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Non-verbal predication: An analytical framework

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1. Definition and overview

Non-verbal predicative constructions can be defined as constructions giving rise to non-elliptical clauses analyzable as consisting of an argument and a predicate phrase in which the property- or relation-denoting element that determines the assignment of semantic roles is not a verb.

For example, in (1a), the phrase *a doctor* acts as the argument of the predicate phrase *entered the room*, whose nucleus (i.e., the role-assigning element) is the verb *enter*, which implies a referent (or referents) moving into some place and a place into which a referent (or referents) move(s). This is a case of verbal predication. By contrast, in (1b), *doctor* acts as the nucleus of the predicate phrase *was / was not a doctor*, in the sense that it denotes, either positively or negatively, the property predicated on the referent of *John* ("meeting the conditions to be categorized as a doctor"). This is an example of non-verbal predication.[1]

(1) English (Germanic, Indo-European)
   a. *A doctor entered* / *did not enter the room.*
   b. *John was* / *was not a doctor.*

In (2a), the predicative nucleus is the verb *read*, and the property denoted by *old* ("meeting the conditions to be characterized as old") is used to restrict the set of potential referents of *man* (nucleus of the noun phrase *the old man* representing the argument of the predicate phrase *reads a book*), whereas in (2b), the same property is predicated on the referent of *the man*, either positively or negatively.

(2) English (Germanic, Indo-European)
   a. *The old man is reading* / *is not reading a book.*
   b. *The man is* / *is not old.*

In (3a), *in the garden* acts as a place adjunct in a clause whose predicative nucleus (the verb *play*) assigns the semantic role of player to its subject (*the children*), whereas in (3b), the role-

[1] The examples for which no source is given are based on one of the authors' personal knowledge of the language or personal documentation. By "personal documentation", we mean data collected directly from native speakers or extracted from various types of sources other than language descriptions or scientific articles and checked with the help of native speakers.

assigning element in the construction of the predicate phrase is the preposition *in*, a two-place predicate. *In* assigns the role of Ground to its complement, thus creating the one-place predicate *in the garden*, which denotes, either positively or negatively, the property of "being located in the garden" predicated on the referent of *the children*.

(3) English (Germanic, Indo-European)
   a. *The children are playing* / *are not playing in the garden.*
   b. *The children are* / *are not in the garden.*

As illustrated in examples (1) to (3), and discussed in detail by Hengeveld (1992: 27–30), non-verbal predicative constructions may involve verbs (COPULAR VERBS, see §3.1 below), but such verbs have no impact on the argument structure of the construction. In the English clauses (1b), (2b) and (3b), the verb *be* is syntactically an obligatory element of the predicate phrase and can be analyzed as fulfilling the function of support for the expression of grammaticalized TAM values, but the argument structure of the clause is entirely determined by the lexical meaning of the noun *doctor* in (1b), the adjective *old* in (2b) and the preposition *in* in (3b).

Nevertheless, the presence of a copular verb makes the analysis of clauses such as (1b), (2b) and (3b), in terms of non-verbal predication, not immediately obvious. The recognition of a cross-linguistic notion of non-verbal predication encompassing such cases is supported by the observation that, in some languages, words or phrases that can fulfill non-predicative roles in clauses whose predicative nucleus is a verb (nouns, adjectives, locative expressions) can also be found in predicative function in clauses in which the non-verbal predicate is simply juxtaposed to the phrase representing its argument, as in examples (4) to (6).[2]

(4) Hungarian (Ugric, Uralic)
   János orvos.
   János doctor
   'János is a doctor.'

(5) Modern Standard Arabic (Semitic, Afroasiatic)
   Zayd<u>n marīḍ-u-n.
   Zayd(M)<NOM> ill.SG.M-NOM-INDEF
   'Zayd is ill.'

(6) Russian (Slavic, Indo-European)
   Ivan teper' v Mosk-e.
   Ivan now in Moscow-PRC
   'Ivan is presently in Moscow.'

[2] Throughout this chapter, in the examples from languages in which nouns are analyzed as inflected for case, the absence of case gloss indicates that the noun is in the "zero case", i.e., a case form that can be used, not only in certain syntactic contexts, but also as a citation form and as a pure label in the absence of any syntactic conditioning (on the theoretical importance of this notion, see Creissels 2009, 2024: 78–82). In different grammatical traditions, this form is variously labeled "nominative", "absolutive", "free state", "direct case", etc.

Since the term "non-verbal" is used by some authors to merely refer to the absence of a verb in a construction, it can give rise to ambiguity. To avoid such confusion in the context of a discussion of non-verbal predication, we propose to use "verbless" (rather than "non-verbal") for constructions that include no verb form and correspondingly "verbful" (rather than "verbal") for constructions that include a verb form as one of their elements. According to this terminology, a non-elliptical clause expressing verbal predication can only be verbful, but a clause expressing non-verbal predication is not necessarily verbless. Examples of verbful non-verbal predication are clauses that include a "verb-like" copula, such as (1b), (2b) and (3b). By contrast, (4–6) display verbless non-verbal predication, and the same occurs in clauses that feature a "non-verb-like" copula, i.e. one that has no verbal nature, as in (33) below. Thus, the following kinds of predication can be found:

VERBAL
NON-VERBAL → verbful (= with verb-like copula)
↘ verbless (= copula-less *or* with non-verb-like copula)

In the Position Paper (i.e. the previous version of this chapter offered to our contributors as a possible theoretical framework), we talked about "verbal" and "non-verbal" copulae. However, since this may suggest that copulae have the same properties as verbs, we prefer to contrast "verb-like" and "non-verb-like" copulae.

Historically, verbal predication and non-verbal predication may be related in at least two ways: on the one hand, copula constructions may result from the evolution of verbal predications in which the verb undergoes a process of semantic bleaching; on the other hand, verb forms may result from the reanalysis of deverbal derivations in non-verbal predicative role. For example, the grammaticalization of progressive periphrases with an action noun encoded as a non-verbal predicate in locational predication is widely attested in the world's languages, and resultative periphrases with a participle encoded as a nominal or adjectival predicate are another cross-linguistically common source of TAM forms. An example of the former case is *he is at working > he is working*, while an example of the latter is *she has her hair cut > she has cut her hair*.

Having now defined the topic, this paper will address it by examining the following issues:

- Types of non-verbal predication according to the morphosyntactic nature of the non-verbal predicate (§2.1)
  Nominal predication (§2.2)
  Adjectival predication (§2.3)
  Adverbial predication (§2.4)
  The coding of the argument of non-verbal predicates (§2.5)
- Types of predicative marking
  Copula construction (§3.1)
  Juxtaposition construction (§3.2)
  Predicative inflection constructions (§3.3)
  Copula strategy combined with predicative inflection strategy (§3.4)
- Semantic interpretations of non-verbal predication
  Inclusion predication (§4.1)
  Identity predication (§4.2)

Quantification (§4.3)
Locational and existential predication (§4.4)
Ostension (§4.5)
Possessive predication (§4.6)

The semantic analysis of some types of non-verbal predication, the variety of the co-expression patterns found in the world's languages, the possible mismatches between formal types and semantic types, and the competition between non-verbal and verbal predication raise complex problems. For this reason, it is useful to first consider a classification of non-verbal predicative constructions according to the morphosyntactic nature of the predicate (Section 2) and the nature of predicative marking (Section 3) before discussing the possible functions of non-verbal predication according to the semantic grid proposed in Section 4. Section 5 recapitulates some relevant parameters for the analysis of non-verbal predication, while Section 6 offers an interim conclusion.

2. The morphosyntactic nature of non-verbal predicates

2.1. Three morphosyntactic types of non-verbal predication

Dryer (2007) puts forward the following three morphosyntactic types of non-verbal predication according to the morphosyntactic nature of the non-verbal predicate: nominal, adjectival and locative. We assume this classification as the starting point, but a revision concerning the third type is necessary since its characterization as "locative" is too narrow to account for the facts of at least some languages (see Section 2.4).

In non-verbal predication, the phrase in predicative function may be:

(a) a noun phrase of different kinds (including pronouns): *Sam is a doctor* / *is my best friend* (NOMINAL PREDICATION), *This book is mine*, Italian *La persona che cerchi è lui* 'The person you're looking for is that one (lit. 'he')' (PRONOMINAL PREDICATION); [3]

(b) an adjective: *Sam is tall* (ADJECTIVAL PREDICATION);

(c) an adverb, a case-marked NP or an adpositional phrase also found in adjunct function in clauses whose predicative nucleus is a verb: *Sam is here* / *in the garden* / *with us* / *against this idea* (ADVERBIAL PREDICATION).

In order to prevent any risk of misunderstandings, it is useful to emphasize that the term "adverbial predication" as we define it does not refer to adverbs as a LEXICAL CLASS but to the whole class of PHRASES typically used as adjuncts in clauses whose predicative nucleus is a verb. Such class includes not only adverbs, but also case-marked NPs and adpositional phrases.

These three syntactic types of non-verbal predication will be addressed in the next subsections. It is worth noting, however, that they do not exhaust the inventory. The role of predicate in nominal predication can be fulfilled by an infinitival phrase or a nominalized clause, as

[3] This includes the predicative use of possessive classifiers in some South American languages since they behave as nouns.

in *My greatest ambition is to be a linguist* or *My biggest regret is our not getting acquainted earlier*. Moreover, in cleft constructions, the constituent put into focus is treated like a nominal predicate even if it does not fulfill the conditions for acting as a nominal predicate in independent clauses, cf. for example *It's with pleasure that I received your letter*. Clausal nonverbal predicates, as well as clefts, will not play a substantial role in this volume, but the reader should be aware of this potentially very promising field for typological investigation.[4]

2.2. Nominal predication

Nominal predication involves an NP in predicative function, whatever its internal composition, thus also including pronouns. In most languages, the predicate phrase in nominal predication is an unflagged noun phrase (i.e., a noun phrase in the same form as when occurring in isolation without reference to a syntactic context, either for quotation or with a function of pure designation).[5] However, in some languages, the predicate phrase in nominal predication is overtly flagged by adpositions or case-markers also used to flag noun phrases in some other functions.

A first possibility is that, in the constructions involving a noun in the role of predicative nucleus, the predicate phrase shows functive marking (i.e., includes an adposition or case-marker semantically comparable to English *as* in *He was sent as a negotiator*),[6] either obligatorily or depending on some conditions.

For example, (7a) illustrates a Mandinka (Mande) adpositional phrase whose head is the postposition *tí* acting as a functive adjunct in a clause whose predicative nucleus is the verb 'know', whereas in (7b), the *tí*-phrase acts as the predicate phrase in a construction whose predicative nucleus is the noun *bàntáŋò* 'silk-cotton tree'. In Mandinka clauses with a noun as predicative nucleus, functive marking is obligatory if the argument of the noun in predicative function is overtly expressed, as in (7b); if, instead, the argument is retrievable from the context and left unexpressed, as in (7c), the functive marking disappears.

(7) Mandinka (Central Mande, Mande)

a. *Ń́ ŋá àté lè lóŋ ŋ́ fàamáa tì.*
1SG CPL.TR 3SG.EMPH FOC know 1SG father as
'It is him that I knew as my father.'

b. *Ñĭŋ yíròo mú bàntáŋò lè tì.*
DEM tree.DEF[7] COP silk.cotton.tree.DEF FOC as
'This tree is a silk-cotton tree.' (Lit. 'This tree is as a silk-cotton tree.')

c. *Bàntáŋò lè mú.*
silk.cotton.tree.DEF FOC COP
'This is a silk-cotton tree.'

[4] On cleft constructions and their relationship with inclusion/identity predication, see Creissels (2021).
[5] See Creissels (2009, 2024: 78–82) for a discussion of this notion.
[6] On the semantic role of functive and the typology and diachrony of functive marking, see Creissels (2014).
[7] In Mandinka, as in many other languages, the grammatical element conventionally designated as a definiteness marker implies definiteness in some contexts only and tends to act in other contexts as a kind of default determiner whose presence does not carry more semantic implications than the use of the bare form of nouns in articleless languages.

In example (8), sentences (a) and (b) illustrate the syntactically optional use of functive marking in Finnish clauses whose predicative nucleus is a noun. In Finnish, the essive case marks nominal predicates expressing a stage-level property of their argument, as in (b); the same case also flags functive adjuncts in clauses whose predicative nucleus is a verb, as in (c).

(8) Finnish (Finnic, Uralic)

a. *Hän on opettaja.*
3SG be.PRS.3SG teacher
'He/she is a teacher.' (This is his/her profession and is likely to remain so.)

b. *Hän on opettaja-na.*
3SG be.PRS.3SG teacher-ESS
'He is teaching (temporarily).' (Lit. 'He/she is as a teacher.')

c. *Hän työskentelee opettaja-na.*
3SG work.PRS.3SG teacher-ESS
'He/she works as a teacher.'

