Nonverbal clause constructions

MARTIN HASPELMATH

Max Planck Institute for Evolutionary Anthropology

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There are about a dozen well-recognized types of nonverbal clause constructions, but the terminology by which these subtypes are known varies widely. This paper gives an overview of the major types and defines each term carefully, from the perspective of general syntax. For a number of well-established concepts that have no corresponding well-established term, I propose novel terms. There are four major predicational types (classificational, attributional, predlocative and appertentive), and four major nonpredicational types (equational, existential, predpossessive, and hyparctic).

1. Overview

This paper gives an overview of clause types that lack a typical verb, as illustrated from English in (1)-(7). Some of the subtypes are often called "copula(r) clauses" (e.g. Declerck 1988; Mikkelsen 2011), but clauses expressing possession such as (6) and (7) ar also included. Perhaps the best-known label for all these clause types is "nonverbal predication" (e.g. Hengeveld 1992; Roy 2013; Overall et al. 2018; Creissels et al. 2023).

Here I define and characterize the main types of nonverbal clause constructions and discuss the terminology used for general and comparative purposes. As elsewhere in general grammar, there is more agreement on the required key concepts than on the technical terms for them, so it seems worth devoting a paper to surveying the concepts and comparing different terminological traditions. The Appendix provides a list of the technical terms with cross-references to the article.

(1) **classificational construction**
    Lee is a baker.

(2) **equational construction**
    Kim is my mother.

(3) **attributional construction**
    The bird is small.

(4) **predlocative construction**
    The bird is on the roof.

(5) **existential construction**
    There is a bird on the roof.

(6) **predpossessive construction**
    I have a boat.

(7) **appertentive construction**
    The boat belongs to me.

The intriguing relations between 'be' and 'have' were observed by Locker (1954) and Benveniste (1960), and there was some philosophy-inspired work on the verb 'be' in

different languages in the 1960s (e.g. Verhaar (ed. 1967-1972), but sustained and systematic work on clause constructions of this type began only with Clark (1978) and Higgins (1973) (with Lyons 1967 as an important precursor). In earlier times, there was a lot of interest in the etymology of copulas, and in copulaless "nominal clauses" (e.g. Meillet 1906) (also called "equational clause"; Sebeok 1943), but an uninterrupted tradition of cross-linguistic work only started with Hengeveld (1992), Heine (1997) and Stassen (1997).

In this paper, I use the cover term NONVERBAL CLAUSE CONSTRUCTION for (1)-(7), rather than "nonverbal predication", because not all of the construction types involve predication, which makes the term "nonverbal predication" less than ideal (see §6 for more discussion of "predication"). But they are all CLAUSE CONSTRUCTIONS, and intuitively they all lack a typical verb. The lack of a verb is not a defining criterion, however, and I simply define the term as the set of construction types in (1)-(7) (or more precisely, the set of construction types tabulated in §13).

For those clause types that have a PREDICATE, the other element is a SUBJECT (e.g. *Lee* in (1), *the bird* in (3), *the boat* in (7)). What a "subject" is may be unclear in other contexts (cf. Foley & Van Valin 1977; Falk 2006), but in clauses with clear nonverbal predicates, this term is not problematic as it is identified by its meaning: It is the argument that is not the predicate.

It should be noted that the general concepts and terms used here are comparative concepts (Haspelmath 2018) and not universal categories that are instantiated in different languages. The constructions of particular languages are defined in language-particular terms, but they often correspond fairly closely to well-known cross-linguistic types, so that it is very useful to have a general understanding of the most important types.

2. Duonominal constructions: classificational and equational

The most salient type of nonverbal clause construction is the DUONOMINAL type in which there are two nominal expressions that are put in some kind of correspondence. This type has two well-known subtypes, which are here called CLASSIFICATIONAL and EQUATIONAL clauses (already seen in (1)-(2) above). We see more examples of these two types in (8)-(10). Here and below, the copula (or other atypical verb) is printed in boldface.

(8) Lezgian (Nakh-Dagestanian; Haspelmath 1993: 311)
    a. classificational
        Зи буба кешиш я.
        *Zi buba kešiš **ja**.*
        my father priest COP
        'My father is a minister.'

    b. equational
        Ви ктаб им я.
        *Wi ktab im **ja**.*
        your book this.one COP
        'Your book is this one.'

(9) Welsh (Borsley et al. 2007: 130)
    a. classificational
        ***Mae** Caerdydd yn ddinas hardd.*
        be.PRS.3SG Cardiff PRED city beautiful
        'Cardiff is a beautiful city.'

   b. equational
    Caerdydd **yw**   *prifddinas*   *Cymru.*
    Cardiff   be.PRS.3SG   capital   Wales
    'Cardiff is the capital of Wales.'

(10) Egyptian Arabic (Eid 1991: 41)
   a. classificational
    علي   مدرس
    ʕAli   *mudarris*
    Ali   teacher
    'Ali is a teacher.'

   b. equational
    محمد هو علي
    Miħammad   **huwwa** *ʕAli.*   (**Miħammad Ø ʕAli.*)
    Mohammed   COP   Ali
    'Mohammed is Ali.'

The earlier literature does not provide a suitable cover term for these two types of clauses, so I use the neologism *duonominal* here. Classificational and equational clauses have the same coding properties in most languages, using the same copula and the same argument marking, as in Lezgian in (8) and in most European languages. Languages like Welsh and Arabic, where there are differences, are less common (Stassen 1997: 105). However, the two types are semantically clearly different: Classificational clauses express the membership of the (definite) subject referent in the class denoted by the (indefinite and nonreferential) predicative nominal, while equational clauses in some sense "equate" the two definite nominals. The meanings conveyed by equational clauses will be discussed below in §9.

The terminology used in the earlier literature is fairly heterogeneous. My use of the term *classificational* is based on Lyons (1968: 389), Hengeveld (1992: 81) and Stassen (1997: 12-13; 105), who distinguish *class-membership clauses* from *identificational clauses* (similarly Curnow 2000; Nordlinger & Sadler 2007: 143-144). But for the other type, I prefer EQUATIONAL as a cover term (see also Croft 2022).

Duonominal clauses are sometimes known as clauses with a "predicate nominal" or "nominal predicate" (e.g. Payne 1997: Ch. 6), and this term is quite appropriate for the classificational subtype. Classificational clauses can be said to consist of a (definite) SUBJECT and an indefinite and nonreferential CLASSIFICATORY NOMINAL. The classificatory nominal can be said to be the nominal predicate, analogous to the adjectival predicate in the attributional subtype and the locative predicate in the predlocative subtype. Classificational clauses are therefore often called PREDICATIONAL (e.g. Higgins 1973; 1979; Mikkelsen 2005).

Equational clauses, too, are often subsumed under "non-verbal predication", but it is not clear that they can be said to contain a predicate. According to Stassen (1997: 12), predication is "the application of a general concept to a particular entity", and this is not (necessarily) the case in equational clauses (Stassen 1997: 108). For this reason, the entire domain of nonverbal clause constructions is not called "non-verbal predication" in this paper, as I noted earlier. (See also the discussion of "predicate" in §6 below, where I will conclude that existential and predpossessive clauses, seen in (5) and (6) above, cannot be said to contain a predicate either.)

Classificational clauses are here defined as clauses containing a definite subject nominal and an indefinite classificatory nominal, as in the (a) examples of (8)-(10). One might also want to include clauses with a specific indefinite subject such as (11a), or clauses where a generic nominal is included in a larger class, as in (11b).[1] But these types of clauses are fairly marginal and are thus left aside here.

(11) a. (specific indefinite subject)
      *A friend of mine **is** a painter.*

      b. (inclusion of a class in a class)
      *Whales **are** mammals; a whale **is** a mammal.*

Equational clause constructions fall into four main subtypes that are briefly illustrated in (12) and will be discussed further below (§§9-10).

(12) a. **characterizational clause**
      *Kim **is** the new statistics professor.*

      b. **specificational clause**
      *The new statistics professor **is** Kim.*

      c. **deictic-identificational clause**
      *That **is** my brother.*

      d. **tautotic clause**
      *Dr Jekyll **is** Mr Hyde.[2]*

Only the last type, called TAUTOTIC here (derived from Greek *tautótēs* 'identity'), is semantically simple and corresponds very closely to the literal meaning of "equation": Tautotic clauses express the identity of (what appear to be) two individuals known by different names (this type is often called "identity statement", and sometimes "equative clause"). They do not occur often in language use but have been important in philosophical logic and semantics.

