

Initial Orientation for LCRC 2021 Local Workshop

Non-verbal Predicates and Copula Clauses

R. M. W. Dixon and Alexandra Y. Aikhenvald

1 Basics

1.1 Clause types

Each language has two major clause types:

- **Intransitive clause**, whose core components are an intransitive predicate (abbreviated to 'IPr') and one core nominal argument (traditionally called 'intransitive subject', conveniently abbreviated as 'S').
- **Transitive clause**, whose core components are a transitive predicate (abbreviated to 'TPr') and two core nominal arguments (traditionally called 'transitive subject', conveniently abbreviated as 'A'), and 'transitive object' (conveniently abbreviated as 'O').

Transitive subject (A) is the core argument whose referent has the potential to initiate or control the activity or state involved. Transitive object (O) is the other core argument in a transitive clause. The referent of the O argument may be physically or mentally affected by the activity, but not always so.

Peripheral arguments may be added to either clause type.

Each core (and peripheral) argument slot is filled by a **Noun Phrase (NP)**.

The predicate slot is filled by a **Verb Phrase (VP)**

1.2 Word classes

Each language has two major word classes.

- **Noun**, whose main function is to function as head of an NP. It may constitute a full NP or it can have a varied selection of modifying words, phrases, and subordinate clauses.
- **Verb**, whose main function is to function as head of a VP. It may constitute a full VP or it can have modifiers.

An intransitive verb functions as the head of an intransitive VP, which fills an intransitive predicate slot. A transitive verb functions as the head of a transitive VP, which fills a transitive predicate slot. An ambitransitive verb, of type S = O and of type S = A, may relate to either type of predicate.

These are the main functions of noun and verb. They generally have further, secondary functions which differ from language to language.

• Adjectives

A class of adjectives can be recognised for (almost?) every language.

An adjective typically has **two tasks**:

(a) It can help **identify the referent of the head noun in an NP**, which it modifies. For example *The red flag* in English (as in the sentences I_A saw [*the red flag*]_O and [*The red flag*]_S tore).

(b) It can **make a statement that something has a certain property**. There are two syntactic techniques for coding this. The purpose of the current workshop is to study these techniques across a variety of languages.

1.3 How to make a statement that something has a certain property?

The alternatives are:

TECHNIQUE I—Non-verbal predicate (introduction)

In every language the head of the phrase filling a predicate slot is typically a verb. In some languages it can only be a verb. In other languages it may also be an adjective (or a noun, etc.). Fijian is of this type. We can compare:

- | | |
|---|--|
| (1) [e la'o] _{IPr} [a gone] _S
3sgS go ARTICLE child
The child is going | (2) [e balavu] _{IPr} [a gone] _S
3sgS tall ARTICLE child
The child is tall |
|---|--|

Each of these is an intransitive clause. In (1) the predicate head is an intransitive verb, *la'o* 'go'. In (2) the predicate head is an adjective, *balavu* 'tall'.

In fact, Fijian allows a wide range of further items to function as predicate head: NP, plain noun, or pronoun. (The syntactic possibilities for modifiers to the head are the same whatever the nature of the head.)

Note that Fijian has no copula clauses. Task (b) in §1.2 for adjectives 'make a statement that something has a certain property' can only be achieved by the non-verbal predicate technique.

In the great majority of languages (including Fijian) with non-verbal predicates this only relates to an intransitive predicate. The head of a transitive predicate can only be a verb.

Languages with non-verbal predicates vary as to which non-verbal items may function as a predicate head.

Box 1. A note on terminology

TERMINOLOGY. The designation **nominal predicate** is often used for non-verbal predicate. This is an appropriate label, provided the item which functions as the predicate has nominal features.

TECHNIQUE II—Copula Clauses (introduction)

In addition to transitive clauses and transitive clauses (which all languages have), many—but by no means all—languages have a third clause type:

- **Copula clause**, whose core components are a copula predicate (abbreviated to CPr) and two core arguments—copula subject (CS) and copula complement (CC). An example from English is:

(3) [The flag]_{CS} [is]_{CPr} [red]_{CC}

The important difference between the clause types is that an intransitive or transitive predicate slot is filled by a VP which has reference, whereas a copula predicate slot is filled by a copula verb which has no reference but simply marks a relation between CS and CC—more on this in Table 14.1 on page 8.

The CS argument shows similar possibilities to S, A and O arguments for intransitive and transitive clauses (and also to peripheral arguments)—generally an NP, sometimes a complement clause. In contrast, the CC argument covers these but adds wider possibilities. In English—as in most other languages with a copula construction—CC can be just an adjective (here, *red*). (It could also be a noun, a time word etc.).

Many languages with a copula clause do not have non-verbal predicates. Task (b) for adjectives 'make a statement that something has a certain property' can only be achieved by the copula construction.

Box 2. A note on terminology

TERMINOLOGY. There has arisen the unfortunate habit of using the label '**nominal predicate**' for everything after the CS in a copula construction; that is for *is red* in (3). The predicate in a copula clause is the copula verb (plus any modifiers). The copula complement is a separate argument (parallel to arguments CS, S, A, and O). The use of the term **nominal predicate** here is confusing, and best avoided.

