Connective Constructions in the World’s Languages: A Functionalist Approach
Evangelia Adamou, Denis Costaouec

To cite this version:
Evangelia Adamou, Denis Costaouec. Connective Constructions in the World’s Languages: A Functionalist Approach. La Linguistique, PUF, 2010, 46 (1), pp.43-80. <10.3917/LING.461.0043>. <hal-00674209>

HAL Id: hal-00674209
https://hal.archives-ouvertes.fr/hal-00674209
Submitted on 26 Feb 2012

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L’archive ouverte pluridisciplinaire HAL, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d’enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.
A partir de l’étude de 60 langues et en développant les travaux de Clairis et al., nous élaborons une typologie des structures syntaxiques (constructions connectives) qui permettent de satisfaire un besoin communicationnel général : l’attribution d’une qualité, l’identification ou la classification. Nous définissons les constructions connectives par la disjonction entre le noyau syntaxique et le noyau sémantique, ce qui les distingue des constructions nucléaires. Syntaxiquement les constructions connectives peuvent prendre la forme d’une connexion directe entre le qualifiant et le qualifié, d’une connexion via un connecteur non verbal ou d’une connexion via un verbe. Plusieurs de ces possibilités peuvent être utilisées dans une langue donnée, chacune ayant ses propres contraintes. Nous proposons de classer les langues en cinq types sur la base des combinaisons possibles entre ces stratégies.

1. Introduction

This paper explores a specific domain in language communication: the attribution of a quality, identification and membership from the perspective of the syntactic constructions that express it crosslinguistically. In order to satisfy communication needs in the field of attribution, languages use syntactic resources which converge on many levels, but which also show specific constraints. Most frequently, the syntactic means used to establish attribution are not specialized. Rather, the languages adapt their general syntactic resources to the specificities of attributive constructions.

1.1. The theoretical framework

This study furthers reflections on copula clauses and non-verbal predication spanning the 20th century, beginning with Meillet1 (1906) and Benveniste2 and more recently with the functional-typological studies by Stassen3 and Pustet4.

based on the traditional parts of discourse in which ‘predicate’ is a logical-semantic term.

We present here a functionalist approach, following Babiniotis & Clairis (1999) and Clairis et al. In this framework, a “connective syntax” was opposed to a “nuclear syntax”. We suggest here a more elaborate definition of the two types of constructions, connective vs. nuclear, based on the disjunction or conjunction of the syntactic nucleus (the receiver of all the syntactic determinations) and the semantic nucleus (center of semantic specifications).

In the “nuclear constructions”, the syntactic nucleus is also the center of the semantic specifications.

In the “connective constructions”, a syntactic connection (direct or indirect) is established between two units, semantically corresponding to a “qualified” and a “qualifier”. In this case, the syntactic nucleus is different from the center of the semantic specifications (see in detail Figures 2-5).

In the first study by Babiniotis & Clairis (1999), based on Modern Greek, the so-called “connective syntax” was restricted to the verbal connectors. Verbal connectors included the traditional “copulas”, “semi-copulas” and, more controversially, full-lexical verbs. In Clairis et al. (2005), the study was extended to 10 more languages, and non-verbal connective constructions were added. Connective syntax thus came to cover all the processes used by languages to express quality, identification and membership, and which form a complete sentence.

One of the outcomes of the 2005 pilot study was a continuum of connective constructions, ranging from direct connection to connections using non specialized verbs (definitions and examples in § 3-6):

---


Table 1. The connective strategies

<table>
<thead>
<tr>
<th>Direct connection</th>
<th>Non-verbal connectors</th>
<th>Verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a) specialized</td>
<td>a) connective</td>
</tr>
<tr>
<td></td>
<td>b) non-specialized</td>
<td>b) non-connective</td>
</tr>
</tbody>
</table>

More than one of the various connective strategies are generally used in one language. Based on the possible combinations of connective strategies crosslinguistically, five types of languages are suggested in this paper (see § 7). Moreover, this study shows that the use of the available strategies in a language is determined by constraints relative to the types of predicates, the types of clauses and the TMA markers involved (see § 6).

