use this term are not entirely equivalent:

- in Dixon’s terminology, ‘pertensive’ is restricted to the marking of the possessed in NP internal possessive construction, whereas in my use of ‘construct’, this term extends to forms of nouns whose use may be conditioned by any type of modifier;
- in Dixon’s terminology, ‘pertensive’ includes any type of marking of the head of a genitival construction (including person markers expressing the person of the possessor), whereas in my use of ‘construct’, a construct marker is a morphological element which is obligatory in the presence of a given type of modifier, but does not cross-reference features of the modifier that conditions its use.

## **2. Construct forms in the languages of Sub-Saharan Africa**

The reason for treating Sub-Saharan languages separately in this paper is simply that, given my relative familiarity with several language families of Sub-Saharan Africa, I have been able to investigate the distribution of construct forms of nouns in this particular area in a relatively systematic way.

### 2.1. *Construct forms of nouns in Nilotic languages*

In African linguistics, the existence of construct forms of nouns is mainly mentioned in descriptions of East African languages belonging to the Nilotic family. Andersen (2002) on Dinka includes detailed references on previous works dealing with this topic in other Nilotic languages. However, a variety of terms have also been used to label construct forms of nouns in descriptions of individual languages:

“Such a form also occurs in some other Western Nilotic languages, and in descriptions of those languages it has been variously labeled “genitive” (Kohnen 1933:28 on Shilluk, Okoth-Okombo 1982:32 on DhoLuo), “appertentive” (Gregersen 1961:83 on DhoLuo), “status constructus” (Tucker and Bryan 1966:83), “antigenitive” (Andersen 1988:284 on Pări), and “modified noun form” (Reh 1996:116 on Anywa)”. (Andersen 2002: 13)

Among Nilotic languages, Shilluk illustrates the case of a language with two distinct forms meeting the definition of construct form (Remijsen & Ayoker 2017). One for them (designated as ‘pertensive’ by Remijsen and Ayoker) is used when the noun is the head of a genitival construction, the other one (designated as ‘construct form’) marks the noun as being modified by most modifiers other than possessors. For example, **gwôk** ‘dog’ occurs as **gwôok̄** in **gwôok̄ twôɔŋ** ‘Twong’s dog’, and as **gwôooŋ** in **gwôooŋ dwôɔŋ** ‘big dog’.

## 2.2. *Construct forms of nouns in other East African languages*

In the northeastern part of Sub-Saharan African, outside of the Nilotic language family, a construct form of nouns has been identified in the Cushitic language Iraqw (Mous 1993), and in the Omotic language Sheko (Hellenthal 2010).

The construct form of Sheko nouns is marked by a tonal alternation, a situation relatively common in Sub-Saharan Africa. This tonal change affects nouns modified by a numeral, a relative clause, a noun in genitive function, or a possessive prefix (Hellenthal 2010: 252).

## 2.3. *Construct forms of nouns in Bantu languages*

### 2.3.1. The construct forms of nouns in Tswana

In Tswana (Bantu), the nouns whose basic tonal contour ends with two successive H tones (which constitute an important proportion of Tswana nouns, perhaps the majority) show a tonal alternation ...HH ~ ...HL that must be recognized as morphological, since its conditioning cannot be stated in purely phonological terms. In this alternation, the variant ending with ...HL must be analyzed as a construct form. Interestingly, Tswana shows that the use of a construct form of the nouns and of a linker introducing the modifier may combine in the same construction.

For example, in (1a), **sìtswáná** ‘Tswana culture, language, etc.’ is the head of the NP **sìtswánà sé básibúàŋ** ‘the Tswana they speak > the way they speak Tswana’, and consequently, the contact with the linker **sé** introducing the relative clause triggers the use of the construct form **sìtswánà**. In (1b), **sìtswáná** is in contact with the same linker **sé**, but the linker introduces a dependent of **sìtíló** ‘chair’,<sup>1</sup> not of **sìtswáná**; in (1b), **sìtswáná** has no dependent, and consequently the construct form would not be correct.