For **task (b)** relating to adjectives **making a statement that something has a certain property**, many languages employ just one technique—either through I, non-verbal predicates, or II, by means of copula clauses.

2 Non-verbal predicates and copula clauses

The two techniques were introduced and contrasted with respect to adjectives. However, the possibilities for what can function as a non-verbal predicate, in the first case, and what can be CC, in the second case, are wider than just adjectives (and they vary from language to language).

There are some languages which employ both techniques. This can be illustrated from Tariana, (Aikhenvald p.c.) using a noun as the non-verbal element. The intransitive clause (4), with a noun as head of the VP, illustrates technique I:

- (4) čĩāris [kuphe-pidana]_{IPr}
 man fish-REMOTE.PAST.REPORTED
 A man was reportedly a fish

And technique II is shown by the copula clause construction:

- (5) čĩārics kuphe_{CC} [di-dia-pidana]_{CPr}
 man fish 3sg.nonfem.CS-become-REMOTE.PAST.REPORTED
 A man reportedly became a fish

Both sentences refer to the kind of transmutation which can occur in a myth. Using *kuphe* 'fish' as head of an intransitive predicate in (4) indicates a state. In contrast, using *kuphe* as CC for copula verb *-dia-* 'become' in (5) describes the actual change that occurred. Note that the verb in (5) takes a bound pronominal prefix for the CS argument. A tense/evidentiality suffix, here *-pidana* 'remote past reported', occurs on all types of predicates—transitive, intransitive, non-verbal, and copula.

Box 3. A note on terminology

TERMINOLOGY. The difference between (4) and (5) in Tariana (other languages show a similar contrast) underlines the importance of employing precise and unambiguous terminology. Sentence (4) has a **nominal predicate**, *kuphe-pidana* 'be reportedly a fish', while (5) has a **copula predicate** *di-dia-pidana* 'reportedly became' plus a **copula complement argument** *kuphe* 'fish'. (It does **not** have a nominal predicate.)

2.1 TECHNIQUE I—Non-verbal predicate

The VP which relates to the predicate slot has a fixed structure. There will be a number of grammatical elements attached to the head, or modifying the head, which enable us to recognise its predicate role.

Basically the same structure applies whether the head is a verb or some other item. (However, the possibilities are expected to be more limited for a non-verbal head, in the light

of semantic and grammatical compatibilities.)

Many languages have bound pronominal affixes—referring to one or more core arguments—which are obligatorily attached to what we can call the 'predicate head'; they provide a clear criterion for recognising when a non-verbal element is being used as predicate head.

In Manambu (Ndu family, PNG; Aikhenvald 2008: 249 and p.c.) the predicate head is normally a verb, but may be an adjective, a noun, an adverb, or a demonstrative, etc. We can contrast the use of verb, in (6a), and of adjective, in (6b), both 'timeless' clauses:

- | | | | |
|------|--|------|--|
| (6a) | yi-dewun
go-1.masc.sg
I (man) am going | (6b) | numa-d-adewun
big-masc.sg-1.masc.sg
I (man) am big |
|------|--|------|--|

A non-verbal word as predicate head takes a bound pronominal suffix, just as a verb does; the two sets of suffixes have slightly different forms. Note that the adjective *numa* 'big', as predicate head in (6b), includes *-d-*, as a second marker of 'masculine singular'.

In Kamaiurá (Tupí-Guaraní family, Brazil; Seki 2000: 69) an adjective as predicate head differs from a verb in not occurring in circumstantial mood. Also, the dependent marking suffix is *-m* after a verb and *-ram* after an adjective as predicate head:

- | | | | |
|------|--|------|---|
| (7a) | a-ha we-karu-m
1sg-go 1sg-eat-DEPENDENT
I went (somewhere) to eat | (7b) | a-ha we-katu-ram
1sg-go 1sg-good-DEPENDENT
I went (somewhere) to be good |
|------|--|------|---|

Typically, a non-verbal predicate head may only take a selection of the affixes and modifiers available to a verb. For example, in Temiar (Aslian branch of Austro-asiatic; Benjamin 1976: 184) only verbs (not adjectives) may take the modal affix *-m-* and form causatives.

Adjectives may show fewer possibilities for mood than do verbs, particularly for imperative.

In some languages, verbs allow some modifiers which adjectives lack, and adjectives permit some which verbs lack. In Vietnamese (Nguyen 1987: 791), only adjectives can be preceded by *raḏ* 'very' and *khát* 'rather', and only verbs can occur with the exhortative particle *hay*.

Fijian goes beyond this—a full NP (just dropping its article) may be intransitive predicate head, as in:

- (8) [e sa [marama savasavaa]_{NP} sara gaa]_{IPr} [o Koleta]_S
 3sgS ASPECT lady clean VERY INDEED ARTICLE <person>
 Koleta is indeed a very clean lady

The predicate head here consists of an NP with head noun *marama* 'lady' and adjective modifier *savasavaa* 'clean'.