Nominal predicates flagged like functive adjuncts are also found in Slavic languages, which variously use the instrumental case not only for instrumental adjuncts but also for functive adjuncts and nouns in predicative function, as in (9).

(9) Polish (Slavic, Indo-European)
Marek jest mo-im brat-em.
Marek be.PRS.3SG my-SG.M.INS brother-INS
'Marek is my brother.'

Flagging nominal predicates by means of a case marker or adposition whose meaning can be glossed as 'in the quality of...' has an obvious semantic explanation, but nominal predicates flagged in a way that has no obvious functional motivation (and could only be explained historically) can be found in some languages. For example, in Arabic, nominal predicates simply juxtaposed to their argument are in the syntactically unmarked form of nouns (the zero case, traditionally called "nominative"), as in (10a), but in past-referring clauses nominal predicates introduced by the verb-like copula *kāna* 'be' are in the accusative case (i.e., in the same case as patients in transitive clauses), as in (10b).

(10) Modern Standard Arabic (Semitic, Afroasiatic)

a. *Zayd<u>n* *muʕallim-u-n.*
Zayd(M)<NOM> teacher-NOM-INDEF
'Zayd is a teacher.'

b. *Kāna* *Zayd<u>n* *muʕallim-a-n.*
be.PST.3SG.M Zayd(M)<NOM> teacher-ACC-INDEF
'Zayd was a teacher.'

There are also languages in which nouns have a dedicated predicative form – see Section 3.3.

As observed by Stassen (1997: 100), a noteworthy property of nominal predication is that "discourse marking elements are more likely to occur obligatorily in predicate nominal sentences than in other cases of intransitive predication". For example, in Classical Nahuatl, the

assertive marker *ca* is much more frequent in nominal predication than in other types of predication (Launey 1981: 30). The obligatory use of the focus marker *lè* in the assertive positive clauses of Mandinka expressing nominal predication (see Section 4.1) illustrates the same phenomenon.

2.3. Adjectival predication

The cross-linguistic definition of a part-of-speech "adjective" is a controversial issue. For a recent and well-informed discussion, readers are referred to Beck (2023). Our proposal is that the notion of adjective is relevant for the languages having a class of underived lexemes characterized by the possibility of fulfilling the function of adnominal modifier without the additional devices that are necessary for underived lexemes belonging to other morphosyntactic classes to fulfill the same function. Such lexemes can be designated as primary adjectives. In languages with lexemes meeting this definition, secondary adjectives can be defined as derived lexemes showing the same morphosyntactic behavior as primary adjectives.

In the languages in which a part-of-speech "adjective" can be recognized according to this definition, the behavior of adjectives in predicative function may be more or less specific but may also coincide with the predicative behavior of either nouns or verbs (for a typological study of adjectival predication, see Wetzer 1996). In European languages, as a rule, the behavior of adjectives in predicative function is similar or even identical to that of nouns, but it may happen for adjectives to be described as a subclass of verbs whose only difference from the other verbs is the way they behave in adnominal modification. This situation is found, for example, in Wolof.

Recognizing adjectival predication as a particular type of non-verbal predication makes only sense for languages with a class of adjectives whose predicative behavior is distinct from that of verbs. In such languages, adjectival predicates tend to align with nominal predicates, particularly regarding the choice between the different strategies of predicative marking.

It is also possible to predicate the property denoted by adjectives, within the frame of nominal predication, taking a phrase consisting of a noun and an attributive adjective as the predicate phrase (for example *This house is an old house*). Some languages have adjectives used exclusively in noun-modifying function, and the properties denoted by such adjectives can only be predicated via this type of construction, unless deadjectival verbs denoting the same property as the adjective are also available.

However, predicative adjectives are not always equivalent to predicate phrases consisting of a noun and an attributive adjective (for example, *Peter was undecided about it* cannot be paraphrased as **Peter was an undecided person about it*), and alignment of adjectival predication with nominal predication is not an absolute rule even in languages whose adjectives may be considered "nouny". For example, in Spanish, nominal predication requires the copula *ser*, whereas in adjectival predication *estar* can be used (as in 11b) to indicate a contingent relationship between the predicative adjective and its argument.

(11) Spanish (Romance, Indo-European)

a. *Juan* *es* *callad-o.*
Juan(M) *ser*.PRS.3SG quiet-SG.M
'Juan is quiet.' (It is his nature.)

b. *Juan* *está* *callad-o.*
Juan(M) *estar*.PRS.3SG quiet-SG.M
'Juan is being quiet.'

Dryer (2007) mentions the use of distinct copulae for adjectival predicates and nominal predicates in Purki (Bodic, Sino-Tibetan; Rangan 1979) and the use of distinct copulative suffixes for adjectival predicates and nominal predicates in Logo (Moru-Madi, Central Sudanic; Tucker 1940).

Note also that predicative and attributive adjectives may contrast in terms of agreement with their controller. In languages like German (12), predicative adjectives lack agreement, whereas in Hungarian (13) the opposite occurs.

(12) German (Germanic, Indo-European)
a. *kalt-e* *Milch*
cold-SG.F milk(F)
'cold milk'
b. *kalt-es* *Wasser*
cold-SG.N water(N)
'cold water'
c. *Die* *Milch* *ist* *kalt.*
DEF.SG.F milk(F) be.PRS.3SG cold
'The milk is cold.'
d. *Das* *Wasser* *ist* *kalt.*
DEF.SG.N water(N) be.PRS.3SG cold
'The water is cold.'

(13) Hungarian (Ugric, Uralic)
a. *szép* *ház-ak*
nice house-PL
'nice houses'
b. *Ez-ek* *a* *ház-ak* *szép-ek.*
DEM-PL DEF house-PL nice-PL
'These houses are nice.'

2.4. Adverbial predication

The expression of locational predication is the most widespread function of adverbial predication. In the locational use of adverbial predication, the predicate is a locative expression, i.e. a word or phrase also found in verbal predication with the role of spatial adjunct or argument of motion verbs: spatial adverb (semantically a one-place predicate, as *here* in *John is here*), NP flagged by a spatial adposition or a case marker (semantically a two-place predicate assigning the roles of Ground and Figure to its arguments, as *in* in *John is in the garden*), or (in some languages) unflagged NP with inherent locative semantics.[8]

[8] On unmarked locatives, or "differential place marking", see Haspelmath (2019).

Cross-linguistically, non-verbal predicates consisting of phrases fulfilling adverbial functions other than locative in verbal predication are much less common. For example, in many languages, the equivalents of *The meeting is next Friday* or *The lecture is at 5 p.m.* obligatorily involve a non-copular verb 'take place', 'occur'. However, at least in some languages, adpositional phrases or case-marked NPs acting in verbal predication as adjuncts with other types of semantic roles can also be found in the role of predicate in non-verbal predication: *This present is for you, This point of view is not without problems, I am against this idea,* etc. Example (14) illustrates the predicative use of *with*-phrases (typically used as comitative adjuncts) in Portuguese.

(14) Portuguese (Romance, Indo-European)
   a. *Estou* *com* *sede.*
      be.PRS.1SG with thirst
      'I am thirsty.' (Lit. 'I am with thirst.')
   b. *Estou* *com* *tosse.*
      be.PRS.1SG with cough
      'I am coughing.' (Lit. 'I am with cough.')
   c. *Estou* *com* *problemas.*
      be.PRS.1SG with problems
      'I have problems.' (Lit. 'I am with problems.')

In example (15), a place adverb (*ott* 'there'), a manner adverb (*rosszul* 'badly' < *rossz* 'bad') and a numeral adverb (*hárm-an* 'being three' < *három* 'three') are used as non-verbal predicates in Hungarian.

(15) Hungarian (Ugric, Uralic)
   a. *Ott* *voltunk.*
      there be.PST.1PL
      'We were there.'
   b. *Rossz-ul* *vagyok.*
      bad-ADVZ be.PRS.1SG
      'I feel sick.' (Lit. 'I am badly.')
   c. *Hárm-an* *voltunk.*
      three-ADVZ be.PST.1PL
      'There were three of us.' (Lit. 'We were being three.')

In some languages, the distinction between nominal predication and adverbial predication may be superficially blurred by the possibility of zero-coding of some nouns (typically, toponyms) in place roles, as already evoked at the beginning of this section and in footnote 8. For example, in (16a), no locative marking shows up, but comparison with (16b) shows that *Sěejò* in (16a) is not a nominal predicate but rather a zero-marked locational predicate. Crucially, in Mandinka, toponyms fulfill the function of spatial adjuncts in verbal predication without necessitating overt locative marking, as in (16c).

(16) Mandinka (Central Mande, Mande)

a. *Fàatú bé Sěejò.*
Fatou COP Sédhiou
'Fatou is in Sédhiou.'

b. *Fàatú bé fàrôo tó.*
Fatou COP rice.field.DEF at
'Fatou is at the rice field.'

c. *Fàatú wúlùu-tá Sěejò.*
Fatou be.born-CPL Sédhiou
'Fatou was born in Sédhiou.'

2.5. The coding of the argument of non-verbal predicates

As regards the coding of the argument of non-verbal predicates, the commonest situation in the world's languages is that it coincides with the coding of the single core argument of intransitive verbs. There are, however, exceptions, in particular among the so-called marked-S languages, i.e., the languages in which the single core argument of intransitive verbs is in a case form distinct from that used as the citation form of nouns. In such languages, the argument of nominal predicates may be in the citation form (Handschuh 2014: 53–73).

Grammaticalization processes may also be responsible for coding patterns in which the coding characteristics of the argument of non-verbal predicates coincide with those of the object of transitive verbs. For example, in Kpelle (Mande), in verbal intransitive constructions in which the verb is immediately preceded by its subject, the third person singular pronoun is realized as a distinct segment, and the initial consonant of the verb does not change, as can be seen from (17a–b). In transitive constructions, with the object NP in immediate preverbal position, the third person singular pronominal object manifests itself by a change in the initial consonant (and the tone) of the verb (17c–f), and exactly the same phenomenon is observed with the copula in locational predication (17g–h).

(17) Kpelle (Southwestern Mande, Mande)

a. *Kú pâ.* (Preverbal subject)
1PL come
'We came.'

b. *È pà.* (Preverbal subject)
3SG come
'He/she/it came.'

c. *Loa tíe!* (Preverbal object)
hole dig
'Dig a hole!'

d. *Díe!* (3SG pronominal object)
3SG.dig
'Dig it!'

e. *Dì kú kâ.* (Preverbal object)
3PL 1PL see
'They saw us.'

f. *Dí gà.* (3SG pronominal object)
3PL 3SG.see
'They saw him.'

g. *Kú ká bɛ́.* (Non-verbal predicate)
1PL COP here
'We are here.'

h. *Gà bɛ́.* (3SG pronominal subject of non-verbal predicate)
3SG.COP here
'He is here.'
(Westermann 1930: 4, 11, 21)

The explanation is that, etymologically, the copula of Kpelle developed from the imperative of the verb 'see' (for example, the original meaning of (17g–h) was 'See us/him here!'). The object of 'see', reanalyzed as the argument of a non-verbal predicate, has maintained its original coding characteristics. For a discussion of the grammaticalization path *imperative of 'see/look' > ostensive marker > multifunctional copula*, see Creissels (2017).

3. Predicative marking in non-verbal predication

Four formal types of non-verbal predicative constructions can be distinguished:

(I) Type I: The frequently attested COPULA CONSTRUCTION (Section 3.1).
(II) Type II: The relatively common JUXTAPOSITION CONSTRUCTION (= Hengeveld's 1992 "zero-2" format) (Section 3.2).
(III) Type III: The comparatively rarer PREDICATIVE INFLECTION CONSTRUCTION, which can be further split into two subtypes (Bertinetto, Ciucci, and Farina 2019) (Section 3.3).
(IV) Type IV: The even rarer MIXED CONSTRUCTION combining the copula strategy and the predicative inflection strategy (Section 3.4)

Different construction types may coexist in one and the same language, usually as a function of various morphosyntactic (e.g. tense-aspect alternations, main clause vs. subordinate clause), pragmatic (illocutionary structure) or discourse parameters (e.g. formal-written vs. colloquial language). In many languages that have the juxtaposition construction, it is in complementary distribution with the copula construction, with Subtype IIIa of the predicative inflection construction (see Section 3.3) or both. A case in point is Erzya Mordvin (Finno-Volgaic, Uralic), where juxtaposition can only be used in present-referring contexts, whereas in future-referring contexts, or if the mood is other than indicative, the copula construction is mandatory.[9] The predicative inflection construction, in turn, offers an alternative to juxtaposition in present-referring contexts and to the copula construction in past-referring contexts, while its use is modulated by lexical class and genre (see Turunen 2009; Ajanki-Forslund and Laakso, this volume, for details):

[9] In practice, there is complementary distribution, since in the present tense the copula normally conveys future meaning.