1.2. Corpus

This paper is based on a sample of 60 languages, including the 11 languages of the pilot study which were based on first-hand data (Clairis et al. 2005), and completed by data available in grammatical descriptions. As can be seen in the Map 1, the sample includes languages from a wide range of families: Africa (9), Asia (13), Eurasia (2), Europe (11), Australia and Oceania (11), North America (9), South America (7).

Map 1. The Language Sample

---

8 AFRO-ASIATIC Berber; Moroccan Arabic; Yemeni Arabic; Uldeme - ALACALUFAN Qawasqar - ALTAIC Turkish - ARAWAKAN Arawak (Guyana) - AUSTRO-ASIATIC Araki; East Futunan; Kambera; Mwotlap; Nêlêmwa; Palau; Sakalava (Malagasy); Tagalog - AUSTRALIAN Wambaya; Yuwaalaraay - BASQUE Basque - CHON Tehuelche - CREOLES Martinique French Creole; Nenget - DRAVIDIAN Badaga - ESKIMO-ALEUT Kalaallisut; Tinumiisut - INDO-EUROPEAN Breton; French; Modern Greek; Nashta; Romani; Russian; Spanish; Welsh - JAPANESE Japanese - KARTVELIAN Georgian - KOREAN Korean - MAYAN Tzeltal - ALGIC Cree Montagnais - NAKH-DAGHESTANIAN Chechen; Kryz - NORTH-CENTRAL NEW GUINEA I’saka - NORTHWEST CAUCASIAN Ubykh - NIGER-CONGO Bijogo; Gbanzili; Langi; Mankon; Nanañwe - NILO-SAHARAN Gula - OTO-MANGAINE Ixcatl; Zapotec - PUREPECHA Purepecha - SINO-TIBETAN Deuri; Hayu; Qiang; Thulung - TUPIAN Kamayura; Sikuani - URALIC Hungarian; Saami - UTO-AZTECAN Classical Nahuatl - YURAKARE Yurakaré.
2. Types of units involved in connective constructions

We observe that not all types of units can be used as qualified units and qualifiers but that most units are specialized in one use or the other. Costaouec\(^9\) establishes a hierarchy depending on the frequency of the various units used as predicates or qualified units (slightly modified here):

<table>
<thead>
<tr>
<th>Most frequently predicates</th>
<th>Predicates or qualified units</th>
<th>Always qualified units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stative predicates</td>
<td>Adjectives</td>
<td>Nouns</td>
</tr>
<tr>
<td></td>
<td>Numerals</td>
<td>Proper nouns</td>
</tr>
<tr>
<td></td>
<td>Indefinites</td>
<td>Personal pronouns</td>
</tr>
<tr>
<td></td>
<td>Interrogatives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adverbs</td>
<td></td>
</tr>
</tbody>
</table>

This syntactic hierarchy reflects a semantic specialization where the most definite, specific units –expressed by personal pronouns and proper nouns\(^10\)– are obligatorily qualified units. On the contrary, units expressing generic qualities, such as stative predicates and adjectives, are most frequently used as predicates. Nouns, on the other hand, can be used either as predicates or qualified units, with equal frequency.

3. Direct connection in the world's languages

3.1. Definition

“Direct connection” includes all cases where a syntactic relation is established between a predicate and a qualified unit with no other item involved.

Martinique French Creole (Creoles)

(1.) \(3\text{SG} \quad \text{be} \quad \text{handsome}

‘He’s handsome.’ (Jeannot-Fourcaud\(^11\): 128)

This connection is established between two non-verbal units which together form a complete sentence (Clairis et al. 2005). But it can also occur between a non-verbal unit and a stative predicate, or between a non-verbal unit and a unit with mixed characteristics, as is often the case in languages with weak “noun-verb”


\(^10\) French proper nouns in sentences such as C’est un Casanova ‘He’s a Casanova’ can be analyzed as nouns (transfer between syntactic classes) since they can be determined by an adjective C’est un vrai Casanova ‘He’s a real Casanova’, something not possible in their use as ‘true’ proper nouns.

opposition (“predicative adjectives” with verbal, non-verbal or mixed encoding in Stassen 2008\textsuperscript{12}). The qualifier unit is both the predicate and the syntactic nucleus of the sentence, i.e. it is the bearer of the language’s syntactic determiners (TMA, adverbs), restricted in some languages, and its semantic role is to qualify another unit (see Figure 2):

![Figure 2. Direct connection](image)

Direct connection appears to be a very frequent strategy crosslinguistically, having very rich means distinguishing it from adjectival constructions.