As in many languages, a non-verb as predicate head may be accompanied by only a limited selection from the set of intra-VP modifiers available for verbs, for reasons of semantic compatibility. Sentence (8) includes the 3sg subject (S and A) bound pronoun, 3sg *e*, followed by aspectual *sa*, which contrasts this moment with a later one. Post-head there are modifiers *sara* 'very' and *gaa* 'indeed'. However, other modifiers used with predicates with a verbal head might scarcely be compatible with having an NP as head (*mai* 'come and do' and *oti* 'completed', for example).

If a non-verbal item can occur—as an alternative to a verb—as predicate head this does not imply that it shares other properties with verbs; for example that it may be causativised, or that it can feature in serial verb constructions. These properties may apply, but only on a language-specific basis. Box 4 offers some cross-linguistic tendencies (see also Aikhenvald 2015: 226-8).

Box 4. Recurrent restrictions on non-verbal predicates

Non-verbal predicates tend to have the following restrictions, compared to verbal predicates:

- they cannot be used in commands (especially canonical 2nd person oriented imperatives)
- they cannot head a dependent clause (an alternative technique will have to be used)
- they either cannot enter into a serial verb construction at all; or a serial verb construction cannot consist just of non-verbal predicates.

Languages which allow items other than verbs to function as predicate head differ as to what these items may be. It may be just adjectives, or adjectives and nouns. Pronouns may be a further possibility, as in 'That photo is me'.

Box 5. A hypothesis: the likelihood of occurrence of non-verbs in the predicate slot

If a language has non-verbal predicates, the following tendency is expected to apply:

adjectives < nouns and noun phrases < pronouns < other word-classes

That is, if a language allows pronouns in the predicate slot, it will allow nouns and adjectives. If it allows time words or manner words, it will allow pronouns. This will be tested at the Workshop.

2.2 TECHNIQUE II—Copula Clauses

This is essentially a severe shortening of *Basic Linguistic Theory* Vol 2, chapter 14. Anyone making a presentation involving copula clauses is advised to read chapter 14 quite thoroughly.

It is useful to compare the three clause types:

CLAUSE TYPE	COMPONENTS	
intransitive	intransitive predicate	S core argument
transitive	transitive predicate	A and O core arguments
copula	copula predicate	CS and CC core arguments

Intransitive and transitive clauses may also include peripheral arguments—marked by prepositions or oblique cases—referring to location, time, instatement, benefaction, etc. Copula classes seldom include peripheral arguments.

The important difference between the clause types is that an intransitive or transitive predicate slot is filled by a VP which has reference, whereas a copula predicate slot is filled by a copula verb which has no reference but simply marks a relation between CS and CC.

The CS argument shows the same possibilities as the S, A and O arguments (and peripheral arguments)—it may be an NP or a complement clause. CC allows these possibilities and more besides. It may be just an adjective, or a possessor, or an NP marked by a preposition. In some languages CS can be shown by a bound pronoun in the predicate, like S, A and O. It appears that CC is never cross-referenced by a bound pronoun.

In each specific language, a copula construction marks a range of relations between CS and CC, depending in large part on the nature of the CC. These are illustrated for English in Table 14.1.

Table 14.1 – Outline of the semantic relations shown in copula constructions for English

	NATURE OF CC	RELATION	CS	COPULA	CC
A1	NP or complement clause	Identity	<i>This man</i> <i>The basic idea</i>	<i>is</i> <i>was</i>	<i>a doctor</i> <i>that John should lead</i>
A2	Adjective	Attribution	<i>This man</i>	<i>is</i>	<i>clever</i>
A3	Possessive phrase	Possession	<i>This book</i>	<i>is</i>	<i>John's</i>
A4	NP marked by appropriate adposition or affix	Benefaction	<i>This present</i>	<i>is</i>	<i>for John's birthday</i>
A5	NP marked by appropriate adposition or affix, or locational adverb	Location	<i>The apple tree</i>	<i>is</i>	<i>in the garden/ over there/ outside/</i>
		Temporal	<i>Breakfast</i>	<i>is</i>	<i>at eight o'clock</i>

A copula will always cover relations A1, Identity, and/or A2, Attribution; often also A3, Possession, and A4, Benefaction. (In a number of languages these last two merge as a single relation.) In some languages the copula construction also covers A5, Location, but in others a stance verb must be employed (literally 'The apple tree stands in the garden/over there/outside').

A defining feature for a copula verb is that it *must* be able to occur in a construction with two core arguments, CS and CC. In some languages — not including English — there is an alternative construction for a copula verb, with a single argument, CS. This can be illustrated from Latin:

	NATURE OF CC	RELATION	CS	COPULA
B	none	Existence	<i>Deus</i>	<i>est</i> 'There is a god (lit: God is)'

Note that if a putative copula *always* occurs with just one core argument, CS — and not also with a CC — then it is not a copula verb at all, but a straight forward intransitive verb. If a putative copula verb occurs just in relation A5, with an NP marked by a local case (and assuming that CS is marked in the same way as S) then it should be regarded as an intransitive verb with an oblique local NP. Similarly for a putative copula which occurs only in relation A3 and A4, with an NP marked as genitive, etc.

That is, for a verb to be identified as a copula, it must occur with two core arguments, CS and CC, covering at least A1, Identity relation, and/or A2, Attribution relation.