(18) Erzya Mordvin (Mordvin, Uralic)

a. *Či-ś* *uľ-ńe-ś* *pek* *mańej* *di* *pśi.* (Copula construction)
day-DEF be-FREQ-1RTR.3SG very bright and hot
'The day was very bright and hot.'

b. *Ton* *eŕźa-ń* *ťejťeŕ-ka?* (Juxtaposition)
you Erzya-GEN girl-DIM
'Are you an Erzya girl?'

c. *Mon* *čumo-vtom-an!* (Predicative inflection)
I guilty-CAR-1SG
'I am innocent.'
(Turunen 2010: 12–13)

3.1. Type I: The copula construction

As regards its geographic distribution, the copula construction can be characterized as endemic, whereas the remaining construction types have a more limited distribution. For a typological analysis of copula constructions, see Pustet (2003).[10]

Morphologically, copulae may or may not be verbs, but the distinction is not always obvious, especially in languages with little inflection since verb-like copulae are often defective and/or irregular. The distinction has to do with the copulae's historical origin since they may grammaticalize from verbs (in particular, from the evolution of posture verbs) or other parts of speech, such as demonstratives or personal pronouns (see Chapter 2 and Chapter 33, §9.3).

Copulae must not necessarily be viewed as "semantically void". What really characterizes them (and distinguishes them from non-copular verbs) is that they DO NOT CONTRIBUTE TO THE ARGUMENT STRUCTURE OF THE CLAUSE. For example, in Spanish, as illustrated by example (11) above, *ser* and *estar* in adjectival predication meet the definition of copulae but do not just act as mere supports for the expression of TAM categories since they also provide information about the permanent vs. contingent nature of the relationship between the adjectival predicate and its argument. A distinction between copulae and "semi-copulae" is sometimes proposed, but, as discussed in detail by Hengeveld (1992: 32–39), the distinction between copulae such as English *be* and "semi-copulae" such as English *become* or *remain* is sometimes difficult to define.

Copulae must be carefully distinguished from PSEUDO-COPULAE, such as *seem* in *Sheila seems ill*, *die* in *He died a beggar*, *look* in *Mary looked ill* or *is called* in *That boy is called Peter*. Another case in point are the so-called "sensitive" pseudo-copulae, as in *Max feels fine.* Pseudo-copulae occur in constructions superficially similar to copula constructions but differ both in their semantics and syntactic behavior (Hengeveld 1992: 39–45).

Languages with a single copula available for all types of non-verbal predication are very common. Another relatively common situation is the distinction between two copulae: one for nominal (and possibly adjectival) predication and the other for locational predication (and possibly other semantic varieties of adverbial predication). Spanish illustrates the situation in which nominal predication and locational predication use two distinct copulae that are in competition for adjectival predication.

[10] See also Curnow (2000) who, however, conflates copula constructions and predicative inflection constructions.

However, other patterns (including more complex ones) are not uncommon cross-linguistically. For example, Avar (Nakh-Daghestanian) has two formally unrelated copulae: a non-verb-like copula in present tense and a verb-like copula showing regular verbal inflection for all other TAM values.

Less common patterns are attested sporadically. For example, Tswana (Bantu) has a copula *-nà* used exclusively with *with*-phrases in predicative function. Example (19a) illustrates a *with*-phrase in the role of comitative adjunct, and (19b) features the same phrase in predicative role.

(19) Tswana (Bantu, Benue-Congo, Niger-Congo)
   a. *Rì-ká-j-à* *lí-kîːtsɔ̀.*
      1PL-POT-go-FV with-Kitso
      'We may go with Kitso.'
   b. *Rì-nà* *lí-kîːtsɔ̀.*
      1PL-COP with-Kitso
      'We are with Kitso.'

In addition to TAM, the factors that often condition the choice between two or more copulae are negation, information structure, the status of the clause as independent or subordinate, or (as shown in §4) the contrast between inclusive vs. identity predication. For example, Jóola Fóoñi (Joola, Atlantic, Niger-Congo) has a non-verb-like locational copula incompatible with focalization or relativization. In relative clauses, or in independent clauses if one of the terms of the clause is focalized, a formally unrelated verb-like copula must be used.

Negative copulae formally unrelated to their counterpart in positive clauses are common (Eriksen 2011). For example, Soninke (Soninke-Bozo, Mande) has two distinct copulae for nominal and locational predication, with formally unrelated negative counterparts.

(20) Soninke (Soninke-Bozo, Mande)
   a. *Ké yúgó nì tágén ñà yí.*
      DEM man COP blacksmith.DEF FOC as
      'This man is a blacksmith.'
   b. *Ké yúgó hètí tágé yì.*
      DEM man COP.NEG blacksmith as
      'This man is not a blacksmith.'
   c. *Démbà wá kónpèn dí.*
      Demba COP room.DEF in
      'Demba is in the room.'
   d. *Démbà ntá kónpèn dí.*
      Demba COP.NEG room.DEF in
      'Demba is not in the room.'

It is also common that a single negative copula corresponds to two distinct positive copulae. Bambara (Mande) illustrates this situation.[11] Languages usually have more positive than negative copulae.

(21) Bambara (Central Mande, Mande)

a. *Sékù yé nùmú dè yé.*
Sékou COP blacksmith.DEF FOC as
'Sékou is a blacksmith.'

b. *Sékù té nùmù yé.*
Sékou COP.NEG blacksmith as
'Sékou is not a blacksmith.'

c. *Sékù bé súgú ˡlá.*
Sékou COP market.DEF at
'Sékou is at the market.'

d. *Sékù té súgú ˡlá.*
Sékou COP.NEG market.DEF at
'Sékou is not at the market.'

It is not uncommon that, in a given language, the same verb is used both predicatively and as a copula in non-verbal predication. For example, in Jóola Fóoñi, *lako* 'sit (down)' is also used as a copula, as in (22b).

(22) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)

a. *Lako taate!*
sit here
'Sit down here!'

b. *Ay a-lako-m a-paal-i di m-of-a-m u-m-e?*
who sI:clA-be-ACT SG-friend(clA)-I:2SG LOC SG-soil(clM)-DEF-clM DEM-clM-PROX
'Who is your friend in this world?'

Russian *javljat'sja* is another example of a verb occurring both as an ordinary verb with an argument structure of its own and as a copula in non-verbal predication. As an ordinary verb, *javljat'sja* is the equivalent of English 'appear, show up, occur', whereas, in its copular use, its restricted distribution and stylistic markedness are the only things that distinguish it from the standard copula *byt'*/*Ø*.

A particularly intriguing case is that of languages in which a transitive verb of possession ('have') is used not only as an existential predicator also acting as a copula in inverse-locational predication (which is relatively common) but also in plain-locational predication and sometimes even in nominal predication (Creissels, Forthcoming).

[11] In Bambara, the distinction between definite and indefinite forms of nouns is purely tonal, and there are strict syntactic restrictions on the possibility of using nouns in the indefinite form. In positive clauses, nouns in predicative function can only be in the definite form, whereas the indefinite form is possible in the corresponding negative clauses.

3.2. Type II: The juxtaposition construction

For the sake of terminological simplicity, we adopt the label "juxtaposition" construction, excluding all possible equivalents ("no copula / null copula / copula-less" construction).

According to Stassen (1997: 63), the juxtaposition construction is mostly observed and "used almost uniformly" in Oceania (Papuan, Australian and Eastern Austronesian languages) and is "highly prominent" in Central and South America, Afroasiatic and Nilo-Saharan. However, occurrences of the juxtaposition construction are not exceptional in other areas and/or language families. For example, in West Africa, despite the predominance of the copula construction, quite a few languages also attest the juxtaposition construction (Nordlinger and Sadler 2007).

Across the languages that adopt this strategy, the juxtaposition construction is more frequent:

- in nominal predication than in adverbial predication;
- with third-person arguments than with arguments representing speech act participants;
- in clauses expressing a TAM value of the type commonly labeled "indicative/realis present" than in clauses expressing other TAM values;
- in plain-locational predication than in inverse-locational (or in "existential") predication (see Section 4.4);
- with nominal predicates than with adjectival predicates (Dryer 2007: 229–230);
- in independent clauses than in subordinate clauses;
- in clauses that do not involve overt marking of information structure than in clauses in which a term is overtly focalized.

Hungarian (23) illustrates the first three tendencies. See, respectively: (23a) vs. (23b); (24a) vs. (24c); (24a) vs. (24d).

(23) Hungarian (Ugric, Uralic)

a. *János tanár.*
   János teacher
   'János is a teacher.'

b. *János a kert-ben van.*
   János DEF garden-in be.PRS.3SG
   'János is in the garden.'

c. *(Én) tanár vagyok.*
   PRO.1SG teacher be.PRS.1SG
   'I am a teacher.'

d. *János tanár volt.*
   János teacher be.PST.3SG
   'János was a teacher.'

Considering the above tendencies, one can propose the following implications:

IF JUXTAPOSITION IS USED IN/WITH	THEN IT IS ALSO USED IN/WITH
- adverbial predication	- nominal and adjectival predication
- speech act participant subjects	- third-person subjects
- clauses expressing TAM values other than those expressed by the tense commonly labeled "indicative/realis present"	- clauses expressing the TAM values corresponding to the tense commonly labeled "indicative/realis present"
- inverse-locational (or "existential") predication	- plain-locational predication
- adjectival predicates	- nominal predicates
- subordinate clauses	- independent clauses
- clauses in which a term is overtly focalized	- clauses that do not involve overt marking of information structure

3.3. Type III: The predicative inflection construction

Constructions involving predicative inflection of non-verbal predicates are particularly well attested in Uralic, Turkic and Paleosiberian, as well as in some South-American (mainly Amazonian) languages (Overall, Vallejos, and Guildea 2018; Bertinetto, Ciucci, and Farina 2019), most notably in the Chicham and Zamucoan families, and in the Tupi-Guarani branch of Tupian, but also Secoya (Tukanoan), Nivaĉle (Mataguayan), Mojeño Trinitario (Arawak) and the unclassified Movima. In addition, Stassen (1997, 2013) pointed it out for some sparse languages of Asia, Oceania and Africa, like Korku (Munda; Drake 1903), Kapampangan (Philippines; Mirikitani 1972), Beja (Cushitic) and some geographically related Eastern Sudanic languages, like Nubian. It is also found (among others) in Bantu.

According to Bertinetto, Ciucci, and Farina (2019), two main variants of the predicative inflection construction should be distinguished, which we call Subtype IIIa and IIIb, and which involve some variation across languages.

3.3.1. The predicative inflection construction IIIa

In the IIIa Subtype, widely described in the literature (see Hengeveld's 1992 "zero-1" format), the predicative use of a non-verbal word or phrase is marked by the attachment of a marker not found in the non-predicative uses of the same word or phrase. Such markers are functionally comparable to copulae and can conveniently be designated as copulative clitics or affixes. Diachronically, the cliticization of verb-like copulae is indeed, in most cases, the plausible origin of such inflections. It is difficult, however, to put forward cross-linguistically valid criteria that would make it possible to consistently draw a distinction between copulae and copulative clitics/affixes. The decision to analyze concrete cases of non-verbal predication in individual languages as instances of Type I (copula construction) or of Subtype IIIa may involve some arbitrariness. There are, however, clear cases where some morphophonological process has turned the copulative clitics into true affixes, or languages that alternate both the predicative inflection and the copula construction.

This subtype of predicative inflection shows noteworthy cross-linguistic variation in its degree of complexity, and this variation is related to the extent to which the distinctions expressed in verbal inflection are also found in the inflection of non-verbal predicates. The following examples illustrate some of the possibilities without any claim to exhaustivity.

Eastern Pomo (Pomoan) is mentioned by Dryer (2007: 226–227) (after McLendon 1975) as a language in which an invariable copulative enclitic is added to adjectives or locative case-marked nouns used predicatively. The invariable copulative suffix *-ne* of Hamar (Omotic) illustrates a similar situation. Cliticization of invariable non-verb-like copulae is a plausible origin of such predicative markers although more complex scenarios may be considered.