The other three subtypes of equational clauses are semantically less easy to describe and have been extensively discussed in the generative literature in the tradition of Higgins (1973) (e.g. Moro 1997; Mikkelsen 2005; den Dikken & O'Neill 2017). They have not been treated very widely from a broadly comparative perspective yet (but see Hengeveld 1992: 82-91; Stassen 1997: 100-120). Characterizational and specificational clauses are discussed further in §9, and deictic-identificational clauses in §10.

3. Attributional constructions

An ATTRIBUTIONAL CLAUSE CONSTRUCTION expresses the attribution of a property to a subject referent, as already seen in (3) above. There are three more examples in (13)-(15).

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[1] Lyons (1968: 389) noted that the "distinction between class-membership and class-inclusion does not appear to be of any syntactic significance in most languages" (see also Declerck 1988: 1). In fact, I do not know of any language where inclusion of a class in a broader class is treated in a special way.
[2] This example alludes to a famous 1886 novella by the Scottish writer Robert Louis Stevenson (*Strange Case of Dr Jekyll and Mr Hyde).*

(13) Polish
      *Marek **jest** uprzejmy.*
      Marek   is   polite
      'Marek is polite.'

(14) Fongbe (Kwa; Lefebvre & Brousseau 2002: 349)
      *Kòkú **ɖò**   ɖàgbè.*
      Koku COP   good
      'Koku is good.'

(15) Cantonese (Matthews & Yip 2011: 179)
      Léih go   jái   hóu gōu.
      you   CLF   son   very tall
      'Your son is tall.'

The property words used in attributional constructions are typically called "adjectives", but in quite a few languages, they behave much like typical verbs and are treated as "stative verbs". This is the case, for example, in Cantonese, where words like *gōu* 'tall' are often said to be verbs (see also Francis & Matthews 2005). In the present context, this difference is not relevant, and clauses with "stative verb predicates" are regarded as attributional clauses as well. More generally, for comparative purposes, it is best to use the terms *noun*, *verb* and *adjective* in a notional sense (Stassen 1997: 14; Pustet 2003: 28; Haspelmath 2022), so we may say that all of (13)-(15) contain adjectival predicates.[3]

The term *attributional clause* is not widely used in the earlier literature, but it is quite transparent as linguists often talk about "attributing a property", and Dixon (2010: 159) says that clauses with predicative adjectives express an "attribution" relation.

It is sometimes useful to have a cover term for classificational and attributional constructions, which are semantically similar, and here I propose ASCRIPTIVE CLAUSE: Both types of clauses ascribe a concept to the subject referent (cf. Lyons 1977: 148, where the term *ascriptive* is used in a similar sense).

4. Predlocative and existential constructions

A PREDLOCATIVE CONSTRUCTION is a clause construction in which a definite subject argument is said to be located in a place expressed by a locative phrase, as in (16)-(17). The subject or located element is also called the LOCATUM (or more specifically, the PREDLOCATUM).

(16) Wambaya (Mirndi; Nordlinger 1998: 177)
      Janji   inyaga   jalyu-ni!
      dog.NOM that.NOM bed-LOC
      'The dog is on the bed!'

(17) Koromfe (Gur; Rennison 1997: 65)
      *Də **wɛ̃**   dããnɛ.*
      he   LCOP   at.home
      'He is at home.'

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[3] This usage is thus different from that of Dryer (2007: 227) and Overall et al. (2018: 3), who do not want to include predicative "adjectival verbs" under nonverbal predication. However, these authors do not give a rigorous cross-linguistic definition of "adjective", and allow different criteria in different languages.

Such clauses are often simply called "locative clauses", but there is another type that also contains a locative phrase and a locatum but in which the locatum is not a definite subject: the existential construction.

An EXISTENTIAL CLAUSE CONSTRUCTION is a clause in which an indefinite and discourse-new nominal phrase (the EXISTENT) is said to be in some location that is generally expressed by a locative phrase. We see three examples of existential clauses in (18)-(20).

(18) Logudorese Sardinian (Bentley et al. 2015: 7)
      *In   custu   istradone nch'   **at**   una   creža.*
      in   this   road   there have.3SG a   church
      'In this road there is a church.' (Lit. 'It there has a church in this road.')

(19) Aguaruna (Chicham; Overall 2018: 154)
      *Utuŋchat   **a-yi**   nuŋka=num.*
      problem   exist-PST.3SG.DECL   land=LOC
      'There was a problem in the land.'

(20) Wambaya (Mirndi; Nordlinger 1998: 177)
      Garnguji   julaji-rdarra   gayangga   darranggu-ni.
      many.NOM   bird-GROUP.NOM   high   tree-LOC
      'There are lots of birds up in the trees.'

The existent is often called *pivot* (following Milsark 1977), and Creissels (2019) calls it the *figure* (contrasting with the *ground* expressed by the locative phrase). As existential clauses always express location, the existent can also be said to be a type of LOCATUM, like the predlocatum.

In English and several Romance languages, existential clauses have a special form, making use of a PROLOCATIVE FORM ("pronominal locative") such as English *there*, French *y*, Italian *ci* (and Sardinian *nche*, seen in (18)). But this is not taken as definitional here, and there are many languages where predlocative and existential clauses have very similar shapes, as seen, for example, in Wambaya: (16) and (20) both lack a copula and are formally indistinguishable.

In some languages, there is a clear difference between temporary location and permanent presence of the discourse-new nominal. A well-known example is German, which uses the special expression *es gibt* (lit. 'it gives') only for permanent presence of the existent.

(21) German
      a. **temporary location of existent**
          *Auf   dem   Tisch   **stehen** Blumen.*
          on   the   table   stand   flowers
          'There are flowers on the table.' (Cf. *?*Auf dem Tisch gibt es Blumen.*)

      b. **permanent presence of existent**
          *In   Thailand   **gibt**   es   Tiger.*
          in   Thailand   gives   it   tigers
          'There are tigers in Thailand.' (Cf. *?*In Thailand sind Tiger.*)

Creissels (2019) provides a very rich discussion of existential constructions in the world's languages, but restricts his attention to temporary-location existentials, which he calls INVERSE-LOCATIONAL clause constructions.[4]

Existential clauses have been discussed much more widely than predlocative clauses because of their many peculiar properties (e.g. Lyons 1967; Freeze 2001; Veselinova 2013; McNally 2016). There will be more discussion of the delimitation between predlocative and existential clauses in §12 below.

5. Predpossessive and appertentive constructions

PREDPOSSESSIVE ('I have a boat') and APPERTENTIVE ('The boat belongs to me') clause constructions are analogous to existential and predlocative constructions in that the main difference between them is the definiteness and discourse-givenness of the possessum nominal. The parallelism can be represented as in (22) (inspired by Bickerton 1981 [2016: 215]; Koch 2012: 53; the original observations can be traced to Lyons 1967 and Clark 1978).[5]

(22)

	possessional	locational
definite locatum/possessum	APPERTENTIVE *(The boat is mine.)*	PREDLOCATIVE *(The boat is on the shore.)*
indefinite locatum/possessum	PREDPOSSESSIVE *(I have a boat.)*	EXISTENTIAL *(There is a boat on the shore.)*

Note that possessional clauses can take a wide variety of forms, and some of them can look like the corresponding locational clauses in some languages (they might say, for example, 'There is a boat with me' for 'I have a boat'; see (25) from Finnish below). What defines them is their possessional meaning, not the kind of marking that a language uses.

Just as "locative" is not specific enough to designate predlocative clauses (because existential clauses are about location, too), "possessive" is not specific enough, because both appertentive and predpossessive clauses are about possession. For this reason, I introduce the more explicit terms PREDLOCATIVE and PREDPOSSESSIVE here.