[A number of languages have a special existential marker 'there is'; this should not be considered a type of copula. English uses *there is/are/was/were*; for example, *There is a solution*. As Matthews (1997: 77) puts it 'this is an existential use of *be*', to be distinguished from the copula use of *be*.]

IIa Why do we need a copula verb?

A copula clause indicates a relation between CS and CC. The character of this relation is, in essence, shown by the nature of the CC. Unlike a regular verb, a copula verb has no reference. What then is the point of including it? A copula verb can be regarded as a 'dummy' predicate head to which is attached grammatical information that goes with a referential verb—tense, aspect, evidentiality, modality, bound pronouns, etc.

(a) A copula may be needed to satisfy the syntactic requirements of a language. Some languages—including English, French, Basque, Finnish and Jarawara—have a requirement that every clause must include a verb, and the copula verb satisfies this need. But in other languages a copula may be omitted in certain circumstances. When unmarked terms with zero realisation are chosen from the grammatical systems which the copula carries, then there is nothing to carry and the copula may be omitted.

For example, in Hungarian, the copula is omitted in present tense when the CS is 3rd person and the CC relates to Identity or Attribution (but is included when it relates to Location or Possession). In Russian the copula must be included in past and future tenses but is generally omitted in present tense; it is retained only in high-flown language and in mathematical formulae. In Tarma Quechua, 'if the copula is in the (unmarked) present tense with a 3rd person subject and no other verbal morphology is added, it is not expressed'. In Manambu, a copula has to occur if a clause with a non-verbal predicates is used as a dependent clause.

For Cavineña, Guillaume (2008: 97) reports as follows. 'The main function of the copula predicate is to carry verbal affixes. Speakers very often leave out the copula predicate when they do not judge it necessary to express [tense, aspect, etc.] verbal categories coded by these affixes. This happens for example in generic statements . . . or when the verbal categories are understood from either the textual context . . . or the physical/visual context.'

(b) For some languages the conditions for inclusion or omission of a copula verb may be less specific. Sneddon (1996: 237-8) characterises the copula in Indonesian as 'optional' and most common when either CS or CC is long, in which case the copula 'breaks up a string of nouns

and adds a smoothness to the construction'. The copula is also frequently used if the CC is a nominalised verb.

(c) Some languages have two or more copula verbs, with different orientations. Multiple copulas may reflect different facets of a state. Or they may reflect properties of the CS — see **Ile** below.

Iib Null-predicate copula clauses (a more suitable term for 'verbless clauses')

The last paragraphs have described languages in which the copula verb may be omitted, in specified circumstances. There are languages which have a clause type that has properties of a copula clause except that no copula predicate is stated. These have been called 'verbless clauses' but a more appropriate name might be 'null-predicate copula clauses'. The Australian language Yidiñ is of this type. Examples are:

	CS	copula	CC	
(1) A1 Identity	jugi yɪɲu tree THIS	∅	jundu stump	'This tree is (just) a stump'
(2) A2 Attribution	mayi fruit	∅	mamba sour	'The fruit is sour'
(3) A3 Possession	yɪɲu gudaaga THIS dog	∅	wagaal-ni wife-GENITIVE	'This dog is (my) wife's'
(4) A4 Benefaction	mayi miwur fruit gathered	∅	ɲajin 1sg:GENITIVE	'The gathered fruit is for me'

Note that both Possession and Benefaction involve genitive inflection of the CC; they are distinguished on pragmatic grounds. In (4) adjective *miwur* 'gathered' modifies noun *mayi* 'fruit' within the CS. In context, the sentence means 'the fruit has been gathered for me'. (Null-predicate clauses do not — save in exceptional cases — mark tense.)

A null-predicate construction is unlikely to be used for relation A5, Location. A stance verb, such as 'sit', 'stand' or 'lie' will be employed instead, as it is in Yidiñ:

- (5) dunduns jana-ɲ ɲuŋgu
Java.cedar stand-PRESENT THERE
A Java cedar tree is there (lit. a Java cedar tree stands there)

There is one semantic relation, shown by copula clauses in some languages, which is seldom found in null-predicated clauses.—a clause cannot consist just of a CS, indicating B, Existence. In place of this, an intransitive clause is likely to be used, involving a stance verb, or else a verb 'exist'.

As stated in (c) above, some languages have two or more copula verbs, with different orientations. One example of this is a language having a stated copula contrasting with a null-copula construction—see section IIe below.

IIc Syntax

When there is a fixed or preferred order for the constituents within a transitive or intransitive clause, a requirement for fixed order generally carries over into copula and null-predicate clauses. For example, NPs in A, S and CS function precede the verb in English, while O and CC follow it.

In Dolakha Newar (Tibeto-Burman, Nepal; Genetti 2007: 275) there is considerable freedom in the order in which A and O NPs may occur before a transitive predicate, but in a copula construction the CC NP directly precedes the copula verb. Cavineña (Tacanan, Bolivia; Guillaume 2008: 91-7) has a fairly free constituent order in transitive and intransitive clauses, but a CC almost always precedes the copula predicate.