### 3.2. Main or secondary strategy

Direct connection can be the main strategy in some languages, i.e. the strategy used for the most unmarked contexts:

Tseltal (Mayan)

(2.) Bijteswanej –on
teacher BI

‘I am a teacher.’ (Polian\textsuperscript{13}: 210)

Frequently, direct connection is the main strategy but has restrictions that require the use of other strategies. For example, in Hungarian direct connection is the main strategy but it is restricted to either connections between nouns, between a noun and an adjective or between a noun and the third person pronoun (for the other grammatical persons, a connecting verb is necessary).

Hungarian (Uralic)

(3.) Őn tanár
3SG professor

‘He is a professor.’
or ‘You (Respectful) are a professor.’ (Nyéki\textsuperscript{14})

It can be a possible but secondary option, i.e. a marked strategy from a pragmatic viewpoint (e.g. exclamation):

---


\textsuperscript{14} Lajos Nyéki, 1988, \textit{Grammaire pratique du hongrois d’aujourd’hui}, Gap, OPHRYS–POF.
It can also appear in specific constructions, as in Kryz (Authier 2009), or in Breton where it is only used in dependant clauses:

Breton (Indo-European)

(5.)  pemp buoc'h he d-oa ha i treut
five   cow   3SG.F  3SG-be/PST and 3PL thin

‘She owned five cows and all of them (were) thin.’
litt. ‘Five cows was her own and they thin.’ (Avezard & Costaouec 2005: 115)

In some languages direct connection is impossible (i.e. Korean, Koh 2005).

3.3. Types of units

Following are some examples of the types of qualified and qualifier units involved in direct connections (Qualified item-Predicate):

Proper Noun-Noun
Moroccan Arabic (Afro-Asiatic)
(6.) ḥmed muṣallīm
‘Ahmed is a teacher.’ (Chatar-Moumni 2005)

Noun-Noun
Hungarian (Uralic)
(7.) Barát-om mérnök
friend-POSS1 engineer
‘My friend is an engineer.’ (Nyéki 1993)

Noun-Adjective
Yuwaalaraay (Australian)
(8.) burul nhama dhayn
big that man

---

17 Cécile Avezard & Denis Costaouec, 2005, Syntaxe connective en breton, Typologie de la syntaxe connective, p. 91-106.
18 Huong-Won Koh, 2005, Syntaxe connective en coréen, Typologie de la syntaxe connective, p. 107-123.
20 Lajos Nyéki, 1988, Grammaire pratique du hongrois d’aujourd’hui, Gap, OPHRYS–POF.
'That man is big.' (Williams 1980: 69)

**Personal pronoun-Noun**

In some languages, direct connection can be established between a clitic and a non-verbal unit. In Curnow (2000) this is analyzed as an “inflectional copula construction”:

Pipil (Uto-Aztec)

(9.) ni-
1SGSUBJ ta:kat
man

‘I am a man.’ (Campbell 1985: 54)

**Personal pronoun-Stative predicate**

Kambera (Austronesian)

(10.) [Na τau nuna] k na3-hàmu
ART person DEI.3S 3sN be.good

‘That person (there) is a good (person).’ (Klamer 1998: 92)

**Personal pronoun-Adjective**

Zapotec (Oto-Manguean)

(11.) gasgh =ba’
black =3AN

‘It is black.’ (Sonnenschein 2005: 35)

**Noun-Stative predicate**

Gbanzili (Niger-Congo)

(12.) ndɔŋ̂o-níʔ ʔá nzëiĩ
pepper-DEF.DEM 3SG AOR/be.strong

‘The pepper is hot.’ (Rombi & Thomas 2006: 55)