When the locatum/possessum is definite, it is clear that the other element is a predicate: a predicative locative phrase, and a predicate appertentive phrase (or APPERTENTUM), respectively. Thus, the term *predlocative* (predicative locative) is fully transparent. But when the locatum/possessum is indefinite and discourse-new, it is not so clear that there is a predicate in the clause (as will be discussed further in §6). So *predpossessive* is not fully transparent, but the term *predicative possession* has been well-established for some

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[4] Creissels (2019: §2.3) finds the term *existential* unsuitable because "pure existence" is often expressed in a different way (e.g. by an ordinary intransitive verb, as in *God exists*), and because location is a crucial component in existential clauses that is not reflected in the term. This becomes evident in negative existential clauses (e.g. *There are no flowers on the table*), where we cannot say that the existence of the existent is denied. These are interesting points to keep in mind, but the term *existential* is well-established, and its lack of full transparency is not a problem if we are careful about defining it. (Below in §12 I propose a special term for "pure existence" clauses: *hyparctic clauses*.)

[5] Creissels et al. (2023) use the terms *plain-possessive* and *inverse-possessive* for predpossessive and appertentive (corresponding to *plain-locational* and *inverse-locational* for predlocative existential; see §12 below). By "inverse", they seem to refer to an unexpected or uncommon combination of definiteness and nonverbal meaning.

time (e.g. McGregor 2001; Stolz 2001; Stassen 2005; 2009), to refer to clauses that express 'have'. The shortened term *predpossessive* can also be contrasted with *adpossessive* (short for *adnominal possessive*, e.g. Haspelmath 2017: 196).

Predpossessive constructions are famous for being expressed by fairly different strategies in different languages (e.g. Heine 1997). In (23)-(25), I illustrate three of the best-known strategy types, using terminology from Creissels (2020). Transpossessive strategies make use of a transitive verb ('have'), compossessive strategies use a comitative flag ('with') on the possessum, and locpossessive strategies use a locative flag on the possessor ('on, at').

(23) ***transpossessive strategy***: Persian
دارم زیادی پول من
*Man pul ziyâde **dâram**.*
I   much money   have.
'I have a lot of money.'

(24) ***compossessive strategy***: Hausa
*Bàlki **ta-nàa** dà kùjèeruu màasu kyâu.*
Balki 3F.SG-be with chairs   having   beauty
'Balki has nice chairs.' (Lit. 'Balki is with nice chairs.') (Abdoulaye 2006: 1122)

(25) ***locpossessive strategy***: Finnish
*Peka-lla **on** auto.*
Pekka-ADESS is car.SG.NOM
'Pekka has a car.' (Creissels 2013: 468; see also (53) below)

The different strategies have been discussed extensively by Heine (1997: 45-76) and especially by Stassen (2005; 2009) (see also Myler 2016), and I will not discuss them further here.

There are also two salient strategies for appertentive clauses (see Stolz & Levkovych 2019). The possessor may carry oblique flagging, as with Russian *prinadležat'* 'belong to' in (26), or it may have a special independent-possessor form such as Spanish *mía* in (27) (see Ye 2020).

(26) ***oblique-possessor appertentive strategy***: Russian
*Mašin-a **prinadležit** Miš-e.*
car-NOM   belongs   Misha-DAT
'The car belongs to Misha.'

(27) ***independent-possessor appertentive strategy***: Spanish
*Esta canasta **es** mía.*
this basket is   mine.
'This basket is mine.' (Stolz & Levkovych 2019: 326)

6. "Predicates" in nonverbal clause constructions

Since Hengeveld (1992), the term *nonverbal predication* has become common as a cover term for most of the constructions that are the topic of this paper, and this term has clear virtues. In earlier times, these constructions were typically called "*be* constructions" (cf. Verhaar (ed.) 1967-1972) or "copula clauses", but these terms are inadequate for the

entire domain because nonverbal clauses often lack a copula, and because predpossessive clauses are not included. An old term for copulaless nonverbal clauses that has been in use since the 19th century, especially for Semitic languages, is "nominal sentence" (e.g. Meillet 1906), but the earlier literature developed no general terms encompassing copula clauses and copulaless clauses.

Thus, for the entire domain illustrated in §1-5 above, the term *nonverbal* seems well-suited, but "predication" presents a problem. In classificational (*Lee is a baker*), attributional (*The bord is small*), predlocative (*The bird is in the tree*), and appertentive constructions (*The boat is mine*), it is clear that there is a subject and a predicate.[6] However, in the other three construction types (equational, existential and predpossessive), this is not clear. Many linguists have of course tried to extend the notions of "subject" and "predicate" to these clauses, too, but no common understanding has emerged. For example, Freeze (2001: 945) claims that the locative phrase is the subject in existential clauses like Russian *V gorode byl doktor* [in town was doctor] 'There was a doctor in town', but many other linguists would insist that the existent must be the subject.

Thus, it is probably best to say that some of the nonverbal clause constructions are PREDICATIONAL (exhibiting a topic-comment structure that corresponds to the traditional "subject-predicate" structure), but others are NONPREDICATIONAL (as is done by Croft 2022).[7] This bifurcation is reflected in Table 1 in §13 below.

One might still want to say that each clause contains a "predication" in a more abstract sense, which combines with various grammatical elements to yield a proposition, and with further elements to yield an illocution (this is how Dik (1997: 291) presents the structure of sentences; his "predication" seems to be similar to Van Valin's (2005: 4) "core"). In this more abstract sense, one could indeed say that the present paper is concerned with the expression of "nonverbal predication(s)".

7. Copulas and existive forms

A salient part of many nonverbal clause constructions is a form that occurs in addition to the nominal or locative phrases, and also in addition to person marking and tense-aspect-mood marking: a COPULA. We saw quite a few copulas in earlier examples, and (28)-(29) show two more copulas.

(28) Gyeli (Bantu)
*Àdà **àà** ngɛ̀lɛ́ǹɛ̀.*
Ada COP.G1 teacher(G1)
'Ada is a teacher.' (Grimm 2021: 440)

(29) Jamaican (English-based creole)
*Fi-dem moni **de** pan di tiebl.*
of-them money LCOP on the table
'Their money is on the table.' (Farquharson 2013)

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[6] In such clauses, it is generally said that the nonverbal predicate is the adjective, the nominal, and the locative phrase *without the copula*, so that there are three elements: the subject, the copula, and the nonverbal predicate. One may also say that the copula is a marker of the predicate and as such is part of it. (Atypically, Dixon (2010: 163) rejects this usage and prefers to treat adjective, nominal and locative phrase as "copula complements", i.e. as kinds of arguments, regarding the copula itself as the predicate.)

[7] Croft (2022) distinguishes three types of information packaging of propositional content: TOPIC-COMMENT packaging ("subject-predicate"), PRESENTATIONAL packaging (found in existential and predpossessive clauses), and IDENTIFICATIONAL packaging (found in specificational clauses).

A copula is best defined as a form that indicates a stative link between the two argument positions of an equational, ascriptive or locational clause (i.e. a predlocative or existential clause). This definition requires six comments.

First, one might suggest that it would be more natural to say that a copula is *any* linking element in a nonverbal clause. However, the 'have' verb in a transpossessive clause (e.g. 23) and the 'belong' element in an appertentive clause (e.g. 26) are never called copulas, so they should not be included. Copulas must be restricted to equational, ascriptive and locational clauses, even though these are not a natural class of clause types (see Pustet 2003).[8]

Second, a copula is defined as a kind of form, and since a form is overt and segmental by definition, this definition excludes the possibility of a "zero copula". It is generally easy to resort to alternative formulations, such as "absence of a copula", which means the same. Abstract zero elements (features that do not correspond directly to any form) are of course often useful in describing languages, but a conceptual system of grammatical comparative concepts must be based on the concept of "a form", and a form must be overt and segmental by definition (see also Haspelmath 2020b: §4 for some discussion of morphs and why there cannot be "zero morphs"). This also means that tonal marking of nonverbal predication, as has been reported for a number of African languages by Gibson et al. (2019: §2.3), does not count as "copula". An example is (30), where the classificational function is signaled by high tone on the first syllable (AUG stands for an article-like "augment" element).