IId Copula arguments

The CS slot generally has exactly the same structural possibilities as S, A and O (or peripheral arguments) — it can be filled by an NP, or by a complement clause (in languages which have these), and so on. When a language has bound pronouns (generally attached to the predicate) as partial realisation of S and O, or of S and A (or of all three), there is invariably a bound pronoun for CS.

If one member of a case system is functionally unmarked, it is generally this that is assigned to S, and also to CS. In all absolutive-ergative systems, absolutive is functionally unmarked (being used for citation, etc.) and is used with CS as well as with S and O. In the great majority of nominative-accusative systems, nominative case is functionally unmarked, being used for S and A, and also for CS. In a language with split-S, CS is generally marked like *So*; this is as would be expected, since the referent of CS generally does not exhibit volition.

There are just a few languages which mark CS in a different way. For example, in Ainu CS is sometimes marked like A. (Further examples are given in BLT vol. 2: 166-8.)

In languages where CS is marked like S, it generally has the same grammatical properties as S in terms of constraints on clause linking, etc.

CC often receives no explicit case or adpositional marking. When one term in the marking system has zero realisation — absolutive in an absolutive/ergative system and nominative in a nominative/accusative one — then CC can be identified with this term, which

is typically also the marking on CS. But sometimes CC does take no marking at all (rather than, say, a term from a case system which has zero realisation). This is the situation in Japanese where a CC may not be followed by any postposition, unlike all other core and peripheral NPs. And in Tariana and in Manambu a CC is the only kind of NP which cannot take any case marker.

In some languages, case-marking on a CC differentiates the types of state. In (29a), from Estonian, a Balto-Finnic language, the CC which takes the Ø-marked nominative case expresses a permanent state or position of the CS.

(29a) tema on õpetaja
s/he is teacher
'S/he is a teacher (permanently or always)'

In (29b), the CC which takes the essive case *-na* expresses a temporary state or position of the CS.

(29b) tema on siin õpetaja-na
s/he is here teacher-essive
'S/he is here as a teacher (occupying the position of a teacher, for a while)'

Similar examples are found in Kamaiurá (Seki 2000: 110, 151, 159).

Ile Multiple copulas

Some languages have more than one copula verb. Most commonly, one will just refer to a state and the other to coming into a state, similar to *be* and *become* in English. For example:

(30a) [My son]_{CS} is [a doctor]_{CC}

(30b) [My son]_{CS} became [a doctor]_{CC} (by passing his exams)

A copula 'be' is most often used for general statements (such as 'John is fat') whereas 'become'—referring to change of state—is more likely to have temporal reference, as in 'John has become fat' or 'John will become fat (if doesn't watch his diet)'. Dolakha Newar (Genetti 2007: 275-83) has two copulas — *khayŋ* 'be', which does not inflect for tense (or for person and number of CS) and *jur-* 'be, become', which does. We find that *khayŋ* can only be used for general statements such as:

(31a) [u nis-ma]_{CS} [chana daŋ]_{CC} khayN
THIS two-CLASSIFIER 2sg:GENITIVE elder.brother be
These two are your elder brothers

Copula *jar-* is typically used with the sense 'becoming', as in:

- (31b) a~~ə~~ kaimu_{CS} subba~~ə~~ jur-a
 THEN husband official become-3sgCS:PAST
 Then my husband became an official

It must also be used — rather than *khayŋ* — for a statement of identity in the past. For example:

- (32) opteca~~ə~~ ju [a~~ə~~ ta~~ə~~ku]
 small be:3sgCS:PAST.ANTERIOR THAT time
 He was small (i.e. a child) at that time

In numerous Tibeto-Burman languages, copulas and existential verbs are chosen based on semantic properties of CS (and can thus be considered a type of classificatory verb: Aikhenvald 2000: 295-9). In Ersu (Zhang 2016: 445-454), a language with five copulas, the copula *dzo* is used to refer to animates, as in (33a).

- (33a) la tə a-t^hə=kə dzo
 chicken one distal-dem.this=in.there cop.anim
 'A chicken is over there'

The copula *xa* is used to refer to inanimates.

- (33b) bəku tə zAtshɛ-ka=ə xa
 hole one pants-cl:generic.stick.like=in cop.inanim
 'A hole is on the pants'

As is well-known, Spanish has two copulas. Basically, *ser* refers to a characteristic feature (a permanent state) whereas *estar* refers to a temporary state. Compare (Travis 2002):

- (34a) [La cáscara]_{CS} es verde_{CC}
 ARTICLE:sg:fem skin be:3sgCS:PRESENT green
 The skin is (*ser*) green

- (34b) Está verde_{CC}
 be:3sgCS:PRESENT green
 It is (*estar*) unripe

Sentence (34a), with copula *ser*, indicates that the skin has a permanent green colour, but (34b) with *estar*, indicates that a fruit is at present 'green' on its way to becoming ripe.

Both copulas may be used for Attribution, with *ser* being preferred for Identity (including naming), Possession and Benefaction. *Ser* and *estar* have different meanings in Location copula clauses, *ser* being used to identify the location of places and events while *estar* describes the location of physical objects and people. Compare (Butt and Benjamin 2004: 423):

(35a) ¿Dónde_{CC} es [la conferencia]_{CS}?
 WHERE be:3sgCS:PRESENT ARTICLE:sg:fem lecture
 Where is (*ser*) the lecture being held?