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<sup>1</sup> The construct form **sìtílò** is licensed by the genitival dependent **sásìtswáná**.

(1) Tswana (Bantu – pers.doc.)

(1a) **χà-kí-rátí**      **sì-tswánà**                      **s-é**              **bá-sì-búà:-ń**  
 NEG-1SG-like   CL7-Tswana.CSTR   CL7-LK   CL2-CL7-speak-REL  
 ‘I do not like the Tswana they speak (the way they speak Tswana).’

(1b) **χà-kí-rátí**      **sì-tílò**                      **s-á-sì-tswáná**  
 NEG-1SG-like   CL7-chair.CSTR   CL7-GEN-CL7-Tswana

**s-é**      **bá-sì-rékílè:-ń**  
 CL7-LK   CL2-CL7-buy.PRF-REL  
 ‘I do not like the Tswana chair they bought.’

In Tswana, nouns with a basic tonal contour ending with ...HH must take the construct form characterized by the contour ...HL when immediately preceding one of the following types of dependents:

- a demonstrative,
- a genitival dependent,
- an adjective or a relative clause introduced by a linker homonymous with the demonstrative (and historically cognate with it),
- the interrogative determiner **-ń**,
- the negative determiner **-pé**,
- the determiner **-sílí** ‘other’,

### 2.3.2. The construct form of Eton nouns

In his analysis of relativization in Eton (Bantu), Van de Velde (2017) argues that, in this language, the so-called “augment” (a nominal prefix whose original function was admittedly the expression of definiteness distinctions) has only subsisted as an obligatory element of the ‘noun + relative clause’ construction, and consequently fulfills a purely syntactic function in the present state of the language.

This situation is interesting to compare to that described by Jenks, Makasso and Hyman (2017) for Basaá. In both languages, a prefix **í-** analyzable as the reflex of the Bantu augment is found with nouns modified by a relative clause. However, according to Jenks, Makasso and Hyman’s description, contrary to Eton, this prefix is not obligatory in Basaá, and it encodes definiteness distinctions. Consequently, Basaá and Eton can be analyzed as illustrating successive stages in the same grammaticalization process, with some interesting typological particularities:

- In Basaá, according to Jenks, Makasso and Hyman, the use of the augment to express definiteness distinctions has been restricted to nouns modified by a relative clause. Typologically, definiteness distinctions conditioned by the presence of a given type of noun modifier are not unknown, but this constitutes a somewhat unusual phenomenon (in Baltic and Slavic languages, which are the best-known cases of languages

illustrating this kind of situation, the conditioning factor is rather the presence of an adjective).

- As regards Van de Velde’s analysis of Eton, head marking (or in other words, the use of a construct form of nouns) in the ‘noun + relative clause’ construction is rarely if ever mentioned in the literature: quite obviously, construct forms of nouns (i.e., noun forms signaling that the noun combines with a given type of modifier) are more typically found with nouns heading genitival constructions.

## 2.4. *Construct forms of nouns in Chadic languages*

### 2.4.1. The construct form of Hausa nouns

Hausa (Chadic) has a construct form of nouns characterized by a suffix **-n** (singular masculine or plural) or **-ř** (singular feminine), commonly called a ‘genitive linker’. This suffix occurs when the noun is the head of a genitival construction, as in (2a) and (2c). It must also be used when the noun takes a possessive suffix other than first-person singular, see (2e) and (2f). It results from the cliticization of a pronoun **na/ta** resuming the head noun in the synonymous construction illustrated by (2b) and (2d).

(2) Hausa (Chadic – pers.doc.)