(30) Herero (Bantu; Gibson et al. 2019: §2.3)
　　a. *ò-tjì-havérò*
　　　 AUG-G7-chair
　　　 'chair'

　　b. *ó-tjì-havérò*
　　　 AUG-G7-chair
　　　 'it is a chair'

Third, a form can be affixal, so affixal copulas such as *-y* in (31) from Turkish are included in the definition as well (Creissels et al. (2023) call such forms "copulative affixes"). However, affixal markers that only indicate person-number, tense and so on do not count as copulas; an example is the 2nd person singular suffix *-t* in Erzya in (32). In Bertinetto et al. (2019), such constructions are called PREDICATIVE INFLECTION.[9]

(31) Turkish
　　*Satıcı-**y**-dı-m.*
　　seller-COP-PST-1SG
　　'I was a seller.' (Kornfilt 1997: 57)

(32) Erzya (Uralic)
　　Ist'amo šumbra　ćora-t　di　a　śim-at.
　　such　　wealthy　man-2SG　and　NEG　drink-2SG
　　'You are such a wealthy man and you don't drink.' (Turunen 2011: 148)

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[8] If a general term that comprises copulas, transpossessive 'have', and 'belong' is needed, it is easy to create a new term, e.g. *nonverbative form*.

[9] Bertinetto et al. also note that some languages have the opposite of a copula: nonpredicative marking of nouns, e.g. Akkadian (*šarr-um* 'king', *šar* 'is a king', Bertinetto et al. 2019: 165).

Fourth, copulas express "a stative link", and verbs like *become* which are the dynamic counterparts of copulas are not included. Such verbs can be called SEMI-COPULAS (Hengeveld 1992: 34).

Fifth, copulas may occur in predlocative clauses. Dixon (2010: 160) says that verbs which occur only in predlocative clauses are not copulas, but this does not correspond to actual usage. Authors often talk about "locative copulas" (e.g. the Jamaican form *de* in (29)). It is true that many languages require posture verbs in predlocative verbs, as illustrated by German *stehen* 'stand' in (21a), and these are not normally called copulas, but there does not seem to be a good way of excluding them from the definition.

Sixth, the definition does not say anything about a copula's "verbal" or "nonverbal" nature. Many copulas are quite verb-like by the criteria of individual languages, but these cannot be applied across languages (Haspelmath 2022). Thus, the question whether a copula is verb-like or not is not discussed further here. Some copulas clearly look non-verb-like (e.g. Egyptian Arabic *huwwa* in (10b), which derives from a personal pronoun 'he'), but there are many indeterminate cases.

A special type of element that should also be discussed here is a linking form that is restricted to existential (or predpossessive) clauses, such as Spanish *hay* in (33) or Tagalog *may* in (50) below. I propose the term EXISTIVE for such special forms (called "specialized inverse-locational predicators" by Creissels 2019: 80).

(33) Spanish
Hay   mucha   gente   afuera.
EXV   many   people   outside
'There are many people outside.'

Particularly common are negative existives, e.g. Russian *net* 'there isn't', Turkish *yok* 'there isn't' (Veselinova 2013; Veselinova & Hamari 2022). Note that on the definition of *copula* given above, an existive is a type of copula, and it is best defined as a copula that does not occur outside of existential and predpossessive clauses.

8. Other nonverbal predicate types

In addition to the seven major types that were illustrated in §1 and that are the main topic of this paper, there are a few minor types of nonverbal clauses that should be mentioned here briefly for completeness. They all involve predicational clauses, with different predicate types.

(34) a. benefactive predicate
          *This bike **is** for my daughter.*

      b. comitative predicate
          *My sister **is** with her aunt.*

      c. topicative predicate
          *This book **is** about a treasure hunt.*

      d. temporal-locational predicate
          *The party will **be** on Friday.*

These have not played an important role in the general discussions of nonverbal clauses. Dixon (2010: 160) is one of the few authors who treats benefactive predicates on a par with the other major types. There is no cross-linguistic research about any of these types, as far as I am aware.

9. Equational clauses: Characterizational and specificational subtypes

Among equational clauses, i.e. duonominal clauses with two definite nominals (as defined in §2), the two most widely discussed subtypes are CHARACTERIZATIONAL and SPECIFICATIONAL clauses.[10] They were briefly illustrated in (12a-b) above, and are again illustrated in (35a-b). We will see that the difference between them is best characterized by means of the notions of TOPIC and COMMENT, and of VARIABLE and VALUE (cf. Huddleston & Pullum 2002: 53; Mikkelsen 2011: 1810)

(35) a. **characterizational clause**
          Warsaw$_{\text{VALUE}}$ *is the capital of Poland*$_{\text{VARIABLE}}$.

      b. **specificational clause**
          The capital of Poland$_{\text{VARIABLE}}$ *is Warsaw*$_{\text{VALUE}}$.

Unlike tautotic clauses (like *Dr. Jekyll is Mr. Hyde* in 12d above), which simply equate two individuals, characterizational and specificational clauses combine a value with a variable. In a characterizational clause, the value nominal is the topic and the variable is the comment, so it is appropriate in contexts such as (36a-b). The VALUE NOMINAL can be a name, but the VARIABLE NOMINAL must be a nominal headed by a common noun which serves to *characterize* the referent in a non-exhaustive way.

(36) a. A: *I heard about our new colleague Kim. Do you know more about her?*
          B: *Kim **is** the new statistics professor.* (cf. (12a) above)

      b. A: *I heard about a city called Warsaw. Can you tell me more about it?*
          B: *Warsaw **is** the capital of Poland.* (= (35a); Stassen 1997: 103)

By contrast, in a specificational clause, the variable nominal is the topic and the value is the comment: The clause serves to uniquely SPECIFY the value of a variable. Thus, specificational clauses are appropriate in contexts such as (37a-b), where the variable (the role of statistics professor, the role of capital) is topical.

(37) a. A: *Do you know how the vacancy in statistics was filled?*
          B: *The new statistics professor **is** Kim.* (cf. (12b) above)

      b. A: *I know about Poland, but can you remind me of its capital?*
          B: *The capital of Poland **is** Warsaw.* (= (35b); Stassen 1997: 103)

In English, the topic is usually the precopular nominal and the comment is in postcopular position, so the literature often equates *characterizational* with value-initial copula

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[10] In the tradition of Higgins (1973; 1979) (e.g. Heycock & Kroch 1999; Mikkelsen 2005; den Dikken & O'Neill 2017), characterizational clauses are typically called "predicational", because they are described as consisting of a subject and a predicate. However, ascriptive clauses (classificational and attributional clauses) are predicational, too, so I use the more specific term *characterizational* here (following Kuno & Wongkhomthong 1981; Hengeveld 1992: 82-91).

clauses, and *specificational* with value-final copula clauses. However, the following dialogue is possible in English as well, with (38/B) basically equivalent to (37b/B).

(38)   A: *What is the capital of Poland?*
    B: *WARSAW*ᵥₐₗᵤₑ **is** *the capital of Poland*ᵥₐᵣᵢₐᵦₗₑ.

Here the value comes first, but the context makes it clear that the postposed variable is topical, so we are dealing with a specificational clause.[11]

In most languages, there is no grammatical coding difference between characterizational and specificational clauses,[12] and in fact, a clause can be interpreted as characterizational or as specificational depending on the context. This is the case when both nominals are headed by a common noun and can thus be interpreted not only as values, but also as variables. An example is (39).

(39)   *My best friend **is** the new statistics professor.*

If this occurs in the context "Can you tell me about your best friend, Kim?", it is characterizational, but if it occurs in the context of "I wonder who is your best friend", it is specificational.

The distinction between characterizational and specificational clauses can thus be fairly subtle, which makes it useful to have the cover term *equational* (§2) for duonominal clauses with two definite nominals. But there are a number of cross-linguistic observations that are worth keeping in mind.

First, the "grammatical subject" properties are not uniform in specificational clauses across languages. In English, the precopular variable nominal controls number agreement of the copula verb, but in Portuguese, agreement is controlled by the postcopular value nominal, as seen in (40), where this nominal is plural (Heycock 2012: 211). Portuguese does not allow singular *é* 'is' here, suggesting that the postcopular nominal is the "subject",[13] but the English counterpart does not allow plural *are* (**The problem are your parents*).

(40)   *O   problema   **são**   os   teus   pais.*
    the   problem.SG   COP.PL   the   your   parents.PL
    'The problem is your parents.'

Similarly, Italian shows person agreement controlled by the postnominal value nominal, while French is like English in not allowing this (Moro 1997: 219; Heycock 2012: 211-213).

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[11] Note that in English, the value nominal must be stressed when it is the comment (rather than the topic), regardless of word order. Thus, English has *The capital of Poland is WARSAW* (37b/B), but it is not possible to say **THE CAPITAL OF POLAND is Warsaw.*

[12] The only well-known case of a language that has been said to have two different copulas corresponding to this distinction is Thai (Kuno & Wangkhomthong 1981; Hedberg & Potter 2010).