(35b) ¿Dónde_{CC} está [la conferencia]_{CS}?
 WHERE be:3sgCS:PRESENT ARTICLE:sg:fem lecture
 Where are (*estar*) the lecture notes?

These two clauses have the same CC, *dónde* 'where', and the same CS, *la conferencia*. But the nature of the copula (*ser*) in (35a) leads to the reference of *la conferencia* taken as the lecture (an event) while the nature of the copula (*estar*) in (35b) leads to *la conferencia* being here interpreted as the lecture notes (physical objects).

Ser and *estar* behave similarly in Portuguese. We can give an example of how copulas may be switched for comical effect. If Paulo is a minister in the government one would usually say:

(36a) Paulo_{CS} é ministro_{CC}
 Paul be:3sgCS:PRESENT minister
 Paul is (*ser*) a minister

During a period of political upheaval in Brazil, when ministers seemed to succeed each other at bewildering speed, people would jokingly say:

(36b) Paulo_{CS} está ministro_{CC}
 Paul be:3sgCS:PRESENT minister
 Paul is (*estar*) a minister (that is: here today, gone tomorrow)

It was mentioned in section IIb that a copula predicate may be omitted in the appropriate circumstances. If there are two copula verbs, only one will be omissible. When a language has two copula verbs, 'be' and 'become', it is more likely that 'be' will be omissible than 'become'. This correlates with the fact that 'become' often shows more verbal categories than does 'be'. In fact, 'become' often has some of the characteristics of a regular verb while still functioning as a copula (that is, it takes copula arguments CS and CC, rather than S, or A and O).

In keeping with this, a number of languages have a copula verb for 'become' and use a null-predicate construction for 'be'. This can be exemplified for the Australian language Yuwaalaraay (Williams 1980: 69). Compare the null-predicate clause in (45) with the copula clause in (46).

(45) *burul*_{CC} [*nhama dhayn*]_{CS}
 big THAT man
 That man is big

- (46) *burul*_{CC} [*nhama dhayn*]_{CS} *gi-nji*
 big THAT man become-NON.FUTURE
 That man is getting big

IIf Forms

In isolating languages the copula is likely to have invariable form; this is as would be expected. But we also find that in some languages where transitive and intransitive verbs have a number of morphological processes available to them, the copula (or one of the copulas) has invariable form. This was exemplified, in (31-32) for Dolakha Newar where copula *khayn* is invariable, while copula *jar-* inflects like other verbs.

In some languages a copula does have exactly the same morphological possibilities as other verbs. Tamil is an example of this. But in many languages there is a difference concerning the grammatical categories which may be associated with a copula and/or the way these are realised.

Some languages have a copula which shows more grammatical distinctions than other verbs. For instance, *be* in English has distinct forms depending on the person of CS — *I am, you/we/they are, he/she/it is*. This also applies in Hindi (Kachru 1968: 41). But in many languages the copula shows fewer forms than other verbs. In Modern Greek, for instance, it makes no aspectual distinctions (Joseph and Philippaki-Warburton 1987: 196).

The copula is frequently irregular in its forms. Indeed, of the two copulas in Spanish, *estar* is mildly and *ser* wildly irregular. There are suppletive stems of the copula in a number of languages.

Perhaps the most intriguing form for a copula is found in Kana (Benue-Congo family, Nigeria; Ikoro 1996: 214-16). It basically consists of a low tone, which attaches to the CS. For example, the citation form of 'child' is *ɲwíí* (where ! indicates a high tone). When used as CS, this noun becomes *ɲwíí*, with low tone, ɿ replacing the high tone on the final vowel, as in:

- (40) *ɲwíí*_{CS+COP} *tám-bàrí*_{CC}
 child work-god
 Children are works of god

If the CS ends in a vowel with low tone, the vowel is repeated in CS function; for instance *gbò* 'friend' becomes *gbòò* as CS. If the CS already ends in a VV sequence with low tones, the copula low tone becomes invisible; 'fear', with citation form *bóó*, remains unchanged when placed in CS function.

Box 6. Recurrent restrictions on copulas

Copulas tend to have the following restrictions:

- they cannot be used in commands (especially canonical 2nd person oriented imperatives)
- they either cannot enter into a serial verb construction at all; or a serial verb construction cannot consist just of non-verbal predicates
- they may not form part of verb-verb lexical compounds
- they may be restricted with regard to the application of causatives, applicatives, and further derivations (both word-class changing and word-class preserving)

Ilg Negative copulas

In most languages, copula clauses are negated in the same way as transitive and intransitive clauses.. However, a number of languages have a distinct negative copula. In Koromfe (Gur family, Burkina Faso; Rennison 1997:61), the positive copula has form *la* and the negative one has form *d0*. Awa Pit (Barbacoan, Colombia; Curnow 2002) has copula *i* 'be' used everywhere save in negative and polar interrogative clauses, where the form *ki* must be employed.