(24) Hamar (South Omotic, Afroasiatic)
   a. *búsko éedi sía-ne.*
      Busko person bad-COP
      'Busko is a bad person.'
   b. *hámmo koró shulí-sa-ne.*
      field this Shuli-GEN-COP
      'This field belongs to Shuli.' (Lit. 'This field is Shuli's.')
      (Petrollino 2016: 151, 195)

The Tswana example (25) illustrates a situation in which, among the various types of distinctions expressed by verbal inflection in the same language, the predicative inflection on non-verbal predicates is limited to agreement with their arguments. In Tswana, the non-verbal predicates of positive clauses expressing the TAM value "indicative/realis present" carry an obligatory prefix indexing their subject argument.[12] This set of prefixes coincides with one of the four possible sets of subject indexes prefixed to verbs, depending on the TAM-polarity value they express.

(25) Tswana (Bantu, Benue-Congo, Niger-Congo)
   a. *(Ǹná) kì-mòn̂ːnà.*
      PRO.1SG sI:1SG-man
      'I am a man.'
   b. *Mòsádí ô:-fà.*
      woman(cl1) sI:3:cl1-here
      'The woman is here.'
   c. *Sìtɬʰàrì sí-sìléèːlé.*
      tree(cl7) sI:3:cl7-cl7.tall
      'The tree is tall.'
   d. *Màpòdísí ǃá-mábèːdí.*
      policemen(cl6) sI:3:cl6-two
      'There are two policemen.' (Lit. 'The policemen are two.')

Classical Nahuatl illustrates the same kind of situation: nouns in predicative function combine with the same subject indexes as verbs but cannot combine with the other markers that constitute the verb inflection (Launey 1981). Cliticization of pronouns representing the argument of the non-verbal predicate is the plausible source of this kind of predicative inflection of non-verbal predicates. This is indeed the diachronic source of the predicative inflection

[12] In positive clauses expressing other TAM values and in negative clauses, non-verbal predicates do not take subject prefixes but obligatorily combine with copulae. With nouns in predicative function combined with a 3rd person argument, a copula is always required (and the prefixation of subject indexes is never possible), even in the conditions in which other types of non-verbal predicates take subject prefixes.

construction found in the Turkic languages (Johanson 1998: 41). See e.g. Tatar (*sin*) *awïl-dan-**sïŋ*** ‘you are from the village’, (*min*) *Kazan-nan-**mïn***, ‘I am from Kazan’ (where *dan*/*nan* is the locative morpheme). Alternatively, the juxtaposition strategy can be used, as in *min awïl-dan* ‘I am from the village’ (Wintschalek 1993: 88–89; Berta 1998: 298). Here again, one finds TAM restrictions: past-referring contexts mostly use the copula construction (see Ragagnin, this volume, for details).

The Erzya Mordvin example in (26) illustrates instead the predicative inflection strategy IIIa through affixes expressing both person and TAM distinctions. Not only nouns and adjectives but also adverbial predicates can host such affixes.

(26) Erzya Mordvin (Mordvin, Uralic)
ava-m *robota-so-l'*
mother-POSS.1SG work-INE-2PST.3SG
‘My mother was at work.’
(Turunen 2009: 293)

Note, however, that the inflection of non-verbal predicates, compared with verbal ones, often presents restrictions regarding person expression and TAM values. In Erzya Mordvin, for instance, depending on tense reference, the predicative inflection alternates with the juxtaposition or the copula construction (see Ajanki-Forslund and Laakso, this volume, for details).

The Algonquian language Blackfoot (Frantz 1991) illustrates the borderline case in which a verbalizing affix (*-yi*) is added to nouns acting as predicates, creating a stem taking exactly the same inflectional affixes as underived intransitive verbs. Merlan (1983) describes a similar phenomenon in Ngalakan (Gunwinyguan). It is debatable whether such situations should be viewed as instances of non-verbal predication of Subtype IIIa or rather as instances of verbal predication involving denominal verbs glossable as ‘be N’. The issue is particularly thorny in languages with relatively reduced inflectional morphology.

3.3.2. The predicative inflection construction IIIb

The much rarer Subtype IIIb also involves a dedicated morphological form of the non-verbal predicate (usually limited to nouns and adjectives), but this dedicated predicative form stands out (at least diachronically) as MORPHOLOGICALLY LIGHTER than any other form to be found in nouns or adjectives in argument or attribute position. Consequently, it cannot be described as resulting from the attachment of a predicative marker functionally similar to a copula.

Bertinetto, Ciucci, and Farina (2019) analyze constructions of this type in Zamucoan and Tupi-Guarani languages, in which nouns or adjectives in argument or attribute position carry a sort of case marker, whereas noun/adjective predicates merely consist (or historically did) of the word’s root. Example (27a), from Old Zamuco, shows two non-verbal predications in sequence. In both, the subject receives the argument case suffix (*-tie* or *-de*), while the predicate has no inflection ending and coincides with the root. Thus, *Tupâ* ‘God’ acts as the nominal predicate, contrasting with *Tupâ-de* in the role of argument. Examples (27b–d) show that the argument form is used in any non-predicative syntactic function.

(27) Old Zamuco (Zamucoan)

a. *isi-tie* *Tupâ,* *Tupâ-de* *d-ai.*
[3.POSS]being-M.SG.ARG God[M.SG.PRED] God-SG.M.ARG 3.POSS-father[M.SG.PRED]
'He (lit. his being) is God, God is his father.'

b. *uto-ño* *Tupâ-de!*
[2.IRR]call.for.help-PL God-M.SG.ARG
'Call on God for help!'

c. *a-icaniraga* *y-ipiasub-itie* *ome* *Tupâ-de.*
1SG.REAL-be.passionate 1SG.POSS-deed-M.SG.ARG for God-M.SG.ARG
'I am passionate in what I do for God.'

d. *ore* *peroi* *Tupâ-de* *igueda-tie.*
3PL [3]go.a.lot God-M.SG.ARG [3.POSS]house-M.SG.ARG
'They often visit the house of God (i.e. the church).'
(Ciucci, Forthcoming)

Ancient Semitic had a predicative construction of Subtype IIIb, as shown by Akkadian, which exhibited the so-called "predicative construction", with a "light" form of the word (often a verbal noun), i.e. without case endings, employed in a copula-less sentence to express inclusion predication (Huehnergard 2005: 219–220). This form (e.g. *šarrāq* in 28) contrasts with the so-called "status rectus" (*šarrāqum*):

(28) Akkadian (Semitic, Afroasiatic)
šu *šarrāq.*
3SG.M thief[PRED]
'He is a thief.'
(Buccellati 1968: 6)

Modern Semitic languages have mostly lost this contrast, except for some dialects, such as the Neo-Aramaic dialect of Maʿlūla (Syria), where adjectives have preserved the so-called absolute (or indeterminate) form with predicative value (Arnold 1989). However, this dialect variety features the mixed strategy described in §3.4 (see below).

Non-verbal predication involving a dedicated predicative form of nouns and adjectives in predicative function, morphologically lighter than the forms used in non-predicative functions, is also attested in a group of Bantu languages that have a tonally marked predicative form of nouns and adjectives.[13] In Cuwabo (Bantu), the citation form of nouns includes at least one high tone, and this form is the only one possible in most syntactic contexts. However, a rule deleting the first high tone of nouns (hence, making the word "lighter") automatically applies in some syntactic conditions, and the predicative use is one of them (see Guérois, this volume).

[13] Not all Bantu languages with a tonally-marked predicative form of nouns lend themselves to this analysis, but only those in which the predicative form of nouns involves DELETION of a high tone. In other Bantu languages (such as Shona), the predicative use of nouns involves ADDITION of a high tone, which rather suggests analyzing it as an instance of Subtype IIIa, in which the H tone added to nouns in predicative function is probably all that persists of a former H-toned copula.

(29) Cuwabo (Bantu, Benue-Congo, Niger-Congo)
   a. *namápûja*
      'joker' (Citation form)
   b. *Namárógoló namapuja.*[14]
      hare HTD.joker
      'The hare is a joker.'
      (Guérois 2015: 467)

Historically, the form of Cuwabo nouns used in predicative function emerged from the reanalysis of a former system of definiteness/specificity marking. The first high tone is the reflex of a former prefix (traditionally called "augment" by Bantuists) still found in other Bantu languages as a specificity/definiteness marker. In some Bantu languages (including Cuwabo), the former definite form of nouns became the only possible form of nouns in most syntactic contexts, but the former augment-less (indefinite) form persisted in a limited number of contexts, precisely including the predicative use. By contrast, in another group of Bantu languages, the same former definiteness/specificity contrast has been reanalyzed as a case contrast.

Bertinetto, Ciucci, and Farina (2019: 125) propose the following characterization of the contrast between constructions IIIa and IIIb in the languages they analyze (Table 1):

Table 1. Contrasting features of Subtypes IIIa and IIIb.

	CONSTRUCTION IIIa	CONSTRUCTION IIIb
Lexical classes potentially involved	nouns, adjectives, adverbs (pronouns, quantifiers)	mainly nouns and adjectives
Morphological marking on	non-verbal predicates (by means of former copula or pronominal elements)	non-predicative elements in argument/attribute position
Nature of morphological exponents	person-(TAM-)sensitive affixes	case-like affixes

3.4. Type IV: Copula strategy combined with predicative inflection

The combination of the copula strategy and the predicative inflection strategy in the same construction is attested in the nominal predication of Nahuatl. In the present tense, Nahuatl nouns in predicative function take subject prefixes identical to those of verbs. In the other TAM forms, nouns in predicative function combine with a conjugated copula (also used in all tenses in locational predication) but still take subject prefixes.

[14] In (29b), two successive high tones are deleted because the deletion rule applies to underlying tones, and this noun includes a single underlying high tone. The high tone on the third syllable of the citation form results from the spreading of the tone underlyingly attached to the second syllable).

(30) Classical Nahuatl (Aztecan, Uto-Aztecan)
   a. *Ni-tēuctli.*
      1SG-lord
      'I am a lord.'
   b. *Ni-tēuctli ni-catca.*
      1SG-lord 1SG-be.PST
      'I was a lord.'
      (Launey 1981)

In some languages displaying this mixed construction, the dedicated predicative form is morphologically lighter than the one used in non-predicative function and is restricted to adjectives or a subset thereof. This occurs in various Saami dialects, where some adjectives contrast a predicative and an attributive form (Sammallahti 1998). In German, predicative adjectives lack the agreement marks that are obligatory in their attributive use – see example (12) above.

In Russian, a subset of adjectives is characterized by the existence of forms found exclusively in predicative function, which express agreement with their argument in the same way as attributive adjectives with their head but using shorter endings (Nesset and Janda 2023). For example, (31a), with the special predicative form of the adjective 'ill', contrasts with (31b), with the form also used in attributive function, along the parameter of transitory (*bol'na*) vs. permanent condition (*bol'naja*). The transitory condition can also be expressed through the instrumental case, as in (31c) (recall that, in Russian, the clauses expressing present-referring non-verbal predication are verbless).

(31) Russian (Slavic, Indo-European)
   a. *Ona by-l-a bol'n-a.*
      3SG.F be-PST-SG.F ill-SG.F.PRED
      'She was ill.' (Transitory)
   b. *Ona by-l-a bol'n-aja.*
      3SG.F be-PST-SG.F ill-SG.F
      'She was ill.' (Permanent)
   c. *Ona by-l-a bol'n-oj.*
      3SG.F be-PST-SG.F ill-SG.F.INS
      'She was ill.' (Transitory)

The situation of Russian is reminiscent of that of the Bantu languages discussed in §3.3.2 since it originates from the reanalysis of a former definiteness contrast. At some point in the history of Slavic and Baltic languages, adjectives developed definite forms with endings resulting from the fusion of adjectival endings with pronouns. In some of these languages, this definiteness contrast in adjectival inflection has been maintained at least to some extent (as in Croatian *lijep-Ø momak* (nice-INDEF young.man) 'a nice young man' / *lijep-i momak* (nice-DEF young.man) 'the nice young man'), but in Russian, the short adjectival endings persist exclusively in predicative function.

Depending on the context, some of the languages discussed in this section might appear to alternate the mixed Type IV with Subtype IIIb. However, this merely depends on the restriction impinging upon the copula in present-referring clauses, as observed in Russian and

Nahuatl (see examples (6) and (30)) as well as in the Neo-Aramaic dialect of Maʿlūla mentioned in Section 3.3.2.

4. Non-verbal predication and functional types of predication

The following sections address inclusion predication (Section 4.1), identity predication (Section 4.2), quantification (Section 4.3), locational and existential predication (Section 4.4), ostensive predication (Section 4.5), and possessive predication (Section 4.6). Although non-verbal predication is particularly prominent in these functional domains (Hengeveld 1992; Payne 1997; Stassen 1997; Dixon 2010; Overall, Vallejo, and Gildea 2018), the same meanings can often be expressed via verbal predication. Conversely, it is sometimes possible to find non-verbal predication constructions expressing meanings more commonly expressed via the verbal strategy. For example, Mandinka has a verb 'listen' (*lámóyì*), but the same meaning is commonly expressed via adverbial predication, as in (32).