(2a) **kàre-n**                      **Daudà** (cf. **kàree** ‘dog’)  
 dog-CSTR.SG.M    Dauda  
 ‘Dauda’s dog’

(2b) **kàree na**                      **Daudà**  
 dog    that\_of.SG.M    Dauda  
 ‘Dauda’s dog’

(2c) **saaniya-ř**                      **Daudà** (cf. **saaniyaa** ‘cow’)  
 cow-CSTR.SG.F    Dauda  
 ‘Dauda’s cow’

(2d) **saaniyaa ta**                      **Daudà**  
 cow            that\_of.SG.F    Dauda  
 ‘Dauda’s cow’

(2e) **kàre-n-sà**  
 dog-CSTR.SG.M-3SG.M  
 ‘his dog’

(2f) **saaniya-ř-sà**  
 cow-CSTR.SG.F-3SG.M  
 ‘his cow’

In Hausa, the same suffix **-n** ~ **-r̄** is found with attributive adjectives preceding nouns in the construction illustrated by **fari-n kàree** ‘white dog’ or **fara-r̄ saaniyaa** ‘white cow’ (**fari** and **fara** are the masculine and feminine forms, respectively, of the adjective ‘white’). See Creissels (2009) for a discussion of the possible analyses of this situation.

#### 2.4.2. The construct form of Wandala nouns

According to Frajzyngier (2013), in the genitival construction of Wandala, ‘non-relational’ head nouns take an obligatory ‘pertensive’ suffix **-á**. The distribution of the form of Wandala nouns marked by this suffix is similar to that of Semitic construct forms, since it must be followed either by an NP in the role of genitival modifier, or by a person marker referring to a possessor. Consequently, the Wandala suffix labeled ‘pertensive’ by Frajzyngier meets the definition of construct form marker.

### 2.4. *Construct forms of nouns in Western Benue-Congo languages*

#### 2.4.1. The construct form of Yoruba nouns

Yoruba nouns have a special form used when they are followed by a genitival modifier beginning with a consonant, or by an enclitic possessive pronoun. This form is marked by the suffixation of a copy of the last vowel, which consequently meets the definition of construct form marker. This vowel copy acting as a construct form marker invariably has a mid tone if it is followed by a noun in the role of genitival modifier (as in **filà-ā Tùndé** ‘Tunde’s cap’, **òmò-ò Táíwò** ‘Taiwo’s child’, **ilé-ē Bísí** ‘Bisi’s house’), whereas with enclitic possessive pronouns, its tone is low in the 1SG and 2SG (as in **òmò-ò mī** ‘my child’), mid in the other persons (as in **iléē wá** ‘our house’) – Rowlands 1969: 45-46.

#### 2.4.2. The construct form of Igbo nouns

In the genitival construction of Igbo, if the modifier is a noun with a VCV syllable structure (which is the commonest syllable structure for Igbo nouns), a intricate system of tonal modifications affects both the head noun and the modifier. It is not possible to describe these tonal modifications in terms of purely phonological tone sandhi rules, and there is no obvious way of predicting them by positing an underlying tonal linker that would manifest itself through its interaction with the head noun and the modifier. Consequently, at least in a synchronic description of for example Ohafia Igbo, the only simple solution is to posit a tonal inflection of nouns involving a distinct construct form if their lexical tone pattern is LL or HL, and a distinct genitive form if they have no initial consonant and their lexical tone pattern is LH or HH.<sup>2</sup> This system is illustrated in (3) for Ohafia Igbo. In the case of nouns having a distinct construct form, it is used only with vowel-initial modifiers whose initial tone is L.

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<sup>2</sup> Note that personal nouns behave differently, with a genitive form marked by a prefix **!á-**.

(3) Ohafia Igbo (Western Benue-Congo – Eke 1985: 261)

lexical tone	construct form	genitive form
LL	LH / LL	LL
HL	H <sup>1</sup> H / HL	HL
LH	LH	<sup>1</sup> HH
HH	HH	H <sup>1</sup> H
H <sup>1</sup> H	H <sup>1</sup> H	H <sup>1</sup> H

2.5. *The construct form of Wolof nouns*

In Wolof (Atlantic), a construct form of nouns characterized by the suffix **-u** (sg.) / **-i** (pl.) is used exclusively for nouns followed by a genitival dependent. It occurs with no other type of dependent, and, contrary to Semitic construct forms, it does not occur with possessive affixes or determiners either.