There are languages in which some of the distinctions shown through a copula in a positive clause are neutralised under negation. For Anywa (Nilotic, Sudan and Ethiopia), Reh (1996: 302-8) reports that there are two copulas, *a@* and *b00(y)*. She explains that *a@s* is used to answer a question 'what kind of thing is it', as in:

- (41) *a@n=a@ cA0rCC*
 1sgCS=be blind.person
 I am blind

And *b00(y)* will be used to answer a question 'which one', as in:

- (42) *p00lCS b00! [- ilaal man-a@kwál gw04]CC*
 Paul be child RELATIVE-PAST-steal money
 Paul is the child who stole the money

The interesting feature is that, in a negative clause, *b00(y)* is replaced by *paa* and *a@y* either *paa* or *páthá*. That is, *paa* is used as negative correspondent for both copulas from positive constructions.

There are also examples in the opposite direction, when a negative copula exhibits more grammatical distinctions than its positive counterpart. For example, the copula *alia* 'be' is used in positive clauses in Tariana to cover all of semantic relations A1 – A5 and B, described on page 8. However, negative copula constructions are of two kinds (Aikhenvald 2003: 488-97):

- negative copula *sede* replaces *alia* for A3, Possession, A5 Location, and B, Existence.
- the regular negative suffix *-kade* is added to *alia* for A1, Identity, A2 Attribution and A4, Benefaction.

In Mangghuer, a Mongolic language from north-west China, 'finite verbs (with the exception of imperatives) must be marked for one of two pragmatically-determined categories'. Slater (2003: 116-7, 194-9) explains that what he calls the 'subjective' category is used when the A, S or CS argument is 1st person and in control in a declarative clause, and is 2nd person and in control in an interrogative. In all other circumstances the 'objective' category is marked. The interesting feature of copula constructions in this language is that separate forms are used for Identity and Attribution in negative copula constructions, but the same form is used for both in positive clauses:

		A1. Identity	A2. Attribution
POSITIVE	subjective	bi	
	objective	bang	
NEGATIVE	subjective	puzhi	(u)gui
	objective	puzhang	(u)guang

III Historical development

It is instructive to look at what copulas may develop out of, and what they may develop into. A common origin is for a regular intransitive verb, with referential meaning, to develop into a copula verb with relational meaning. Likely candidates are verbs of stance (typically 'sit', 'stand' and 'lie') or else 'go' or 'live' or just 'exist' (see also Kuteva et al. 2019: 479).

There are other paths of development leading to a copula. One is from a demonstrative or a 3rd person pronoun. In Egyptian, the form *pw* appears to have begun as a demonstrative, developed into a 3rd person pronoun and then into a copula 'be'. Gardiner (1927: 105) quotes the following sentence:

(51) Nwn pw ít ntrw
Nun he/be father gods

He then states: 'nothing but the context can decide whether the intended meaning was 'it is Nun, the father of the gods' or 'the father of the gods is Nun'.

Once a form has developed into a copula, it may not stop there. In Spanish, *estar* is used as a marker of progressive aspect and *ser* as a marker of passive. *Be* in English extends to both these functions; besides the copula *be* we also have a *be* in imperfective aspect *be ... -ing*, a *be* in passive *be ... -en*, and a fourth *be* in existential *there is/are/was/were*. And there are complex lexemes beginning with *be*, including *be about to*, *be up to*, *be up for*, *be in on*, *be out of*, *be for*, *be over* among many others. That is, copulas often develop into auxiliary verbs (and also light verbs).

14.8 Summary

(i) Besides intransitive and transitive clause types (whose predicates have referential meaning), many languages also have a copula clause construction where the predicate — here a copula verb — indicates a type of relation between its two arguments, copula subject (CS) and copula complement (CC).

(ii) The relations shown by a copula always include identity and/or attribution, and often also possession, benefaction and location. In some language there is a further type of copula clause, with just a CS argument, indicating existence.

(iii) In many — but not all — instances, CS has similar grammatical properties to intransitive subject (S). However, CC typically has quite different properties from other core arguments. For example, no example is known of CC being realised through a bound pronoun.

(iv) There may be more than one copula verb, typically 'be', which just refers to a state, and 'become', which refers to getting into a state. Copula verbs often have rather different morphological properties from referential verbs. They may mark less, or more, grammatical categories and may show irregular (sometimes suppletive) forms. In some languages there is a special negative copula which may show a different grammatical profile from its positive counterpart. In some languages, a copula verb may be omitted in certain circumstances; this may be in present tense (where this is the unmarked term in the tense system) or when the CS is 3sg (this being the unmarked term from the pronoun system).

References

- Aikhenvald, Alexandra Y. 2015. *The Art of grammar*. Oxford: Oxford University Press.
- Kuteva, Tania, Bernd Heine, Bo Hong, Haiping Long, Heiko Narrog, and Seongha Rhee. 2019. *World lexicon of grammaticalization*. Second, extensively revised and updated edition. Cambridge: Cambridge University Press.
- Zhang, Sihong. 2016. *A grammar of Ersu*. Munich: Lincom Europa.

The remainder are in *Basic Linguistic Theory*, Volume 2.

Non-verbal Predicates — What to Investigate

Please introduce the language: where spoken and by how many people. Succinct phonology (can be appendix). Typological profile.