(32) Mandinka (Central Mande, Mande)

Díndíŋò	*túlòo*	*bé*	*wǒo*	*kúmòo*	*lá*.
child.DEF	ear.DEF	COP	DEM	word.DEF	at

'The child is listening to these words.' (Lit. 'The child's ear is at these words.')

Therefore, the mere fact that a predicative construction expresses one of the types of relationships discussed in this section does not ensure that it is an instance of non-verbal predication in a given language, and, conversely, the use of non-verbal predication is not limited to the functional domains in which it is particularly prominent.

4.1. Inclusion predication

The expression of "logical inclusion" (traditionally called "proper inclusion" and sometimes also "ascription") is the most typical function of nominal and adjectival predication, as illustrated by *Sam is a doctor* or *Sam is tall*. It is instead less prominent, but possible, with adverbial predication: compare *Louise is in her room* (episodic situation) with *Caracas is in Venezuela* (qualification of Caracas as included in the set of referents that have such a geographical position). Some authors distinguish between inclusive and attributive predication for nouns and adjectives, respectively, but the distinction ultimately boils down to the same sort of logical operation (intensional inclusion into the appropriate (sub)set). "Inclusive" (also called "ascriptive") predication contrasts with the type here called "identity" predication, which points out a (more or less strict) equivalence between two referents (see §4.2). Unfortunately, in-depth semantic analyses of the distinction between inclusion and identity are only available for a limited number of well-described languages and heavily rely on specificities of the languages in question (for example, constraints on using bare nouns in predicative function).

Inclusion is not exclusively conveyed by non-verbal predicates although it is a typical function thereof. An equivalent meaning may be expressed by means of purely verbal strategies, such as pseudo-copular constructions like *This sounds*/*smells wrong* (i.e. 'This is probably wrong').

4.2. Identity predication

We take as instances of identity predication any clause in which the predicate and the argument phrase are equireferential, i.e. establish a correspondence between two descriptions of the same referent (or set of referents). Examples are *Mary is Phil's mother*, *Sam is that one*, *Those men are the people I mentioned*. This definition is narrower than Stassen's (1997: 101) and rather corresponds to his definition of "equational statements". The point is that Stassen includes what he calls "presentational statements" into the category of identity statements. However, the examples of presentational statements he provides show that this notion has to do with the use of constructions in discourse rather than with their intrinsic semantic properties. Semantically, there is no reason to avoid analyzing *That's a sycamore tree you see there* as expressing inclusion ('What you see there belongs to the set of sycamore trees'). This also applies to "definitional statements", such as *A bachelor is an unmarried man*, which is equally intersective in terms of inclusion of a (set of) referent(s) into a set that indicates a characterizing property.

In clauses that express identity and fall within the definition of non-verbal predication, the predicative role is usually fulfilled by a referring expression selecting a unique and contextually identifiable referent (or set of referents). There is thus a radical contrast between inclusion and identity regarding the feature of specificity: compare *Mary is a doctor* (inclusion) with *Mary is the doctor* / *one of the doctors* (identity). The former statement refers to the intensional set **doctor**, whereas the latter ones single out specific referents in the situational context. This contrast is confirmed by the fact that some languages use different copulae for the two types of sentences.[15] For instance, Thai (Tai-Kadai) has *pen* for inclusion and *khi:* for identity predication (Stassen 1997: 104–105). Similarly, Kalaallisut (aka West Greenlandic, Yupik-Inuktitut-Unangan) has a non-verb-like copula in identity clauses, contrasting with a copulative suffix that converts the noun into an intransitive verb in inclusion statements.

(33) Kalaallisut (Yupik-Inuktitut-Unangan)
   a. *Hansi tassa pisurtaq.*
      Hansi COP leader
      'Hansi is the leader.'
   b. *Illuqarvi-u-vuq.*
      town-COP-3SG.INDIC
      'It is a town.'
      (Fortescue 1984)

The use of different types of construction for inclusion and identity predication has also been observed in some Tupi-Guarani languages (Bertinetto, Ciucci, and Farina 2019: 158).

Some authors (Stassen 1997; Dryer 2007; Roy 2013) state that identity clauses are not properly predicative and can only be so interpreted if a "characterizational" reading is available. The consequence of this view would thus be to set apart identity clauses from the other types of clauses commonly viewed as instances of non-verbal predication. However, this is hardly reconcilable with the fact that an overwhelming majority of the world's languages use

[15] We ignore here the possibility of expressing identity statements by means of dedicated verbs (like *Mary coincides with the doctor*).

the same constructions for inclusion and identity predication. Hence, they use the same predicative strategy despite their semantic contrast. Besides, not all languages have a system of articles marking the distinction between, e.g., *That man is a doctor* (inclusion) and *That man is the doctor* (identity). Moreover, even among the languages that have grammaticalized definiteness marking, the distinction is not necessarily ensured due to cross-linguistic variation in the syntactic constraints on the use of the definite/indefinite forms of nouns. For example, in Mandinka, in assertive positive clauses expressing nominal predication, the noun in predicative function can only be in the definite form, as in (34a). In example (34b), it is the modifier *ñĭŋ sàatêe* '(of) this village' that triggers the identity reading; otherwise, the ambiguity is systematic.

(34) Mandinka (Central Mande, Mande)

a. *À fàamáa mú àlìmàamôo lè tí.*
3SG father COP imam.DEF FOC as
'His/her father is an imam.' Or 'His/her father is the imam.'

b. *À fàamáa mú ñĭŋ sàatée àlìmàamôo lè tí.*
3SG father COP DEM village.DEF imam.DEF FOC as
'His/her father is the imam of this village.'

A similar situation can be found, among other languages, in Basque. The explanation is the widespread tendency of the definite form of nouns to expand the range of its uses, with the result that, in many languages, a former definite form is best analyzed synchronically as the semantically unmarked form of nouns, since it has become obligatory in many syntactic contexts. Consequently, the former definite vs. indefinite contrast persists only in restricted conditions (typically, in negative and/or interrogative clauses).

Besides specificity, however expressed, another important discriminating feature between inclusion and identity predication is provided by syntactic reversibility of the non-verbal predicate and its argument, i.e. by the possibility (readily available to identity statements) of inverting the two noun phrases without any intonation modification.[16] Needless to say, such inversion conveys different meanings, at least in terms of information structure, but considering the equireferentiality of the two noun phrases in identity statements, it is no wonder that they can readily exchange their syntactic role. This is a major difference with respect to the inclusion type, where such inversion is necessarily marked, in languages that allow it, by some grammatical procedures, such as focalization: compare Italian *Paolo è un dottore* 'Paolo is a doctor' with *UN DOTTORE è Paolo* (same meaning but different information structure).

The reversibility of predicate and argument, as typically found in identity statements, suggests semantic symmetry. However, it is important to observe that not all identity clauses implement a truly symmetrical situation. This is only ensured when both predicate and argument are expressed by rigid designators, such as proper names, as in *The Morning Star is the Evening Star*, *The Evening Star is the Morning Star*. In such cases, the two noun phrases can exchange their syntactic roles without modification of semantic content, except for the informational structure change. Thus, formulations such as *The Morning Star is also the Evening Star* and *The Evening Star is also the Morning Star* are equally natural. By contrast, there is no symmetry in identity clauses involving the specification of a property. For instance, despite

[16] Note, however, that in some Mande languages, the reversibility of predicate and argument has been extended to clauses expressing inclusion (cf. Creissels, this volume).

the syntactic reversibility of *Paris is the capital of France* and *The capital of France is Paris*, the semantic asymmetry becomes apparent in *Paris is also* / *above all* / *in particular the capital of France* and **The capital of France is also* / *above all* / *in particular Paris*. This shows that identity predication does not presuppose equivalence in all respects of the two referent descriptions but mere equireferentiality. Two descriptions may indeed point to the same referent despite having different connotations. Hengeveld (1992: 82–83) observes, in this respect, that in *The capital of France is Paris*, the predicate provides the specification of its argument, whereas in *Paris is the capital of France* the predicate gives one of the possible characterizations of its argument. Similarly, although *John is the doctor* is a true statement in the relevant situation, *John* certainly has many more properties, like, say, being Mary's brother-in-law or Sam's preferred tennis partner. This explains the asymmetry of *John is also the doctor* and **The doctor is also John.*

In the typological approach adopted here, and to remain as theory-independent as possible, it is advisable to avoid engaging in a tight theoretical discussion to formally define the different semantic functions of non-verbal predication.[17] For the sake of the cross-linguistic comparison attempted in this collection, it will be enough to focus on the major contrast between inclusion and (in a broad sense) identity predication to see whether and how these two types differ in the world's languages.

The following properties (or at least tendencies), which typically distinguish inclusion from identity predication (Table 2), are worth being tested in the individual languages.

Table 2. Properties of identity and inclusion predication.

	INCLUSION	IDENTITY
Referential specificity	–	+
Equireferentiality	–	+
Intonational or syntactic marking of argument-predicate inversion	+	–

4.3. Quantification

This functional type can be illustrated by *Sam's friends are many*, Italian *Le possibilità sono due*, 'there are two possibilities'. Some languages make wide use of such clauses, owing to a tendency to avoid existential or locational constructions with a "noun + quantitative modifier" in the role of Figure (such as *There are many churches in this town*) or purely verbal possessive constructions with a "noun + quantitative modifier" in the role of possessee (such as *He has*/*possesses two cars*). In such languages, formulations that can be rendered literally as *The churches in this town are many* or *His children are two* are strongly preferred, if not obligatory. Nahuatl (Uto-Aztecan) illustrates this phenomenon (Launey 1981: 102).

[17] The interested reader can consult, among others, Moro (1997), Partee (2010), Mikkelsen (2011), Heycock (2020) and Martinović (2022).

(35) Classical Nahuatl (Aztecan, Uto-Aztecan)
Zan cē in no-pil.
only one DEF 1SG-child
'I only have one child.' (Lit. 'My child is only one.')
(Launey 1981)

Formally, clauses expressing quantification are commonly aligned with nominal or adjectival predication. However, they may also follow the adverbial predication pattern, with a predicate phrase consisting of a numeral adverb or an adpositional phrase including a number word. A Hungarian example with a numeral adverb is in (15c) in Section 2.4. Italian can also be mentioned here (*Siamo in tre* 'There are three of us', lit. 'We are in three'). In French, *Les conclusions qui se dégagent sont au nombre de trois* 'There are three conclusions coming out', lit. 'The conclusions that come out are in the number of three', is also a case in point, with a predicate phrase whose literal meaning is 'in the number of *x*'.

4.4. Locational and existential predication

Prototypical locational clauses express the location of an easily movable inanimate Figure with respect to a Ground occupying a fixed position in space. Depending on individual languages, the predicative constructions identified as locational by reference to this prototype may variously extend to spatial relationships that depart more or less from the prototype and to relationships that can only be viewed as spatial in a metaphorical sense.

"Locational predication" is the term commonly used to characterize constructions such as *The cat is in the tree*, but the notion of locational predication also applies to constructions such as *There is a cat in the tree*, commonly designated as "existential". In fact, such constructions encode the same Figure-Ground relationships, with, however, a different perspectivization. Following Creissels (2019a), we propose to designate clauses such as *The cat is in the tree* as PLAIN-LOCATIONAL and clauses such as *There is a cat in the tree* as INVERSE-LOCATIONAL. The justification for this terminology is the respective salience of Figure and Ground. Plain-locational clauses are categorical predications in which a (mobile) Figure is placed in a (fixed) Ground, hence the unmarked nature of the "from Figure to Ground" perspectivization. These are contexts in which the relevant information is the location of a referent already introduced in the discourse or, at any rate, assumed to be known to the addressees. Inverse-locational clauses, by contrast, are thetic predications concerning a given Ground as the environment where a Figure finds its place, hence the marked nature of the "from Ground to Figure" perspectivization.[18] Syntactically, in plain-locational clauses, the Ground phrase is always an essential element of the clause, whereas in the inverse-locational clauses of many languages the Ground phrase is a syntactically optional element (e.g. *Look, there is a cat*).

The notion of plain-locational predication as just defined corresponds to Levinson and Wilkins' (2006) "basic locative construction", defined as the construction used to express prototypical Figure-Ground relationships in response to a question of the kind 'Where is the X?'