**Equative constructions**

A specific direct connection strategy is the equative structure. We use this term here not as a semantic term but rather to refer to a symmetric syntactic construction where the qualified unit is first presented, then qualified:

---

Deuri (Sino-Tibetan)

(13.) la popô-wâ su popô
this tree-TH high tree
‘This tree is a high tree.’ (Jacquesson 2005\textsuperscript{27}: 110)

\section*{3.4. Identification of direct connections vs. nuclear and adjectival constructions}

Crosslinguistically, we observe that direct connections are distinct from the adjectival constructions through a variety of strategies:

\textbf{Word order}

Nashta (Indo-European, Adamou 2005\textsuperscript{28}: 175)

direct connection \hspace{2cm} adjectival use

(14.a) taifa guljama
family big
‘The family is big.’

(14.b) guljama taifa
big family
‘big family’

\textbf{Predicate marker}

In Deuri, a predicate marker on the qualifier indicates a connective construction:

Deuri (Sino-Tibetan, Jacquesson 2005\textsuperscript{29}: 111)

direct connection \hspace{2cm} adjectival use

(15.a) la popô-wâ su-i
this tree-TH high-P
‘This tree is high.’

(15.b) su popô
high tree
‘high tree(s)’

Other uses of the predicate marker:

(16.) la mosi-ya ko-i
this man-TH come-P
‘This man is coming.’

\textbf{Non-predicate marker}

In Palau, direct connection is distinct from adjectival use for which the marker \textit{el} is required:

\begin{thebibliography}{9}
\bibitem{Adamou2005} Evangelia Adamou, 2005, Syntaxe connective en nashta, \textit{Typologie de la syntaxe connective}, p. 171-182.
\end{thebibliography}
Palau (Austronesian) direct connection

(17.) Ak smécher
PREFSUJ be.ill
‘I am ill.’ (Lemaréchal 199130: 62)

adjectival use

(18.) Blái əl bechés
house * new
‘A house which is new…’ (Lemaréchal 1991: 144)

Negation marker

In Nêlêmwa a specific negation marker, kio, can be an indication of connective use:

Nêlêmwa (Austronesian)

(19.) kio pânaat ‘It’s not a stone.’ (Bril 200231: 91)

Case marker

In Russian an adjective can be predicate in a direct connection with a pronoun or a noun, in which case the qualified unit is marked by the nominative case and the predicative adjective can be unmarked:

Russian (Indo-European)

(20.) otec gord rezul'tatami
father.NOM proud.PRD-ADJ.SG.M results.INST.PL
‘Father is proud of the results.’ (Avgustinova 200632: 7)

In other sentences, both the predicate (noun or adjective) and the qualified pronoun are marked by the nominative case:

Russian (Indo-European)

(21.) on durak | tolstyj
he.NOM.SG.M fool.NOM.SG.M | fat.NOM.SG.M
‘He is a fool / fat.’ (Avgustinova 2006: 2)

In some constructions, the genitive case is used:

Russian (Indo-European)

(22.) on vysokogo rosta
he.NOM.SG. M high. height. GEN
‘He is of a high height (i.e. tall).’ (Avgustinova 2006: 2)

In adjectival constructions, the adjective must be marked by the nominative case:

Russian (Indo-European)

(23.) gordyj otel
proud. NOM SG. M father. NOM
‘a proud father…’ (Avgustinova 2006: 8)

**Personal pronoun**

In Arawak (Patte 2008: 58-63) two personal pronoun paradigms exist: the first for agents of active verbs (lu in the example below); the second for patients and in stative predicates (i/ni in the examples below):

Arawak (Arawakan)

(24.) lu-fara no
3SGM-kill 3SGF
‘He kills her.’ (Patte 2008: 59)

Arawak (Arawakan)

(25.) halekhebe-ka i
happy-ACC 3SGM
‘He’s happy.’ (Patte 2008: 62)

**TMA markers**

In Sikuani, future and iterative markers are suffixed in verbal predication (-ena and -biaba) but are independent in connective constructions (respectively tsane and tsabiani):

Sikuani (Tupian)

direct connection

(26.) tahawihanu tsane
‘He will be my usual commercial partner.’
(Queixalós 2000: 33)

---


nuclear use

(27.) huna-ena
‘He will grump.’ (Queixalós 2000: 33)

(NB: Different personal paradigms also distinguish the two predication types).