[13] That the precopular nominal is the predicate has also been concluded by Geist (2007: 95) for Russian, because this nominal can be in the Instrumental case, like predicative nominals in classificational clauses, e.g.

(i)   *Причиной аварии были неисправные тормоза.*
    *Pričin-oj   avari-i   **byl-i**   neispravnye   tormoz-a.*
    reason-INS   accident-GEN   was-PL   broken   brakes-NOM.PL
    'The reason for the accident was broken brakes.'

(41)   a.   Italian
         *Il   colpevole   **sono**   io.*
         the culprit   am   I
         'The culprit is me.'

       b.   French
         *Le   coupable c'   **est**   moi.*   *(*Le   coupable   **suis**   moi.)*
         the culprit   that   is   me   the   culprit   am   I
         'The culprit is me.'

German is like Portuguese and Italian in this regard, not like English or French (Heycock 2012). This split thus cuts across the Romance and Germanic languages, and it makes it difficult to use notions like "subject" or "predicate" in talking about characterizational and specificational clauses in general (recall from §6 that equational clauses are not predicational).

Second, there are a number of "copula-like" contexts where a reversal of value and variable is not possible. With the verb *regard*, English does not allow reversal when the variable nominal is introduced by *as* (seen in 42a), and with *consider*, the copula *to be* is not optional when the variable nominal comes second.

(42)   a.   *I regard Kim as my best friend. / *I regard my best friend as Kim.*
       b.   *I consider Kim (**to be**) my best friend. / I consider my best friend **to be** Kim.*

Third, the variable nominal is treated as an inanimate entity with respect to resumptive pronouns, for example in left dislocation constructions and tag question constructions in English (Mikkelsen 2005: Ch. 5). We thus get contrasts like those in (43) and (44), where the first clause is specificational and the second is classificational. (Mikkelsen would say that the (a) sentences use *that/it* is because the variable noun is "non-referential", or "property-denoting".)

(43)   a.   *The tallest girl in the class, that **is** Mariamu.*   *(*... she is Mariamu)*
       b.   *The tallest girl in the class, she **is** Kenyan.*   *(*... that is Kenyan)*

(44)   a.   *Your best friend **is** Kim, isn't it?*   *(*... isn't she?)*
       b.   *Your best friend **is** a statistician, isn't she?*   *(*... isn't it?)*

Fourth, it appears that in general, value-topic clauses (i.e. characterizational clauses) are less likely to require extra marking, perhaps because variable-topic clauses are rarer and more surprising. We saw that an extra element is required in some specificational contexts in French (*ce* in 41b) and in English (*to be* in 42b). In this regard, they pattern with tautotic clauses, which have been reported to require a copula in languages such as Arabic (Eid 1991; see 10b), Hebrew (Rothstein 1995: 28), and Russian (Geist 2007: 89).[14]

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[14] There is an extensive literature on the semantics of equational clauses which asks whether characterizational and specificational clauses are semantically alike (using "the same copula", with specificational clauses showing "inverted order"; e.g. Mikkelsen 2005) or whether they are semantically different, with specificational clauses being semantically more like tautotic clauses (thus showing "two different copulas", a predicational and a tautotic/identity copula; e.g. Heycock & Kroch 1999). Den Dikken & O'Neill (2017: 33) conclude their review of the various views by noting that the controversies have not been resolved and "very little is beyond debate". Fortunately, these debates are independent of the comparative concepts that are the focus of the present paper.

Another reason why the specificational type is important is that the most typical cleft constructions have the same properties and can be regarded as subtypes of specificational clauses, e.g.

(45) a. *It **is** Kim who now teaches statistics.* (Cf. 37a/B)
b. *What caused the accident **was** broken brakes.* (Cf. (i) in note 11)

Moreover, an understanding of specificational clauses explains the English contrast between masculine/feminine personal pronouns and the neuter *it* in subject position in (46a-b) (Declerck 1983: 209). Other European languages show a similar contrast.

(46) a. [*I know the woman in the photograph:*] *It (*she) **is** Janet!*
b. [*Who is Mr. Arnow? –*] *He (*it) **is** a policeman.*

While (46a) is a specificational clause which presupposes a variable referent as topic, (46b) is a characterizational clause with a value referent as topic. Mikkelsen (2005: §7.2; 2007) proposes that clauses like (46a) should be regarded as "truncated clefts" (*It **is** Janet* [*who is in the photograph*]).

10. Deictic-identificational clauses

Equational clauses in quite a few languages show special properties when one of the nominals is a demonstrative, so I distinguish a special type of deictic-identificational clauses here. In German, for example, we can use the Neuter demonstrative *das* in clauses with a human nominal, as in (47).

(47) *Das* **ist** *meine Schwester.*
  THAT.N is my.F sister(F)
  'That is my sister.'

And in English, the demonstrative *that* can be used without *one* only in such deictic-identificational clauses (cf. *That (one) is my bike.* vs. *I bought that **one** last year).*
  In quite a few languages, there are special PREDICATIVE-IDENTIFYING DEMONSTRATIVES that are only used in such contexts (Diessel 1997; 1999: §4.3; Killian 2021: §5). Diessel cites an example from Pohnpeian, where *met* (demonstrative pronoun) contrasts with *iet* (demonstrative identifier).

(48) Pohnpeian (Oceanic; Rehg & Sohl 1981: 143, 150)
a. *Met pahn mengila.*
  DEM FUT wither
  'This will wither.'

b. *Iet noumw naipen.*
  PRED.DEM your knife
  'This/here is your knife.'

Sentence (48b) can be translated as 'This is your knife' or 'Here is your knife'. Thus, such predicative demonstratives are similar to OSTENSIVE MARKERS such as French *voici* and *voilà,* illustrated in (49). These are special in that they do not occur in negated or interrogative clauses (see also Creissels et al. 2023: §4.5).

(49) *Voilà   Omar.*
       OST   Omar
       'There is Omar/There comes Omar.'

However, elements of this type have not been studied systematically from a cross-linguistic perspective, and quite generally, there has been little research on the peculiarities of nonverbal clauses that include demonstratives.

11. Strategies for existential clauses

Let us now go back to existential and predlocative clauses, which were introduced in §4 but deserve more discussion in this and the next section. Just like predpossessive clauses (§5), existential clauses use a range of fairly different strategies that we want to have specific terms for. Here I mention the four named types in (50)-(53), but more types could of course be distiguished. (These names for strategies are not well-established yet; Creissels 2019 uses different terms.)

(50) ***existive-copula strategy***: Tagalog
       May *mga tao   sa   labas.*
       EXV PL   person LOC   outside
       'There are people outside.' (Sabbagh 2009: 678)

(51) ***transpossessive-existential strategy***: Seychelles Creole
       *Ler i   **annan** koudvan   zot   pa   reste lo   sa   zil.*
       when 3SG have   hurricane they not   stay on   the island
       'When there is a hurricane they don't stay on the island.' (Michaelis & Rosalie 2013)

(52) ***prolocative strategy***: Italian
       Ci   sono *molte montagne in Svizzera.*
       PROLOC are   many   mountains in Switzerland
       'There are many mountains in Switzerland.'

French has a mixture of the latter two types, making use both of *avoir* 'have' and of a prolocative element *y* 'there' (e.g. *il y a beaucoup de montagnes en Suisse* 'there are many mountains in Switzerland'). The last type that I distinguish here is merely characterized by the postposed ordering of the existent, as in (53).

(53) ***existent-postposing strategy***: Finnish
       *Kato-lla   **on** lintu.*
       roof-ADESS is   bird
       'There is a bird on the roof.' (cf. *Lintu on katolla* 'The bird is on the roof.')

According to Creissels (2019: §3.2.2), existent-postposing is a fairly common strategy in the world's languages. Still another strategy will be illustrated in (57) below.

12. Inverse-locational and other existential clauses

In §4 above, I stated that an EXISTENTIAL CLAUSE is a clause in which an indefinite and discourse-new nominal phrase (the locatum) is said to be in some location.[15] This definition of the term *existential clause* corresponds to widespread usage (since Lyons 1967; 1968: §8.4; Clark 1978). A few more examples of existential clauses are given in (54)-(56).