The variant of locational predication expressing the "from Ground to Figure" perspectivization (i.e., inverse-locational predication) is commonly, but somewhat misleadingly, designated as "existential" (Creissels 2019a). The problem with the label "existential" is that it of-

[18] The distinction "categorical" vs. "thetic", stemming from Brentano (1874), was popularized in linguistics by Sasse (1987).

ten encompasses clauses expressing Figure-Ground relationships with the "from Ground to Figure" perspectivization (i.e. inverse-locational clauses) and clauses that characterize the referent of a nominal expression as being an element of some vaguely specifiable situation (typically, the ontological universe), such as *God exists* or *There are unhappy people*. This practice is favored by the fact that inverse-locational clauses and clauses expressing pure existence may differ only in the presence vs. absence of a locative expression, as in *There are pygmy elephants* (existential clause) / *There are pygmy elephants in Borneo* (inverse-locational clause). However, it is desirable to have a terminological distinction between these two types of clauses. The adoption of the term "inverse-locational predication" proposed by Creissels (2019a) makes it possible to reserve the term "existential" for clauses characterizing the referent of a nominal expression as being an element of some unspecified situation, and this is the way "existential" will be used in the remainder of this section.

The importance of a terminological distinction between these two clause types is also acknowledged by Haspelmath (2025), but the solution he proposes is different since he maintains the label "existential" for Creissels' inverse-locational clauses and introduces the label "hyparctic", from the Greek word *hyparxis* (*ὕπαρξις*) 'existence', for the clauses designated as existential in the remainder of this section. Our reasons for not adopting this proposal are twofold. First, as argued by Creissels (2019a), "existential" does not accurately represent the nature of the most prototypical inverse-locational clauses, which are not synonymous with those projected by verbs such as English *exist* (cf. the unacceptability of **There exists a cat in the tree*). Second, the use of two etymologically equivalent labels (such as "existential" and "hyparctic") for two distinct constructions does not contribute to more clearly reflecting their differences.

4.4.1. Plain-locational predication

Insofar as it meets the definition of non-verbal predication (which, however, is not always the case; see below), plain-locational predication is a semantic subtype of adverbial predication.

Plain-locational predication may involve a copula also found in nominal predication (as in English). In the languages that employ the juxtaposition construction in nominal predication, the same juxtaposition construction type may be used for plain-locational predication (as in Classical Arabic in the present tense).

A third possibility is using two distinct copulae in nominal and plain-locational predication, as in (36).

(36) Mandinka (Central Mande, Mande)

a. *Ń̀ fàamáa mù dánòo lè tí.*
1SG father COP hunter.DEF FOC as
'My father is a hunter.'

b. *Ń̀ fàamáa bè káŋkáŋò kónò.*
1SG father COP garden.DEF in
'My father is in the garden.'

A fourth possibility, illustrated by example (23a–b), reproduced here as (37), is that the use of a copula in locational predication contrasts with the use of the juxtaposition construction in nominal predication (under the restriction noted about (23)).

(37) Hungarian (Ugric, Uralic)

a. *János tanár.*
János teacher
'János is a teacher.'

b. *János a kert-ben van.*
János DEF garden-in be.PRS.3SG
'János is in the garden.'

Many languages use posture verbs ('lie', 'sit', 'stand', 'hang') in locational predication, irrespective of whether the specification of the Figure's posture is communicatively relevant. In some languages, this specification is obligatory, as in the Tibeto-Burman languages, where a set of locational-existential verbs finely distinguish the animacy and position of the Figure (as attached to or contained in another object; see Huang 2013 for a survey of locational-existential verbs in over 100 Tibeto-Burman languages); in others, such as German, cf. (38), it is optional.

(38) German (Germanic, Indo-European)

Das	*Buch*	*ist / liegt*	*auf*	*dem*	*Tisch.*
DEF.SG.N	book(N)	be.PRS.3SG / lie-PRS.3SG	on	DEF.DAT.SG.M	table(M)

'The book is / is lying on the table.'
(Koch 2012)

Note that the recognition of locational clauses specifying the posture of the Figure (sitting, lying or standing) as instances of non-verbal predication is problematic, given the definition of copulae as playing no role in the determination of the semantic roles assigned to the nominal terms of the predicative construction. A precise characterization of such uses of postural verbs implies evaluating their degree of semantic bleaching, which may be a thorny issue.

The same remark applies to other verbs routinely used in the locational clauses of some languages, such as 'remain', 'live' or 'be found'. There are also languages (for example, Japanese) in which the expression of location involves verbs sensitive to the animacy of the Figure, which makes problematic an analysis in terms of non-verbal predication since the definition of copula implies that it does not impose selectional restrictions on the argument of the non-verbal predicate.

4.4.2. Inverse-locational predication

As noted in §4.4, clauses encoding Figure-Ground relationships with the perspectivization "from Ground to Figure", such as *There is a cat on the tree*, are commonly called "existential clauses". Creissels (2019a) proposed instead to characterize them as expressing inverse-locational predication. The term "existential" is thus reserved here for a distinct (although related) type of clauses (cf. §4.4.3 below).

As discussed by Creissels (2019a), probably more than half of the world's languages do not have an inverse-locational predication involving dedicated marking. In such languages, the perspectivization "from Ground to Figure" may be marked by variation in constituent order, as in Basque (39) or Finnish (40).

(39) Central Basque (Euskaran)[19]
a. *Parke-a ibai-ondo-an dago.*
park-SG river-side-SG.LOC be.PRS.3SG
'The park is next to the river.'
b. *Ibai-ondo-an parke eder bat dago.*
river-side-SG.LOC park lovely one be.PRS.3SG
'There is a lovely park next to the river.'

(40) Finnish (Finnic, Uralic)
a. *Poika on piha-lla.*
boy be.PRS.3SG yard-ADESS
'The boy is in the yard.'
b. *Piha-lla on poika.*
yard-ADESS be.PRS.3SG boy
'There is a boy in the yard.'
(Huumo 2003: 464)

However, there are many languages in which the construction found in typical plain-locational contexts can also be found with the same constituent order in contexts which, in other languages, would require either the choice of a construction involving dedicated inverse-locational marking or a change in constituent order. In the absence of dedicated marking, focus marking or definiteness marking may provide rough equivalents of the distinction between plain- and inverse-locational predication, but at least some languages attest the possibility of locational clauses in which no hint is given as for a plain- or inverse-locational interpretation. The Australian language Mangarayi (41) is a case in point. See also Creissels (2019b) on the languages of the Sudanic belt.

(41) Mangarayi (Mangarayi, Mangarayi-Maran)
Mawuj ja-Ø-ṇi biyaŋgin ṇa-boŋgan.
food 3-3SG-be inside LOC-box
'There's food in the box.' Or 'The food is in the box.'
(Merlan 1982)

Creissels (2019a) shows that the generalizations proposed by Clark (1978) about locational and existential clauses on the basis of a relatively small language sample, in which some areas only are well represented, do not stand up to confrontation with a wider and more representative sample of the world's languages. Creissels identifies the following types of dedicated inverse-locational predication constructions (henceforth ILP) and discusses the historical evolutions that may lead to their emergence. All of them are instances of non-verbal predication.

• THERE_BE-ILP CONSTRUCTIONS differ from plain-locational predication by the obligatory presence of a locative expletive, such as English *there* or Italian *ci*.

[19] Basque is commonly presented as a language isolate, but its internal diversity is such that it is better characterized as a language family (Euskaran) consisting of a small number of closely related languages.

(42) Italian (Romance, Indo-European)

a. *La* *chiav-e* *è* *su-l* *tavol-o.*
DEF.SG.F key(F)-SG be.PRS.3SG on-DEF.SG.M table(M)-SG
'The key is on the table.'

b. *C'è* *una* *chiav-e* *su-l* *tavol-o.*
there$_{EXPL}$-be.PRS.3SG INDEF.SG.F key(F)-SG on-DEF.SG.M table(M)-SG
'There is a key on the table.'
(Creissels 2019a)

• HAVE-ILP CONSTRUCTIONS are constructions in which the role of copula is fulfilled by a word that is not found in the corresponding plain-locational clauses but is also used as a 'have' verb in a transpossessive construction (see Section 4.6.1) and as an existential predicator. The Figure phrase is encoded like the possessee in the possessive use of this verb, i.e. like the patient in transitive predication. The syntactic position occupied by the possessor phrase in possessive predication is either left empty (43) or occupied by an expletive element (44).

(43) Fourteenth-century Tuscan (Romance, Indo-European)
Nelle *part-i* *di* *Grecia* *ebbe* *un* *signor-e.*
in.DEF.PL.F part(F)-PL of Greece have.PST.3SG INDEF.SG.M sir(M)-SG
'Somewhere in Greece there was a sir.'
(Ciconte 2013)

(44) Alemannic (Germanic, Indo-European)
Es *hot* *Rössr* *voram* *Hus.*
3SG.N have.PRS.3SG horses in.front.of.the house
'There are horses in front of the house.'
(Czinglar 2002)

• THERE_HAVE-ILP CONSTRUCTIONS share with *have*-ILP constructions the use of a copula also found as a 'have' verb in a transpossessive construction (Section 4.6.1), and with *there_be*-ILP constructions the use of a locative expletive.

(45) Occitan (Romance, Indo-European)
I *a* *un* *can* *dins* *l'=òrt.*
there$_{EXPL}$ has a dog in the=garden
'There is a dog in the garden.'
(Creissels 2019a)

• PROPRIETIVE-ILP CONSTRUCTIONS are found in some of the languages with the proprietive type of predicative possession (see Section 4.6.1 below) and can be analyzed as resulting from the impersonalization of the proprietive verbs found in this type of predicative possession.[20] For example, Kalaallisut (Yupik-Inuktitut-Unangan) has a suffix *-qar*, converting nouns into

[20] The term used by Creissels (2019a) for this type of ILP construction was "incorporated-Figure-ILP construction", and this was also the term we used in the Position Paper sent to our contributors at the beginning of this project. However, the editorial work on this volume made us aware of the shortcomings of this term, which we propose to replace with "proprietive-ILP construction".

intransitive proprietive verbs assigning the role of possessor to their argument, encoded as a noun phrase in the absolutive case and cross-referenced on the verb. In the corresponding ILP construction, a proprietive verb derived from the noun referring to the Figure is invariably in the third person singular, and no absolutive noun phrase is present.

(46) Kalaallisut (Yupik-Inuktitut-Unangan)
Nillataartarfim-mi *tallima-nik* *manne-qar-puq.*
fridge-LOC five-INS.PL egg-PROPR-INDIC.3SG
'There are five eggs in the fridge.'
(Van Geenhoven 1998: 27)

• BE_WITH-ILP CONSTRUCTIONS are inverse-locational predication constructions in which the Figure is encoded like comitative adjuncts in verbal predication or like the companion phrase in comitative predication. The languages with such constructions have the comitative-possessee type of predicative possession (see Section 4.6.1 below). In (47a), a locative class marker *ku* occupies the position normally occupied by a subject index referring to an individual whose relationship to a companion is predicated, or to a possessor, like 'teacher' in (47b).

(47) Swahili (Bantu, Benue-Congo, Niger-Congo)
a. *Ku* *na* *mgeni* *nyumba-ni.*
cl17 with cl1.stranger cl9.home-LOC
'There is a stranger at home.' (Lit. 'There (is) with stranger at home.')

b. *Mwalimu* *a* *na* *wanafunzi* *wengi.*
cl1.teacher cl1 with cl2.student cl2.many
'The teacher has many students.' (Lit. 'Teacher he (is) with many students.')
(Creissels 2019a)

• IT_BE-ILP CONSTRUCTIONS (48a) are formally similar to the constructions used in the same language to categorize a contextually salient referent (48b) and only differ in the presence of a locative expression.

(48) Icelandic (Germanic, Indo-European)
a. *Það* *eru* *mys* *í* *baðkerinu.*
that are mice in bathtub
'There are mice in the bathtub.' (Lit. 'That are mice in the bathtub.')
b. *Það* *er* *kirkja.*
that is church
'That is a church.'
(Neijmann 2001; Freeze 2001)

• ILP CONSTRUCTIONS INVOLVING A SYNCHRONICALLY UNANALYZABLE ELEMENT NOT FOUND IN THE CORRESPONDING PLAIN-LOCATIONAL CLAUSES include a word or clitic (such as *est'* in (49b)) that constitutes their distinctive element and cannot be analyzed synchronically as resulting from the addition of a locative expletive to the corresponding plain-locational construction or from impersonalization of a 'have' verb.