The construct form of Wolof nouns shares with Semitic construct forms a constraint of strict contiguity with the dependent noun: other dependents of the head noun in the construct form must follow the genitival dependent, and if the dependent noun itself has dependents that must precede it, they must be placed to the left of the head noun, as illustrated by (4).

(4) Wolof (Atlantic – pers.doc.)

(4a) **fas w-u ñuul**  
 horse CLw-LK be\_black  
 ‘black horse’

(4d) **suma nijaay**  
 1SG maternal\_uncle  
 ‘my uncle’

(4c) **suma fas-u nijaay w-u ñuul**  
 1SG horse-CSTR maternal\_uncle CLw-LK be\_black  
 ‘the black horse of my uncle’ (lit. ‘my horse of uncle black’)

(4d) **\*fas-u suma nijaay**  
 horse-CSTR 1SG maternal\_uncle

2.6. *Construct forms of nouns in Mande languages*

In Mende (South Western Mande), the initial of nouns shows a consonant alternation triggered by the syntactic status of the noun. One of the two forms can be characterized as a construct form, since it is automatically used whenever the noun is immediately preceded by a dependent, whereas the other (the free form) occurs whenever the noun is the first element of an NP, or is not accompanied by any dependent, as illustrated by (5).



- (5) Mende (Mande – pers.doc.)
- (5a) **ndopô** ‘child’, **tokó** ‘arm’, **ngíla** ‘dog’ (free forms)
- (5b) **ndopó-i loko-í**  
child-D CSTR.arm-D  
‘the child’s arm’
- (5c) **ndopó-i yilɛ-í**  
child-D CSTR.dog-D  
‘the child’s dog’

Most accounts of Mende morphology suggest describing the initial of the construct form in terms of ‘lenition’ of the initial of the free form, but as shown in Creissels (1994: 152–168), the construct form must rather be characterized as lacking an underlying nasal present at the initial of the free form. In Mende, a nasal with exactly the same morphophonological properties but prefixed to verbs is the manifestation of a third-person object pronoun, and comparison with Kpelle shows that, before being reanalyzed as the mark of the free form of nouns, the nasal prefixed to nouns was a definite article.

However, this is only part of the story. The construct form of Mende nouns is also marked tonally: as can be seen in (5), Mende nouns used as heads in genitive–noun constructions, in addition to a change in their initial consonant, show a uniform L tonal contour, regardless of the lexical tone they show in their free form. Interestingly, the historical processes that led to a segmental marking of the construct form of Mende nouns must be relatively recent (since they are easy to reconstitute by comparing Mende with the other South Western Mande languages) whereas the existence of tonally-marked construct forms of nouns must be very ancient in the Mande language family. Construct forms of nouns marked by an L or LH replacive morphotoneme are found in the two major branches of the Mande family (see among others Creissels (2016) on Soninke (West Mande), Khachaturyan (2015: 53) on Mano (South Mande)),<sup>3</sup> and a tonally marked construct form of nouns can safely be reconstructed at Proto-Mande level. (6) illustrates the action of the LH replacive morphotoneme that marks head nouns in the genitival construction of Soninke.<sup>4</sup>

- (6) Soninke (Mande – pers. doc.)
- (6a) **móbíli** ‘the car’ → **Múusá mòbìlì** ‘Moussa’s car’  
Moussa car.CSTR
- (6b) **dòròkê** ‘the cloth’ → **Múusá dòròkê** ‘Moussa’s cloth’  
Moussa cloth.CSTR

<sup>3</sup> Following the Russian terminological tradition, Khachaturyan calls this construct form ‘izafet’. This is etymologically correct, since *‘idāfah* is the term used in Arabic grammars for the noun–genitive construction in which the head noun occurs in the construct form. However, this can be misleading, since for most general linguists, this term rather evokes linkers of the kind found in West Iranian languages and called *ezafé* in Iranian linguistics.