(54) Kukama-Kukamiria (Tupí-Guaraní)
    Emete *ɨkɨratsen   tukini=kuara.*
    exist   kid   hammock=INESS
    'There is a kid in the hammock.' (Vallejos 2016: 345)

(55) Hinuq (Nakh-Dagestanian)
    *Ardel   elu-de   ʔaši   šayt'an-be   **zoq'e-s**=ňen.*
    formerly we-LOC   many devil-PL   be-PST=QUOT
    'Formerly in our village there were many devils.' (Forker 2013: 533)

(56) Moksha Mordvin (Uralic)
    *Pakśa-sa **ajaš**   traktər.*
    field-INESS NEG.EXVtractor
    'There is no tractor in the field.' (Hamari 2022: 269)

In English, not only stereotypical existential clauses of the type *There was a bird on the roof* fall under this definition, but also clauses such as *On the roof was a bird* (often said to involve "locative inversion"), and even *A BIRD was on the roof* in a context when *a bird* is discourse-new.

    Some authors have used the term *existential* in a narrower sense, to refer to a subclass of existential clauses that are "noncanonical" in some way, "whether due to some aspect of their syntax or the presence of a distinguished lexical item (e.g. Spanish *hay*)" (McNally 2016: 212). However, this is not a homogeneous class, because "what is canonical differs from language to language" (as McNally notes), so it is better to use the traditional term *existential* in a broad functional-semantic sense. One can then use a vague description like "special(ized) existential construction" or "dedicated existential" to single out those constructions that are not also used in some other way.

    Creissels (2019) presents a comprehensive world-wide study of one subtype of existential clause, which he calls *inverse-locational predication*. In this type of clause, there is an episodic spatial relationships involving two concrete entities: a figure that has the ability to move, and a ground occupying a fixed position in space, and the clause is perspectivized from ground to figure. Inverse-locational clauses contrast with *plain-locational clauses*, where the perspectivization is from figure to ground (e.g. *The cat is in the tree*). These two types correspond fairly closely to EXISTENTIAL and PREDLOCATIVE CLAUSES, respectively, as defined in this paper. However, there are two differences. First,

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[15] Indefinite and discourse-new nominals are sometimes called "presentative" or "presentational" (e.g. Hengeveld 1992: 118-121; Gast & Haas 2011). One might therefore say that existential clauses are "presentational locational" clauses (cf. also note 6).

Creissels (2019: 41-42) limits the term *inverse-locational* to constructions which are specialized in the sense that they cannot be derived from predlocative constructions by some generally applicable device such as word order or marking for definiteness or topicality. In other words, Creissels' term *inverse-locational* refers to a specific *strategy* (in Croft's 2022 sense) to express the spatial relationship in question. Thus, Creissels would not classify an English sentence such as *A BIRD is on the roof* as inverse-locational, and he notes that in some languages, there are sentences which can have both interpretations. For example, Mandinka always has the order "nominal – copula – locative phrase", regardless of whether the locatum is discourse-new or not, as illustrated in (57). This construction is thus not an inverse-locational construction according to Creissels. But according to the definitions of §4 above, it qualifies both as a predlocative clause (on the first interpretation) and as an existential clause (on the second interpretation).

(57) Mandinka (Mande)
　　　Wùlôo　**bé**　　*yíròo*　　*kótò.*
　　　dog.DET　LCOP　tree.DET under
　　　'The dog is under the tree.' OR: 'There is a dog under the tree.'
　　　(Creissels 2019: 51)

Creissels notes that a large number of languages (probably more than half of the world's languages) lack a (dedicated) inverse-locational construction. For strategies that can express both plain location (= predlocative clauses) and inverse location, Creissels uses the term *general location predication* (2019: 51; 61).

　　A second way in which Creissels' term *inverse-locational* is narrower than *existential* is that he does not include clauses expressing permanent presence, such as the German *es gibt* (lit. 'it gives') construction (recall *In Thailand gibt es Tiger* in (21b) above). Koch (2012) refers to existential constructions expressing permanent presence as *bounded existence*, and he mentions Somali as another language which distinguishes between temporary location of the pivot and permanent presence (see 58a-b).

(58) Somali (Koch 2012: 540)
　　　a.　*Miis-ka　buug　baa　dul　**yaalla.***
　　　　　table-DEF　book　FOC　upon　be.3SG.M.PRS
　　　　　'There is a book on the table.'

　　　b.　*Libaax-yo badan baa　**jira'**　　Afrika.*
　　　　　lion-PL　　many FOC　exist.PRS　Africa
　　　　　'There are many lions in Africa.'

This is no doubt an interesting contrast (which was introduced in §4 above), but traditionally both have been included in the existential category, and I follow the tradition here.

　　And third, Creissels does not require the locatum in inverse-locational clauses to be indefinite, citing French sentences like *Tiens, il y a Jean!* 'Hey, there's Jean!' (which includes the existential expression *il y a* 'there is'). These would not be existential under the definition given here.

　　Creissels (2019: §2.4) rightly criticizes Koch for equating the contrast between predlocative and existential clauses with the contrast between a thematic/topical locatum and a rhematic/focal locatum. While it is indeed typical for the locatum to be topical in sentences like *The dog is on the bed* (cf. (16) above), and for the locatum to be focal in sentences like *There is a bird on the roof,* this need not be the case (as already noted by

Padučeva 1985: 130-131; 2008: 150). We can have predlocative sentences with a focal locatum (*THE DOG is on the bed*), and (59)-(60) are existential sentences whose existent is topicalized.

(59) Russian
      [Я искал кефир.] Кефира в магазине не было.
      *[Ja   iskal   kefir.]   Kefir-a   v   magazine ne **byl-o**.*
      I.NOM sought kefir.ACC kefir-GEN in   store   NEG was-N.SG
      '[I was looking for kefir.] There wasn't any kefir in the store.' (Partee & Borschev 2007: 155)

(60) French
      *Des   femmes,   **il y**   **en**   **avait** plusieurs à la   réunion.*
      INDF women   it there of.them had   several   at the meeting
      (lit.) 'Women, there were several of them at the meeting.' (Creissels 2019: 49)

What is crucial here is that the locatum is definite in *THE DOG is on the bed*, and that the existent is indefinite and discourse-new in (59)-(60).

An important observation that Creissels (2019) does not highlight is that existential clauses often lack a locative phrase, so that the intended location must be inferred from the context (cf. Hengeveld 1992: 96-100). In (61) and (62), the speaker does not talk about water or meat (not) existing in the world, but about their presence in the contextually given location. Thus, the locative phrase may be absent in an existential clause in these languages, and this optionality is apparently a feature of all languages.

(61) Hamar (South Omotic)
      *Noqó **dá-u***?
      water EXV-Q
      'Is there water?' (Petrollino 2019: 11)

(62) Yurakaré (a language of Bolivia)
      ***Nijta-jti**=ya   emme.*
      NEGEXV-HAB=NONVERID meat
      'There was no meat.' (van Gijn 2006: 288)

(63) Naxi (Trans-Himalayan)
      *ze²kʰø³³ ʈʂʰ̩³³ kʰø³³ bɤ²¹   se²¹,   ɲ̩i²¹   mɤ³³ **zi³³**.*
      well   this   CLF   be.dry PFV   water NEG   there.be.in
      'The well is dry and there's no water (inside).' (Chappell & Lü 2022: 40)

Finally, let us briefly consider the expression of "pure existence", as in *God exists*, or *There is beer without alcohol* (Hengeveld 1992: 97). I propose that such clauses should be called HYPARCTIC CLAUSES, based on Greek *hýparxis* (ὕπαρξις) 'existence'. They are not a special case of existential clause because existential clauses denote location (so that the term *existential* is semantically non-transparent, as already observed in n. 4), and they are not a special case of any of the other six clause constructions in §1. But they should be subsumed under nonverbal clause constructions, because they are often encoded in the same way as existential constructions (so they are added as an eighth type in Table 1 below). A few examples of hyparctic clauses are given in (64)-(667.