(49) Russian (Slavic, Indo-European)
a. *Derevnja za goroj.*
village behind hill.INS
'The village is behind the hill.'
b. *Za goroj est' derevnja.*
behind hill.INS ILP village
'There is a village behind the hill.'
(Creissels 2019a)

According to Creissels (2019a), the distribution of the types of ILP constructions in the world's languages can be summarized as follows:

– Probably more than half of the world's languages lack an ILP construction involving dedicated morphological material.
– None of the types of ILP constructions is evenly distributed across language families and areas, but two of them have a particularly wide distribution at the world level: have-ILP constructions and ILP constructions involving a synchronically unanalyzable element not found in the corresponding plain-locational clauses.
– *There_be*-ILP constructions are common among Romance, Germanic and Bantu languages but relatively rare elsewhere.
– *Be_with*-ILP constructions are relatively common among Bantu languages and, to a lesser extent, among Chadic languages but very rare elsewhere.
– The other three types (*proprietive*-ILP, *there_have*-ILP and *it_be*-ILP constructions) are rare and show no concentration in particular areas or families.

Section 5.1 will briefly address the topic of specificity/definiteness, which is often raised in connection with the distinction plain- vs. inverse-locational predication.

4.4.3. Existential predication

As a rule, the essential elements of existential clauses are a predicator (in the sense of role-assigning element) and an NP expressing the role of existent, and the decision to analyze existential clauses as instances of verbal or non-verbal predication depends on the morphological characteristics of the existential predicator (on existential predication, see Sarda and Lena 2023).

Existential predicators (either verbal or non-verbal) may be words also used as copulae in locational clauses. For example, in Latin, *est* acts as an existential predicator in *Deus est* 'God exists', but as a copula in *Ubi est Deus tuus?* 'Where is your God?'. It may also happen that existential clauses are formally undistinguishable from locational clauses but include a locative expression (most commonly a spatial adverb 'there' or a phrase 'in/at it') interpreted as an expletive devoid of any reference, as illustrated by example (50) from Mandinka.

(50) Mandinka (Central Mande, Mande)
a. *Fàatú lè bé jěe.*
Fatou FOC COP there
'It's Fatou who is there.' (Locational)

b. *Ñòo-síifáa fùlá lè bé jěe.*
millet-kind two FOC COP there$_{EXPL}$
'There exist two kinds of millet.' (Existential)

However, not all existential predicators can also be used in prototypical inverse-locational clauses. Conversely, the use of existential clauses formally related to inverse-locational clauses may be variously limited by semantic conditions. For example, in English, *there is* and *there exists* are sometimes interchangeable as existential predicators, as in *There are* / *exist two ways of doing that*, but this interchangeability does not extend to prototypical inverse-locational clauses (i.e. to clauses referring to episodic spatial relationships between Figures having the ability to move and Grounds occupying a fixed position in space), cf. *There is a cat in the tree* / **There exists a cat in the tree*. Conversely, in English, the existential use of *there be* is bound by semantic conditions, resulting, for example, in *There is God* not being synonymous with *God exists* (although perfectly possible in some contexts).

Clauses expressing existence with implicit reference to the whole universe of discourse can be viewed as prototypical existential clauses, and there is considerable cross-linguistic variation in the precise range of meanings expressed by the constructions available to express prototypical existence and those underlying prototypical inverse-locational clauses, and in the cut-off points separating their respective domains. In particular, not all the words fulfilling the role of copula in inverse-locational clauses can also act as existential predicators, and not all the words that can be used as existential predicators can also be used in prototypical inverse-locational clauses.

In fact, the competition between various existential predicators in a given language and their possible relationships to inverse-locational predication is a largely understudied question, and it is not easy to retrieve the relevant data from descriptive grammars since the common practice of using "existential" as a label for inverse-locational clauses does not encourage grammar writers to provide the detailed and precise data that would be needed to develop a typological approach.

Interestingly, an utterance reduced to a noun phrase may be interpreted as an existential clause in some languages. For example, Chung and Ladusaw (2003: 50) observe that "in modern Maori, affirmative existential sentences look as though they consist simply of an indefinite noun phrase" and go on to state that such existential clauses are most plausibly analyzed as involving a null existential predicator taking the lone indefinite NP as its argument. This, however, raises theoretical problems that are beyond the scope of this study. A similar situation is described for Tupian by Dietrich (this volume; cf. also Bertinetto, Ciucci, and Farina 2019: 155).

4.5. Ostension

All languages have some way to build ostensive sentences, typically by means of demonstratives or deictic locative adverbs. However, not all have OSTENSIVE MARKERS, i.e. dedicated grammatical words or expressions acting as the core of clauses aiming to draw the addressee's attention to the presence of some entity in the situation within which the speaker-addressee interaction occurs (speech situation). Examples are French *voici*, Italian *ecco*, Russian *vot*, etc. These elements fulfill, therefore, a predicative function.

Ostensive markers are more commonly called "presentative particles" (Petit 2010), but this term is ambiguous in two respects: on the one hand, "presentative" is sometimes used as an equivalent of "existential", and, on the other hand, the label "presentative particle" is sometimes used for words that have a different distribution (in particular, for interjections).[21]

Ostensive markers entail meanings typically expressed by non-verbal predication: identification of a referent and presence of a referent at some place. However, the deictic component of their meaning and the particular illocutionary force they carry explain the specific syntactic constraints that characterize ostensive clauses. The referent of the noun phrase combined with an ostensive marker must be located in the speech situation, and ostensive clauses can be neither negated nor questioned since their function is to draw the addressee's attention to a perceivable referent/fact. In this respect, some similarities between ostensive and exclamatory clauses can be recognized.

For the sake of the present volume, only dedicated ostensive markers are considered. However, as said above, ostensive constructions do not necessarily involve dedicated and synchronically opaque ostensive markers. On the one hand, as illustrated by English (*Here is my house*, *Here are the main changes made*), ostensive clauses may be variously related to locational predication. On the other hand, nominal predication with a demonstrative in the role of argument (*That's my house*) is a possible way of expressing ostension. For example, in Tswana (Bantu), the usual way of expressing 'Here is the room where you will sleep' is a sentence whose literal meaning is 'The room where you will sleep, it is this one', which is an identity predication.

(51) Tswana (Bantu, Benue-Congo, Niger-Congo)

Ǹtɬɔ̀	*é*	*ǃlɔ́-tɬáá-rɔ̀bálá-ŋ̀*	*mó*	*χɔ́-jɔ̀nɛ́,*	*kɪ̂*	*è.*
room(cl9)	REL.cl9	sI:2PL-FUT-sleep-REL	in	LOC-PRO.cl9	COP	DEM.cl9

'Here is the room where you will sleep.'

The imperative of verbs 'see' or 'look' is also a common way of expressing ostension, and a possible source of ostensive markers, as illustrated by French *voici* / *voilà*. Creissels (2017) discusses the grammaticalization path: IMPERATIVE OF A VERB 'SEE' OR 'LOOK' > OSTENSIVE MARKER > COPULA, for which Mande languages provide particularly compelling evidence.

4.6. Possessive predication

Two types of predicative possession can be recognized, corresponding to the two possible perspectivizations of the possessive relationship: either from Possessor to Possessee (e.g. *I have a book*) or from Possessee to Possessor (e.g. *The book is mine*). This latter type is much less frequent in discourse and cognitively marked in the sense that the perspectivization of the possessive relationship it encodes reverses the natural saliency hierarchy between Possessor and Possessee (since, contrary to possessees, possessors are typically human). It can, therefore, be conveniently labeled INVERSE-POSSESSIVE PREDICATION,[22] as contrasted with PLAIN-

[21] Ostensives are called "presentative demonstratives" by Killian (2022), who identifies them in over 100 languages out of a sample of 1,146 languages.

[22] The term APPERTENTIVE has been proposed by Haspelmath (2025) for this type of predicative construction. However, this label is also used, mainly in the literature on Nilotic languages, for noun forms fulfilling the role of head in the adnominal possession construction (also designated as "construct forms").

POSSESSIVE PREDICATION, in which the perspectivization of the possessive relationship respects the natural saliency hierarchy.

4.6.1. Plain-possessive predication

As a rule, languages have a limited number of predicative constructions (often just one) available to express a relatively wide range of possessive relationships with the unmarked perspective "from Possessor to Possessee". There is considerable cross-linguistic variation in the alignment of the constructions expressing plain-possessive predication with other semantic types of predication, and not all can be analyzed as instances of non-verbal predication. We will return to this point at the end of this section.

Heine (1997) and Stassen (2009) constitute the most detailed and comprehensive accounts of the typology of predicative possession published so far. Although they differ in important respects, they agree on the types of predicative possession that can be identified in the world's languages.[23] Apart from definitional and terminological issues (see Chapter 33), the main difference between the typology of predicative possession sketched in this section and those proposed by Heine and Stassen is that the so-called "Topic Possessive" type or "Topic Schema" is not retained as a possible basic type of predicative possession. Readers are referred to Chappell and Creissels (2019) for a detailed discussion of this point.

With few exceptions, there is no difficulty in identifying the possessive predication constructions found in the languages of the world as belonging to one of the following three broad types:

– the possessor and the possessee are the A and P terms of a transitive construction;
– the possessor is the S term of an intransitive construction (the S-POSSESSOR type);
– the possessee is the S term of an intransitive construction (the S-POSSESSEE type).

4.6.1.1. Possessor and possessee coded as the A and P terms of a transitive construction

Example (52b), to be compared to a typical transitive clause such as (52a), illustrates this type, which constitutes an instance of verbal predication.

(52) Belarusian (Slavic, Indo-European)
a. *Ën* *kupiŭ* *mašynu.*
3SG.M buy.PST.SG.M car.ACC
'He bought a car.'
b. *Ën* *meŭ* *mašynu.*
3SG.M have.PST.SG.M car.ACC
'He had a car.'
(Mazzitelli 2015)

In the Position Paper distributed among the authors, this type was designated as the TRANSPOSSESSIVE type, but one may have reservations about this term since transitive predicative possession constructions with the possessee encoded as A and the possessor as P, although

[23] For a formal analysis of the different types of predicative possession identified in the typological literature, see Myler (2016).

very rare cross-linguistically, are nevertheless attested. We return to this issue in the final chapter of this book.

4.6.1.2. The S-possessor type

Two main subtypes of the S-possessor type can be identified. In the PROPRIETIVE type, the possessor is the sole argument of a proprietive predicate (either a verb (53), a noun (54) or an adjective (55)) derived from the noun designating the possessee.[24]

(53) Kalaallisut (Yupik-Inuktitut-Unangan)
Angut taana illu-qar-puq.
man that house-PROPR-IND.3SG
'That man has a house.' (Lit. 'This man is house-owning.')
(Van Geenhoven 1998: 25)

(54) Nahuatl (Aztecan, Uto-Aztecan)
Ni-cal-ê.
1SG-house-PROPR
'I have a house.' (Lit. 'I am a house-owner.')
(Launey 1981)

(55) Old Zamuco (Zamucoan)
y-iterepe-tie *âñe-rac.*
1SG.POSS-blanket-M.SG.ARG frayed.edge-PROPR[M.SG.PRED]
'My blanket has frayed edges.' (Lit. 'My blanket is frayed-edge-owning.')
(Ciucci, Forthcoming)

In the COMITATIVE-POSSESSEE type, the possessee is coded like comitative adjuncts in verbal predication, as in (56).

(56) Hausa (West Chadic, Chadic, Afroasiatic)
Yārò̀ yanà̀ dà fensìr̃.
boy 3SG.M.ICPL with pencil
'The boy has a pencil.' (Lit. 'The boy is with pencil.')
(Newman 2000: 222)

4.6.1.3. The S-possessee type

The S-possessee type can be further divided into two subtypes. In the OBLIQUE-POSSESSOR type, the possessee phrase shows no particular marking, whereas the possessor shows some kind of oblique marking (adessive, as in (57b), to be compared with (57a), comitative, benefactive, etc.).

[24] In the Position Paper that we sent to our contributors at the beginning of this project, the term suggested for this type was INCORPORATED-POSSESSEE type, but this term may be misleading, since proprietive constructions do not involve incorporation in the usual sense of this term and can only have a historical relationship with incorporation.

(57) Belarusian[25] (Slavic, Indo-European)

a. *Mašyna byla kalja jaho.*
car be.PST.SG.F near 3SG.M.GEN
'The car was near to him.'

b. *U jaho byla mašyna.*
at 3SG.M.GEN be.PST.SG.F car
'He had a car.' (Lit. 'At him was a car.)'
(Mazzitelli 2015)

In the MODIFIED-POSSESSEE type, illustrated in (58),[26] the possessee is syntactically the argument of an existential predicator, and the possessive interpretation of the construction relies on modification of the possessee, with two variants: either the possessor is cross-referenced on the possessee through the same indexes as in the adnominal possession construction, literally "Possessor his-Possessee exists", or the possessor is not cross-referenced on the possessee but forms with it a phrase whose internal structure is that of the adnominal possession construction, "Possessor's Possessee exists".