A Basic grammar:

Aa Briefly describe structures of intransitive clause and transitive clause. (And of copula clause if there is one.)

Ab Briefly describe structure of noun phrase.

B Provide a list of both major (open) and minor (closed) word classes, and give the major functional possibilities for each.

C Give a detailed account of the structure of the predicate when it has a verb as head:

Ca Obligatory grammatical systems associated with the predicate from which a choice must be made (one term in the system may have zero realisation). For example:

- Ca1 Bound pronouns, and syntactic functions which they cross-reference.
- Ca2 Inflectional systems of tense, aspect, evidentiality, reality, telicity, etc.

Cb Optional derivational processes which do not affect transitivity but just add semantic information, e.g. 'start to do', 'want to do', 'do again', negation, 'on a raised surface', 'do quickly'.

Cc Optional derivational processes which affect valency. For example:

- Cc1 Derivations which reduce valency—passive, antipassive, reflexive, reciprocal.
- Cc2 Derivations which increase valency—causative, applicative.

D List the word classes which can be head of a predicate (in place of a verb).

Da Can a multi-word constituent (e.g. an NP) be predicate head?

Db Does the hierarchy suggested in Box 5 on page 6 apply?

E Give a detailed account of the structure of the predicate when it has something other than a verb as head. Consider, in turn, each of the topics under C.

F Describe the syntactic properties of verbs, e.g. can they enter into serial verb constructions.

Do those non-verbs which function as head of the predicate share any of these properties?

Do the suggestions in Box 4 on page 6 apply?

Copula Clauses — What to Investigate

Please introduce the language: where spoken and by how many people. Succinct phonology (can be appendix). General grammatical characteristics.

The main questions to confront are as follows.

A Does the language have one or more copula verbs? The criteria for recognising a verb as copula are:

- It must be able to occur with two core arguments: copula subject (CS) and copula complement (CC).
- It has a relational rather than a referential meaning.
- It is used for, at least, relations of A1, Identity (NP as CC) and/or A2, Attribution (adjective as CC).

B What are the relations covered by each type of copula clause.

(i) Those involving two arguments (CS and CC) may be Identity, Attribution, Possession, Benefaction, Location, as set out in Table 14.1 on page 8. There could be further semantic relations in particular languages.

(ii) There may be secondary use of a copula with just one argument (CS): This generally indicates B, Existence (CS is then an NP) or may show 'happening' (with a complement clause as CS).

For each of these relations, if it is not realised through a copula clause, the grammarian should say *how* it is realised in the language.

C What is the marking for CS?

Which of the subject properties (shown by A argument or by S argument or by both) does the CS argument also show?

Syntactic properties may include some or all of: subject possibilities in imperatives (and possibilities for omission); antecedent control over reflexive pronouns; role in coordination, with respect to S/O or S/A pivot, or with respect to 'same subject' and 'different subject' in switch-reference; constraints on coreferentiality and possibilities for omission in complement clause and relative clause constructions.

Coding properties may include: case marking on NP; place of NP in constituent order; marking by bound pronominal elements.

D What is the marking for CC?

Does the CC argument show any properties in common with other arguments (A, S, O, CS, peripheral) or does it show significant differences?

Can the CC be complex, consisting of a noun or adjective plus a governed NP or of a subordinate clause? For example, in English *She*_{CS} *is* [*clever with her hands*]_{CC}, [*My intention*]_{CS} *is* [*that my wife should never want for anything*]_{CC}. Can a CC take any case-marking?

E Do copula clauses behave like intransitive and transitive clauses with respect to such operations as: (a) negation; (b) imperative; (c) polar interrogative and content interrogative; (d) causative and applicative derivations (and other valency-changing derivations); (e) their role in serial verb constructions and compounds (if applicable)?

F What are the forms of the copula verb(s)? Do they show the same — or less, or more — TAM and other distinctions as non-copula verbs? Do they have irregular or regular inflection?

G Do copula verb-forms have other functions in the grammar? (For example, *be* in English also features in progressive *be ... ing* and in passive *be ... -en*, as in *She is running*, *He was taken in (by the police)*.)

H Are there lexical homonyms of a copula verb? For example, a single form may function as (i) a copula verb, and (ii) an intransitive lexical verb of stance or motion ('sit', 'stand', 'lie', 'go', etc.)

I Can you say anything about the diachronic origin of a copula verb? (Two common origins are: from a verb of stance or motion; and from a demonstrative or a 3rd person pronoun.)

J Can you say anything about copula constructions in (i) genetically closely related, and/or (ii) geographically contiguous languages? Do they have similar constructions? Do they have similar forms for copula verbs (perhaps with similar irregularities)? If there are similarities between languages in copulas and copula constructions, does it appear that these are due to shared genetic inheritance, or to areal diffusion?

If there are similarities in copula constructions but differences in copula forms between adjacent languages, does it appear that 'having the copula construction type' has diffused, with each language developing copula verbs from its internal resources in its own individual way?

K If a language has both copula clauses and non-verbal predicates, comment on their semantic similarities and differences, contrasting their grammatical features and distribution.