(64) Latin
Cogito, ergo **sum**.
I.think therefore I.exist
'I think, therefore I am.' (René Descartes, 1637)

(65) French
Il **est** *des situations dans lesquelles personne n'aimerait se trouver.*
it is INDF situations in which nobody would.like self to.find
'There are situations in which nobody would like to be.' (Creissels 2019: 44)

(66) Hamar (South Omotic)
Bajó **dáa**.
fate EXV
'Fate exists.' (Petrollino 2019: 8)

(667 Classical Arabic
لَا إِلَٰهَ إِلَّا ٱللَّٰهُ
Laa ʔilaah-a ʔillaa 'llaahu.
not god-ACC unless Allah
'There is no deity but God.' (Qur'an 37:35)

We can see that there are diverse strategies for hyparctic clauses, and it seems that they have not been studied very systematically yet. Not surprisingly, there is a lot of overlap with existential clauses, but there are also differences; for example, French *être* (seen in (64)) can be used in hyparctic, but not in existential clauses.

13. The taxonomy of comparative concepts for nonverbal clause constructions

The main comparative concepts that I discussed in this paper are summarized in Table 1, where the eight central construction types are highlighted in boldface (these are the seven original types of §1, plus the hyparctic type of §12). The more marginal nonverbal constructions of §8 are omitted from this table. As we saw in §6, four of these types have a clear topic-comment or subject-predicate division, but the other four types lack such a division and are thus nonpredicational.[16]

Table 1 also shows several subdivisions of some of the central construction types, as well as the duonominal super-type (a cover term for classificational and equational constructions that I introduced in §2).

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[16] I should note here that the characterizational subtype of equational type is often included in the predicational class, because in traditional logic it was treated in this way. But here I distinguish *classificational* and *equational* on the basis of definiteness: If both nominals are definite, the clause is equational (cf. also Dixon 2010: 172).

predicational §6	**appertentive** §5		
	predlocative §4		
	attributional §3		
	classificational §2		duonominal §2
nonpredicational §6	**equational** §2, §9	characterizational §9	
		specificational §9	
		deictic-identificational §10	
	existential §4, §12	temporary-location existential §12	
		permanent-presence existential §12	
	predpossessive §5		
	hyparctic §12		

Table 1: The main types of nonverbal clause constructions and subtypes

There are four additional super-type concepts that cannot be accommodated in Table 1, and for which we need a separate table (Table 2), again showing the eight central types. Classificational and attributional clauses are subtypes of ascriptive clauses, and it is useful to have the terms LOCATIONAL CLAUSE, covering predlocative and existential clauses (§4),[17] and POSSESSIONAL CLAUSE, covering predpossessive and appertentive clauses (§5).

equational §2		
classificational §2	ascriptive	
attributional §3		
predlocative §4	locational	locopossessional
existential §4, §12		
predpossessive §5	possessional	
appertentive §5		
hyparctic §12		

Table 2: Nonverbal clause construction types and super-types

Finally, many linguists have been fascinated by the interrelations between locational and possessional clauses (e.g. Clark 1978; Bickerton 1981; Freeze 2001; Koch 2012), for which we can use the cover term LOCOPOSSESSIONAL CONSTRUCTIONS (Clark's (1978) cover term for these four subtypes was "locationals").

14. Concluding remarks

This paper has discussed a range of comparative concepts for the domain of nonverbal clause constructions, as well as the traditional and novel technical terms that can be attached to them. Its main goal is to propose a set of clear terms for general linguistics, so the Appendix is an important part of the paper. Here I make a few further remarks on the general guidelines that I used in choosing the terms.

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17 The term *locational clause* was already used in §7 in the definition of a copula: a form that indicates a stative link between the two argument positions of an equational, ascriptive or locational clause.

Technical terms need to be clearly defined, but it is impossible to define all one's terms in each paper, so linguists typically rely on a general understanding of widely used terms such as *copula*, *existential construction* or *predicational clause*. This means that such widely used terms should be defined in such a way that their meaning corresponds maximally to their traditional (undefined) use. It is less important that their meaning is transparent from their form (recall the case of *existential*, briefly discussed in n. 4), or that they represent natural concepts that "cut nature at its joints". Which comparative concepts are the most useful for formulating generalizations about the world's languages is a question that is quite independent of their traditional use. We can hope that the well-established classes as in (1)-(7) will turn out to be the most useful ones for explanatory theories, but we must always be open to new ideas.

There are a number of clear concepts for which the earlier literature offers no suitable terms, so I proposed a number of new terms here, such as *appertentive*, *duonominal*, *tautotic*, and *hyparctic*, which are rooted in the familiar Greco-Latin terminological tradition. Terms like *appertentive* may be somewhat less transparent than "*belong construction*" (Stolz & Levkovych 2019), but they are single words and are thus much more easily searchable than two-word combinations. Moreover, technical-sounding terms are more likely to be taken seriously as general terms that are always used in the same meaning (rather than in an ad hoc meaning suited only to a specific context).

It should always be kept in mind that the categories of particular languages do not always coincide with salient comparative concepts. For example, the English *There-is* Construction does not coincide with existential constructions, because it can also be used in hyparctic clauses (e.g. *There is beer without alcohol*). And the Polish verb *mieć* 'have' can be used both in predpossessive constructions and in negative existential constructions (*nie ma* 'there isn't'), which is not a natural class. In many languages, different subtypes of property words are treated differently (cf. Ye 2021), but as the term *attributional* construction is defined semantically (§3), not with respect to language-particular subclasses, they are all attributional constructions. The coexpression patterns of various kinds of copulas, existives and transpossessive verbs are a fascinating topic (cf. Bickerton 1981: 245 (2016: 215); Koch 2012; Veselinova 2013, Creissels 2019: §4), and ordinary 'be'-type copulas are also used in a variety of different ways that have been discussed extensively (see §9). But these cross-linguistic patterns entail no language-particular claims. How language-particular constructions are analyzed is independent of cross-linguistic patterns, and the concepts proposed here are intended exclusively for comparative and general purposes (though the terms can, and should, of course be used for descriptive purposes if they help make the description transparent, as discussed in Haspelmath 2020a). Languages may well have additional distinctions not covered here, along the lines of the adjective subclasses just mentioned.[18]

This paper has focused on two fairly different types of comparative concepts: functional-semantic concepts (such as those in (1)-(7) and in Tables 1-3), and form-based strategy concepts. Linguists sometimes try to categorize phenomena both by functional-semantic concepts and by form concepts, but it is best to keep these separate (as emphasized by Croft 2022). This means that there is often a many-to-many mapping between functional-semantic concepts and strategies. We saw this in the case of existential clauses, which can have diverse shapes in English (*there is a bird on the roof – on the roof is a bird – a bird is on the roof*; see §12). The same is true for English specificational clauses, which stereotypically have the variable noun before the copula (*Poland's capital is Warsaw*), but the opposite order is possible, too (*WARSAW is Poland's capital*). The literature is often vague about the precise definitions of the terms *existential*

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[18] One example is the French distinction between *Raymond est acteur* and *Raymond est un acteur* (Roy 2013: §3.2), which both mean 'Raymond is an actor' but differ in subtle ways.

and *specificational*, and sometimes *existential* is explicitly defined with respect to a strategy (i.e. differently from the way it is defined here), so in this paper I have put particular emphasis on such mismatches.

The term *nonverbal clause construction* itself is here defined as the set of clause types given in Table 1 and Table 2, which are all defined in functional-semantic terms. This appears to contrast with the definition of *nonverbal predication* in Creissels et al. (2023), which refers to a set of strategies in that certain clause types are excluded (e.g. transpossessive clauses and clauses with "verbal" adjectives). Functional-semantic classes and strategy classes often overlap substantially, so one and the same term may be used for either type of concept. As long as we define our terms clearly, no practical problemas should arise.

Abbreviations

ADESS	adessive
AUG	augment
CLF	classifier
DECL	declarative
DEM	demonstrative
EXV	existive
G1, G7	gender 1, gender 7
INDF	indefinite
INESS	inessive
INS	instrumental
LCOP	locative copula
N	neuter
OST	ostensive marker
PFV	perfective
PRED	predicative
PROLOC	prolocative
PRS	present
QUOT	quotative

Acknowledgements

Appendix

In this list of comparative concepts, the terms for subtypes (and supertypes) of nonverbal clause constructions are printed in **boldface non-italics**, while the terms for strategies and components of strategies (such as ***copula***) are printed in ***boldface italics***. Other terms are printed in *simple italics*, and they are marked by*"double quotes"* when they are used exclusively by other authors and their meaning is not entirely clear and/or when there is a better alternative term available.

appertentive clause construction (§5): a nonverbal clause construction with a topic-comment structure in which the subject is definite and the predicate is a possessor nominal. (The predicate of an appertentive clause is the APPERTENTUM.)

appertentum: the predicate nominal of an APPERTENTIVE CLAUSE (Hengeveld 1992: 100: "possessive predicate")

ascriptive clause: a cover term for CLASSIFICATIONAL and ATTRIBUTIONAL clause constructions (§3; Table 2 in §13); Creissels et al. (2023: §4.1) use the term "proper inclusion" to cover both of these types.

attributional clause construction (§3): a nonverbal clause construction with a topic-comment structure in which the predicate is a property word.