In the variant with the possessor cross-referenced on the possessee, the possessor phrase is most commonly coded as an unflagged topic, as in (58).

(58) Vitu (Oceanic, Austronesian)
Matabunu, vazira vuluk-a vona.
snake long.ago hair-3SG EXIST
'Formerly snakes had fur.' (Lit. 'The snake, formerly its hair existed.')
(van den Berg and Bachet 2006: 144)

However, in the same type of construction, the possessor phrase may also show some kind of overt flagging, as in (59). Note that this example clearly shows that, when the possessor is cross-referenced on the possessee, the possessor phrase itself is not necessarily adjacent to the possessee.

(59) Hungarian (Ugric, Uralic)
Nek-em azonban van néhány kérdés-em.
DAT-1SG however be.PRS.3SG a.few question-1SG
'However, I have a couple of questions.' (Lit. 'However, to me is a couple of questions'.)

Finally, (60) illustrates the cross-linguistically rare variant of the modified-possessee type in which the possessor is not cross-referenced on the possessee but forms with it a phrase whose internal structure is that of the adnominal possession construction.

[25] The Belarusian possessive constructions illustrated in (52b) and (57b) do not have the same range of uses but, for many semantic types of possession, both are available without any difference in meaning.
[26] In the Position Paper, sent to our contributors at the beginning of this project, we called this type GENITIVE-POSSESSOR (cf. Creissels 2019: 60).

(60) Tuvaluan (Oceanic, Austronesian)

Koo	*isi*	*se*	*maafaufauga*	*o*	*te*	*kau*	*fai*	*gaaluega*
INC	exist	INDEF	idea	of	DEF	group	do	work

kee	*toe*	*ffoki.*
SBJ	again	return

'The workers had the idea that they'd return.' (Lit. 'An idea of the group existed...')
(Besnier 2000: 134)

Example (61) illustrates the same kind of construction in a language (Maori) in which positive existential clauses coincide with indefinite NPs, cf. §4.4.3.

(61) Maori (Oceanic, Austronesian)

He	*waka*	*t-ō*	*Rei.*
INDEF	canoe	SG-of	Rei

'Rei has a car.' (Lit. 'A car of Rei (exists).')
(Harlow 1996: 24)

4.6.1.4. Concluding remarks on plain-possessive predication

As regards the relationship between types of plain-possessive predication and general morphosyntactic types of predicative constructions, one can propose the following conclusions:

- The type characterized by the coding of the possessor and the possessee as the A and P terms of a transitive construction is an instance of verbal predication.
- The proprietive type belongs to verbal predication if the proprietive derivate acting as the predicate is a verb, to non-verbal predication if it is a noun or an adjective.
- The comitative-possessee type is an instance of the adverbial type of non-verbal predication with the possessee included in the predicate phrase.
- The oblique-possessor type is an instance of the adverbial type of non-verbal predication with the possessor included in the predicate phrase.
- The modified-possessee type may be an instance of verbal or non-verbal predication, depending on the verbal or non-verbal nature of the existential predicator.

Concerning the distribution of the types of predicative possession across language families and geographical areas, two types are particularly widespread: the transpossessive type (which is not an instance of non-verbal predication) and the oblique-possessor type (which is an instance of non-verbal predication).

4.6.2. Inverse-possessive predication

Inverse-possessive predication commonly involves either a verb such as English *belong* (*This book belongs to me*) or non-verbal predication with a predicate phrase denoting inclusion in the personal sphere of the possessor.

Inverse-possessive predication can always be expressed by a non-verbal predication with a predicate phrase where the possessor is encoded as an adnominal possessor (*This book is my book*). In most languages, the usual expression of inverse-possessive predication involves a

predicate phrase that can straightforwardly be analyzed as the variant of the adnominal possession construction in contexts where the head noun need not be mentioned explicitly. This is in particular the case in English since *mine* in *The book is mine* and *Peter's* in *The book is Peter's* can be analyzed as the reduced form of the adnominal possession constructions *my book* and *Peter's book* in contexts in which the head noun can be retrieved from the context and consequently need not be overtly expressed. Example (62) illustrates the same type of inverse-possessive predication construction in Mandinka.

(62) Mandinka

Ñíŋ	*bàŋkôo*	*mú*	*ǹtèlú*	*lè*	*tâa*	*tí.*
DEM	land.DEF	COP	1PL	FOC	that.of	as

'This land is ours.' (Lit. 'This land is that of us.')

There are, however, exceptions. For example, in French, adnominal possessors are flagged by the preposition *de* (*le livre de Pierre*), whereas the predicate phrase in inverse-possessive predication is introduced by the preposition *à* (*Ce livre est à Pierre*). *Ce livre est de Pierre* (with the preposition used to flag adnominal possessors) is also possible but can only be interpreted as denoting authorship: 'This book was written by Pierre'. Interestingly, no such distinction can be observed in adnominal possession: *le livre de Pierre* 'Pierre's book' may denote any conceivable relationship between a book and a person (including authorship).

5. Recapitulation on some salient parameters in the analysis of non-verbal predication

5.1. Specificity

The parameter of referential SPECIFICITY needs to be considered, however expressed in the given language, since it plays a role in the contrast inclusion vs. identity. The mere contrast of definite vs. indefinite article (where available) may not be sufficient for inferring the contextually appropriate interpretation, as proved by (63c–e):

(63) English (Germanic, Indo-European)

a.	*Doctors are necessary.*	[kind-level, non-specific]
b.	*The doctor is in the office.*	[referentially specific]
c.	*The doctor* [whoever] *is in the office.*	[referentially non-specific]
d.	*A doctor* [whoever] *is in the office.*	[referentially non-specific]
e.	*Mary wants to marry a doctor* [a specific one]	[referentially specific]
f.	*Mary wants to marry a doctor* [whoever]	[referentially non-specific]

The different types of non-verbal predication show different tendencies in their interaction with the specificity parameter, but no straightforward correspondence must be expected between semantic distinctions and specificity/definiteness marking as regulated in the individual languages.

In inclusion (as opposed to identity) predication, the noun in predicative function is non-specific, but in quite a few languages, as already mentioned above, at least in positive clauses,

it is obligatorily in a form analyzed by grammarians as the definite form of nouns based on its use in other contexts, which blurs the distinction between inclusion and identity. In such cases, negation may affect the coding of nouns in predicative role (definite in positive clauses, indefinite in negative clauses).

In inverse-locational predication, there is, in general, a more or less strong tendency for the Figure phrase to be indefinite (as opposed to the preference for definite Figure phrases in plain-locational predication), but such preference is not absolute (cf. French *Il y a le chat de Pierre dans notre jardin*, lit. 'There is Pierre's cat in our courtyard'). In fact, despite abundant literature devoted to this question, the "definiteness effects" in inverse-locational predication are still poorly understood (Creissels 2019: 40, 42–43).

5.2. Negation

Negation must be taken into consideration in the analysis of non-verbal predication since it may involve devices other than standard negation in the sense of Miestamo (2005). In particular, negative copulae that have no formal relationship with the corresponding positive copula are relatively common. Note also that negation may neutralize distinctions obligatorily expressed in positive non-verbal predication.

5.3. Stage-level vs. individual-level properties

In many languages, non-verbal predicative constructions are sensitive to the distinction between stage-level and individual-level properties (or to some related distinctions). For instance, the choice between *ser* and *estar* in Spanish (§3.1), the use of the essive case in nominal predication in Finnish (ex. 8, §2.2), etc. In addition, some languages may have a more or less systematic distinction between temporary and permanent possession.

The distinction between German *da ist* 'there is (temporarily)' and *es gibt* 'there is (permanently)' (lit. 'it gives') is also worth mentioning here.

5.4. Information structure / constituent order

Non-verbal predicative constructions may show a special behavior from the point of view of information structure. For example, in Manding languages, as a rule, focus marking through the focus marker *lè* attached to the right of the focalized phrase is optional, and the focus marker may attach to any noun phrase (and even to the verb). By contrast, in nominal predication, as illustrated in example (34), the focus marker is obligatorily present in positive independent clauses, and it can only attach either to the noun phrase in predicative function or, within the predicative noun phrase, to an adnominal possessor.

5.5. The insertion of non-verbal clauses in complex constructions

The insertion of non-verbal predicative constructions in certain types of complex constructions may require a change in the type of predicative marking. For example, in the *if*/*when*-clauses of Tswana, in contrast to independent clauses, the predicative inflection strategy cannot be used, and an inflected copula is required.

(64) Tswana (Bantu, Benue-Congo, Niger-Congo)

a. *B-ànà* *bá-kó* *sì-kólé-ŋ̀.*
PL-child(cl2) sI:cl2-at SG-school(cl7)-LOC
'The children are at school.'

b. *fá* *b-ànà* *ꜜbá-lí* *kó* *sì-kólé-ŋ̀ ...*
if/when PL-child(cl2) sI:cl2-be at SG-school(cl7)-LOC
'If/when the children are at school, ...'

In Jóola Fóoñi (Atlantic), the non-verb-like copula used in independent clauses expressing locational predication, as in (65a), cannot be used in the corresponding relative clauses, in which it must give way to the participial form of a verb 'be', as in (65b).

(65) Jóola Fóoñi (Joola, Atlantic, Niger-Congo)

a. *Kʊ-ñɔɔl-ɔɔl* *k-ɔɔ-kʊ* *Bɪnjɔna.*
PL-child(clBK)-his clBK-COP-clBK Bignona
'His children are in Bignona.'

b. *kʊ-ñɔɔl-ɔɔl* *k-am-mɪ* *Bɪnjɔna*
PL-child(clBK)-his clBK-PTCP.be-ACT Bignona
'his children who are in Bignona'

6. Interim conclusion

In this chapter, we have sketched a general approach to non-verbal predication. We made a conscious effort (in the spirit, for instance, of Basic Linguistic Theory) to avoid discussions that only make sense within particular theoretical frameworks and to concentrate on the definition of a consistent set of descriptive concepts compatible with the diversity that can be observed in the non-verbal predication systems of the world's languages.

The contributions are geographically organized. To pave the way for our contributors, we prepared a questionnaire which itemizes the most salient issues to be considered (see, in the Table of Contents, the end of Part 1 in Volume I and the beginning of Volume II).

The chapters in Part II of this book address the issue from the point of view of individual languages or (in several cases) language families. The contributions are geographically organized, roughly moving from East to West and from North to South. We are aware that the position of Maltese in the Africa section might be regarded as surprising by the Maltese people. The reason for our choice originates from the fact that Maltese, the only Semitic language in our corpus, is closely related to the Arabic varieties spoken in the Maghreb.

In the concluding chapter (*Results and perspectives*), we try and draw further indications, but we are aware that much work remains to be done. There are many more languages in the world that could add highly relevant data. The changes that non-verbal predicative structures undergo over time also need dedicated research.[27] The chapter by Mauri and Sansò is inspired by this perspective. Hopefully, this book will invite further investigations on this fascinating topic.

[27] An example is the volume by Loprieno, Müller, and Uljas (2017), which analyzes the morphosyntactic types of non-verbal predication throughout the diachronic stages of Ancient Egyptian.

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Abbreviations

ACC = accusative
ACT = actualizer[28]
ADESS = adessive
ADVZ = adverbializer
ARG = argument case
CAR = caritive ['without']
cl… = class…[29]
COP = copula
CPL = completive
CSTR = construct
DAT = dative
DEF = definite
DEM = demonstrative
DIM = diminutive
EMPH = emphatic
ESS = essive
EXIST = existential predicator
EXPL = expletive
F = feminine
FOC = focus
FREQ = frequentative
GEN = genitive

[28] In Jóola Fóoñi, actualizers are suffixes found in relative verb forms that characterize the event to which the relative verb form refers as irrealis or realis, and within realis, as having or not a close relationship with the time of utterance.

[29] Generally speaking, in the individual languages whose gender-number agreement system is traditionally described in terms of "classes", the numbers or capital letters used to refer to classes (= gender-number agreement markers) are determined according to language-specific conventions. In Bantu languages, the numbering of classes refers to the correspondence with the reconstructed classes of Proto-Bantu.

HTD = high tone deletion
ICPL = incompletive
ILP = inverse-locational predication
INC = inceptive
INDEF = indefinite
INDIC = indicative
INESS = inessive
INS = instrumental
IRR = irrealis
LOC = locative
M = masculine
N = neuter
NEG = negative
NOM = nominative
PL = plural
POSS = possessive
PRC = prepositional case
PRED = predicative form
PRN = proper name
PRO = pronoun
PROPR = proprietive
PROX = proximal
PRS = present
PST = past
PTCP = participle
REL = relativizer
SBJ = subjunctive complementizer
SG = singular
sI = subject index
TAM = tense-aspect-mood
TR = transitive

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