<sup>4</sup> The final modulation on the last vowel of nouns in the construct form is the manifestation of a floating L tone that marks the definite form of Soninke nouns.

(6c) **qàlisî** ‘the money’ → **Múusá qàlisî** ‘Moussa’s money’  
Moussa money.CSTR

(6d) **kitàabè** ‘the book’ → **Múusá kitàabê** ‘Moussa’s book’  
Moussa book.CSTR

### 2.7. *Construct forms of nouns in Dogon languages*

A major typological feature of Dogon languages (Heath 2008; McPherson 2013) is the complexity of the tonal alternations affecting nouns and triggered by the presence of various types of modifiers. For example, in Tommo So, alienably possessed nouns have a L tonal overlay replacing their lexical tones – Ex. (7).

(7) Tommo So (Dogon – McPherson 2013: 183-4)

(7a) **gìnè** ‘house’, **isè** ‘dog’ (free forms)

(7b) **Sáná gìnè**  
Sana house<sup>L</sup>  
‘Sana’s house’

(7c) **Àrámátá isè**  
Ramata dog<sup>L</sup>  
‘Ramata’s dog’

In Jamsay, alienably possessed nouns undergo no tonal modification, but inalienably possessed nouns have an H(H...)L tonal overlay replacing lexical tones. (8) illustrates the tonal contrast between **dě**: ‘father’ in its free form and in the form tonally modified by the presence of an inalienable possessor.

(8) Jamsay (Dogon – Heath 2008: 237)

(8a) **Dě: sà:rám.**  
father have.NEG.1SG  
‘I do not have a father.’

(8b) **Séydù dē:**  
Seydou father<sup>HL</sup>  
‘Seydou’s father’

### 3. **Construct forms in languages spoken in other parts of the world**

In this section, for the reasons already mentioned, I limit myself to a few illustrations of languages spoken in various parts of the world that have a form of nouns meeting the definition of construct form adopted here.

### 3.1. Languages of the Americas

#### 3.1.1. Nahuatl

In Classical Nahuatl, nominal inflection includes a paradigm of person prefixes encoding the person of a possessor, and these person prefixes attach to a special stem formed by substituting the ‘possessive’ suffix **-uh** (sg.) / **-huān** (pl.) for the ‘absolute’ suffix of the free form, as in (9b). Moreover, as illustrated in (9c), in the genitival construction, the head noun must take the same suffix, and the modifier is obligatorily cross-referenced by a possessive prefix. According to the definition adopted here, the suffix **-uh** (sg.) / **-huān** (pl.) is therefore a construct form marker.

(9) Classical Nahuatl (Launey 1981: 90-92)

(9a) **cihuā-tl** ‘woman, wife’ (free form)

(9b) **no-cihuā-uh**  
1SG-wife-CSTR.SG  
‘my wife’

(9c) **in ī-cihuā-uh**            **Pedro**  
D    3SG-wife-CSTR.SG    Pedro  
‘Pedro’s wife’

#### 3.1.2. Amazonian languages

In his typological overview of noun phrase structure, Dixon (2010) quotes data from M̃ky (isolate, Brazil – Monserrat 2010: 162-3) and Hixkaryana (Carib – Derbyshire 1979: 68-70, 1985: 199-200) showing that these languages have forms meeting the definition of construct form adopted here.

Overall (2007) discusses the possibility of analyzing the genitival construction of Aguaruna (Jivaroan) as involving a construct form marker (‘pertensive’ in his terminology) distinct from the suffixes encoding the person of the possessor.