"bounded existence": Koch's (2012) term to describe the function of temporary-presence existential constructions

characterizational clause (§9): an equational clause in which the topic is a value nominal and the comment is a variable nominal, contrasting with a SPECIFICATIONAL CLAUSE, where it is the other way round. (Huddelston & Pullum (2002: §5.5.1) use *ascriptive* vs. *specifying* for the contrast.)

classificatory nominal (§2): the predicate nominal in a CLASSIFICATIONAL CONSTRUCTION

classificational construction (§2): a duonominal clause construction with a topic-comment structure which has a definite subject nominal and an indefinite nominal as the predicate. (The predicate nominal in such constructions may be called the CLASSIFICATORY NOMINAL, a term introduced here.)

compossessive strategy (§5): a strategy for a PREDPOSSESSIVE CLAUSE in which the possessum nominal bears a flag that is also used as a comitative flag ('with') (term introduced by Creissels 2020)

copula (§7): a copula is a form that indicates a stative link between the two argument positions of an EQUATIONAL, ASCRIPTIVE or LOCATIONAL clause.

deictic-identificational clause (§10): an EQUATIONAL clause in which one of the two nominals is a demonstrative

duonominal clause (§2): a cover term for CLASSIFICATIONAL and EQUATIONAL clause constructions, which share the property of putting two nominals in correspondence, without any possessional or locational meaning

equational clause construction (§2): a construction that puts two nominals in correspondence both of which are definite

"equative clause": This term is often used in the sense of "identity-expressing", for which I introduce *tautotic* here. Note that *equative* can be confused with the EQUATIVE DEGREE form of adjectives (see Haspelmath & Buchholz 1998).

existent (§4): the indefinite and discourse-new nominal phrase that is said to be in some location in an EXISTENTIAL CLAUSE (a type of LOCATUM)

existential clause construction (§4): a clause construction in which an indefinite and discourse-new nominal phrase (the EXISTENT) is said to be in some location

existive (§7): An existive form is a type of COPULA that is restricted to EXISTENTIAL (or PREDPOSSESSIVE) constructions.

general locational predication (§12): a locational clause strategy which can be used both for existential clauses and predlocative clauses (Creissels 2019: 51)

hyparctic clause construction (§12): a clause construction with a single argument that expresses pure existence regardless of location (the single argument could be called the *hyparchon*)

"identity clause": used by Dixon (2010) as a cover term for all duonominal clauses; Creissels et al. (2023: §4.2) use "identity statement" for all equational clauses.

independent-possessor appertentive strategy (§5): a strategy for APPERTENTIVE clauses in which the possessor is expressed by a special independent-possessor form

inverse-locational clause (§12): Creissels's (2019) term for a kind of TEMPORARY-LOCATION EXISTENTIAL CLAUSE when it is expressed by a dedicated strategy rather than "general locational predication"

"locational": Clark's (1978) cover term for LOCOPOSSESSIONAL constructions

locational clause (§13): a cover term for PREDLOCATIVE and EXISTENTIAL clause constructions (Table 2 in §13). (Hengeveld (1992: 94) uses *localizing (predicate)* in the same sense.)

"locative clause" (cf. §5): a term that is sometimes used for a PREDLOCATIVE clause, but that is less transparent because existential clauses are about location, too

locatum (§4): the argument in a LOCATIONAL (PREDLOCATIVE or EXISTENTIAL) clause that is said to be located in some place (also called, more specifically, PREDLOCATUM and EXISTENT, respectively)

locopossessional clause (§13): a cover term for LOCATIONAL and POSSESSIONAL clause constructions (Table 2 in §11)

locpossessive strategy (§5): a strategy for a PREDPOSSESSIVE CLAUSE in which there is a locative flag on the possessor ('on, at') (term introduced by Creissels 2020)

"nominal clause": an older term (coined in Semitic linguistics) for predicational or equational nonverbal clauses lacking a copula (e.g. Meillet 1906)

nonverbal clause construction: This term has no intensional definition here, but is understood as the collection of construction types given in Table 1 and 2. They may not share any properties other than lacking a "typical verb" (a vague notion that is not defined here).

oblique-possessor appertentive strategy (§5): a strategy for APPERTENTIVE clauses in which the possessor is marked by an oblique flag

pivot nominal (§4): an alternative term (Milsark 1977) for the EXISTENT in an EXISTENTIAL clause

plain-locational clause (§12): Creissels's (2019) term for a PREDLOCATIVE clause

possessional clause (§13): a cover term for PREDPOSSESSIVE and APPERTENTIVE clause constructions (Table 2 in §13)

"possessive clause" (cf. §5): a term that is sometimes used for a PREDPOSSESSIVE clause, but that is less transparent because APPERTENTIVE clauses are about possession, too

possessum: the argument in a POSSESSIONAL (APPERTENTIVE or PREDPOSSESSIVE) clause that is said to be possessed by some possessor (also called, more specifically, APPERTENTUM and PREDPOSSESSUM, respectively)

predicate (§6): In a PREDICATIONAL nonverbal clause, the comment is the predicate. The predicate is a nominal in a CLASSIFICATIONAL clause, and adjective in an ATTRIBUTIONAL clause, and a locative phrase in a PREDLOCATIVE clause.

"predication" (§6): This term is somtimes used (e.g. Dik 1997) in an abstract sense, similar to Van Valin's (2005: 4) clausal "core". The term "nonverbal predication" is avoided here because not all nonverbal clause constructions are PREDICATIONAL.

predicational nonverbal clause (§13): a nonverbal clause with a topic-comment structure, i.e. CLASSIFICATIONAL, an ATTRIBUTIONAL, an APPERTENTIVE, or a PREDLOCATIVE clause

predlocative clause construction (§4): a nonverbal clause construction with a topic-comment structure in which the subject is definite and the predicate is a locative phrase. (The subject of a predlocative clause is the LOCATUM or PREDLOCATUM.)

predlocatum (§5): the definite subject argument that is said to be in some location in an PREDLOCATIVE CLAUSE (a type of LOCATUM)

predpossessive clause construction (§5): a clause construction in which an indefinite and discourse-new nominal phrase (the PREDPOSSESSUM) is said to be possessed by a definite possessor

predpossessum: the indefinite and discourse-new nominal phrase that is said to be possessed in a PREDPOSSESSIVE CLAUSE (a type of POSSESSUM)

presentational clause (n. 13): a specialized clause construction in which the subject is indefinite and discourse-new (Gast & Haas 2011)

prolocative form (§4): a short form that elsewhere has a deictic-locative meaning ('here', 'there') and that marks existential clauses in some languages

specificational clause (§9): an equational clause in which the topic is a variable nominal and the comment is a value nominal, contrasting with a CHARACTERIZATIONAL clause, where it is the other way round

subject (§1-2): In a PREDICATIONAL nonverbal clause, the topic argument can also be called subject. (In a verbal clause, the term subject is typically used for the A or S argument; Haspelmath 2011.)

tautotic clause (§2): a clause express the identity of what appear to be two individuals known by different names

transpossessive strategy (§5): a strategy for a PREDPOSSESSIVE CLAUSE which contains a transitive verb ('have') and in which the possessor is the subject and the possessum is the object

"typical verb" (cf. §1): Informally, we can say that a nonverbal clause construction is a construction that lacks a "typical verb", but this is a vague notion that has no definition. Nonverbal clause constructions are defined extensionally, as the collection of clause types given in Table 1 and 2.

"zero copula" (cf. §7): When a nonverbal clause lacks any element linking the arguments, linguists often say that there is a "zero copula", but when COPULA is defined as "a form that

indicates a stative link between the two argument positions of an EQUATIONAL, ASCRIPTIVE or LOCATIONAL clause", there can be no "zero copula".

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