### 3.2. Languages of Eurasia

#### 3.2.1. Hungarian

Recent accounts of Hungarian morphology (among others É. Kiss & al. 2003) agree that the formation of the possessed form of Hungarian nouns, traditionally described as involving stem allomorphy triggered by the addition of possessive suffixes, is better analyzed as involving a complex ending consisting of three successive morphemes:

- a ‘general possessive marker’ (*általános birtokviszonyjel*) with two allomorphs depending on the context: **-(j)a/e** and **-Ø**,

- a plural marker with the two possible values  $-\emptyset$  (singular) and **-i** (plural), with a plural marker **-i** different from the plural marker **-k** found in non-possessed nominal forms,
- a person marker expressing the person of the possessor, which has a zero form for the 3<sup>rd</sup> person singular, as illustrated in (110).

Moreover, the ‘general possessive marker’ meets the definition of construct form marker, since it is obligatory in the presence of a genitival modifier – cf. (11).

(10) Hungarian (Creissels 2006)

<b>kocsi-ja-i-m</b>	car-CSTR-PL.CSTR-1SG	‘my cars’
<b>kocsi-ja-i-d</b>	car-CSTR-PL.CSTR-2SG	‘your (sg.) cars’
<b>kocsi-ja-i</b>	car-CSTR-PL.CSTR(3SG)	‘his/her cars’
<b>kocsi-ja-i-nk</b>	car-CSTR-PL.CSTR-1PL	‘our cars’
<b>kocsi-ja-i-tok</b>	car-CSTR-PL.CSTR-2PL	‘your (pl.) cars’
<b>kocsi-ja-i-k</b>	car-CSTR-PL.CSTR-3PL	‘their cars’

(11) Hungarian (Creissels 2006)

<b>a vendég-ek kocsi-ja-i</b>	
D guest-PL	car-CSTR-PL.CSTR
‘the cars of the guests’	

This system is however somewhat blurred by the existence of a zero allomorph of the construct form marker, the zero marking of 3SG in the paradigm of the person markers referring to possessors, and the rule according to which, if no genitival modifier is present, a noun form with construct form marking but no overt person marker is interpreted as referring to a third person possessor. See Creissels (2006) for a more detailed presentation of the data, and a discussion.

### 3.2.2. Karbi

According to Konnerth (2014: 200), Karbi (Tibeto-Burman) has a nominal prefix **a-** she calls ‘general possessive’ or ‘modified’ prefix, which occurs on nouns that are modified by pre-head elements (but not if modified by post-head elements). This suffix “occurs on a head noun if that head noun is modified by a pre-head demonstrative, content question word, possessor noun, or adverbial, by a pre-head deverbal modifier, or by a pre-head classifier or numeral.” Interestingly, the same **a-** prefix can also be found in constructions in which none of the pre-head modifiers that trigger its use is present, in which case it is interpreted as marking third person possession. This might well be its original function, since it seems to be the reflex of a Proto-Tibeto-Burman prefix **\*ʔa-** / **\*(ʔ)ə** / **\*ʔɿ** / **\*ʔaŋ** / **\*ʔak** reconstructed by Matisoff (2003 : 104) with a range of functions including third person possessive.

### 3.3. *Languages of Australia and the Pacifics*

#### 3.3.1. Oceanic languages

The use of the term ‘construct’ for a morphological mechanism meeting the definition retained here is common in descriptions of Oceanic languages:

“In Micronesian and eastern Melanesian languages, the possessed NP is marked with what is generally referred to as the ‘construct’ suffix, or some other linking morpheme. The construct suffix sometimes coincides in shape with the third person singular pronominal suffix, but the two are frequently morphologically distinct.” (Lynch & al. 2001: 41)

Ex. (12) illustrates the construct form of nouns in Anejom.

(12) Anejom (Oceanic – Lynch & al. 2001: 41)

<b>etma-k</b>	<b>etma-n</b>	<b>etma-i</b>	<b>natimarid</b>
father-1SG	father-3SG	father-CSTR	chief
‘my father’	‘his/her father’	‘the chief’s father’	

Bril (2013) provides a detailed description of the morphological modification of head nouns in Nêlêmwa adnominal possession. Here is one of her examples:

(13) Nêlêmwa (Oceanic – Bril 2013: 76)

<b>pwââdagax-a</b>	<b>jowo</b>	<b>ena</b>
NOMZ:be_beautiful-CSTR	door_frame	that
‘the beauty of this door-frame’		

#### 3.3.2. Martuthunira

According to Dench (2013), the Australian language Martuthunira has a rare ‘pertensive’ suffix meeting the definition of construct marker retained in this paper, since it “can be described as the obverse of the source suffix. Where the source suffix attaches to the Possessor and codes this as the parent of the Possessee head, the pertensive attaches to Possessee and codes this as the child of the Possessor head.”

## 4. Concluding remarks

Inflected forms of nouns meeting the definition of construct form put forward in the introduction of this paper are found all around the world, in languages that have no close genetic or areal link. They show cross-linguistic variation with respect to the following parameters:

- the types of dependents that require the use of a construct form of their head;

- the possibility that construct marking interferes with the expression of some features of the head noun (number, gender);
- the morphological nature of construct form marking.

The languages in the sample give an idea of the possible variations in the syntactic distribution of construct forms. However, in the languages that have a single construct form, its distribution almost always includes the role of head in adnominal possession construction, and in the languages that have two or more distinct construct forms, one of them is used in the adnominal possession construction. Among the languages quoted in this paper, Eton (2.3.2) is the only one with a single construct form used exclusively in a construction other than adnominal possession.

As regards the possible interaction between construct marking and the expression of features of the noun marked as construct, some languages in the sample have construct markers that are portmanteau morphs expressing also number and/or gender: Hausa, Wolof, Nahuatl.

As regards the morphological nature of construct form marking, the construct form is commonly formed by the addition of a segmental marker to the free form (either prefixed or suffixed), but it may also involved the deletion of a morphological element present in the free form, as in Mende, the replacement of a morphological element present in the free form (Nahuatl), or stem-internal alterations, including prosodic alternations (Mande languages, Dogon languages, Konso, Tswana, Igbo).

In the languages that have a construct form used in the adnominal possession construction, it variously interferes with possessor indexation. In Semitic languages, person markers representing pronominal possessors are in complementary distribution with possessor NPs, and the construct form is used both with nominal and pronominal possessors. In Wolof, the construct form is used exclusively with nominal possessors. In Nahuatl, construct marking obligatorily combines with possessor indexation. In Hungarian and Karbi, third person possession is the default interpretation of a construct form in the absence of any overt indication of a possessor.

Diachronically, although not all the construct forms illustrated in this paper are historically transparent, they nevertheless suggest a variety of scenarios that may result in the emergence of a construct form of nouns:

- construct marking may result from the morphologization of sandhi processes, either segmental (as in Semitic languages) or tonal (as in Tswana or Igbo);
- in Mende, the construct form of nouns is marked by the absence of a prefix present in the free form that diachronically can be characterized as a frozen definite article, whereas in Eton, it is the construct form of nouns that is marked by a prefix analyzable as a frozen definite article;
- in Hausa, the construct form of nouns is marked by a suffix resulting from the encliticization of a resumptive pronoun in an adnominal possession construction whose literal equivalent in English would be something like ‘the dog that.of the man’ for ‘the man’s dog’;
- the construct marker of Karbi seems to result from the reanalysis of a third person possessive, and this is also the probable origin of the construct marker of Hungarian.

It is also worth noting that there seems to be no correlation between the relative order of nouns and their modifiers and the use of construct marking, since among the languages of the sample, construct forms are equally attested in noun–modifier and modifier–noun constructions.

## Abbreviations

CL: noun class, CSTR: construct marker, D: definite, F: feminine, GEN: genitive, H: high (tone), L: low (tone), LK: linker, M: masculine, NEG: negation, NOMZ: nominalizer, PL: plural, PRF: perfect, REL: relativizer, SG: singular

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