**Intonation**

Little evidence is available for this strategy, probably due to lack of case studies. In Niger-Congo languages, different intonation patterns are realized depending on whether the utterance is a complete predicate or an incomplete sentence, a phenomenon also known as “predicative lowering”. This general strategy is found in all types of sentences, and can also serve to distinguish between a complete predicative sentence and an incomplete adjectival construction. For example in Langi:

Langi (Niger-Congo, Dunham 2005\(^*\): 117)

(28.a) mburi yaani ndudi
‘My small goat.’

(28.b) mburi yaani ndudi
‘My goat is small.’

**Derivational processes**

In Bijogo the stative predicate in the adjectival construction receives a suffix \(-a\) or \(-ɛ\):

Bijogo (Niger-Congo) (Segerer 2002\(^*\): 169)

(29.) kɔ-tɛɲ kɔ-ɲɔy ‘The meat is cooked.’

(30.) kɔ-tɛɲ kɔ-ɲɔɛ-a ‘the cooked meat’

4. non-verbal connectors in the world’s languages

**41. Definition**

Non-verbal connectors play the role of syntactic bridges between the predicate and the qualified unit but do not receive any syntactic determination (e.g. TMA markers):

![Figure 3. Connection through a non-verbal connector](image)

---

Non-verbal connectors can be specialized to connective constructions:

Nanafwe (Niger-Congo)

(31.) kòfi  ti  jàswá
   Koffi   SP. CON.   boy
   ‘Koffi is a boy.’ (Bohoussou & Skopeteas 200537: 160)

Or non-specialized (also used e.g. as a personal pronoun, demonstrative, locative, etc.):

Moroccan Arabic (Afro-Asiatic)

(32.) āna  hūwa  al  mu’eallim
   1SG  3SG  DEF   teacher
   ‘I am the teacher.’ Litt.: I him the teacher
   (Chatar-Moumni 200538: 65)

4.2. Specialized connectors

Specialized connectors are very rare crosslinguistically and appear to be areal (found mostly in Africa, with some in Asia). For example, in Nanafwe, tì is a specialized connector with no other use (in other Niger-Congo languages it can be a demonstrative):

Nanafwe (Niger-Congo)

(33.) jàswá-n  tì  kpâ
   boy-DEF   SP. CON.   good
   ‘The boy is good.’ (Bohoussou & Skopeteas 200539: 161)

The use of specialized connectors is limited by various constraints depending on the use of TMA markers. Specialized connectors can be restricted to interrogative sentences or may only appear with specific types of qualified units. For example, in Koto and Zura, two Gula dialects, one finds a connector, dubbed a “predicative particle” á, specialized in interrogative connective sentences:

Gula (Nilo-Saharan)

(34.) sè  á  dé’  gə  wa
   2PL  PRED   who   PL   INT
   ‘You, who are you?’ (Nougayrol 199940: 65)

In Yemeni Arabic connection is frequently effected via two specialized connectors, namely gad “declarative” and ād “durative”, which receive the personal pronoun (subject):

Yemeni Arabic (Afro-Asiatic)

(35.) ūād-i marat-ak
  PART-3SGF wife-2SGM
  ‘Is she still your wife?’ (Naïm 2009⁴¹: 175-176)

With these connectors, negation is marked by mā…f and not by the mi/u or māf used in direct connection.

Time can be lexically marked (e.g. by an adverb), but the grammatical expression of past needs connection via the verb kān ‘be’:

Yemeni Arabic (Afro-Asiatic)

(36.) mā gad kān-ʃ msalliḥ
  NEG PART be.3SGM-NEG arm.PTCP
  ‘He was not armed.’ (Naïm 2009: 175-176)

4.3. Non-specialized connectors

Some non-verbal units, having full lexical meaning in other contexts, can be employed as connectors: personal pronouns, demonstratives, focus particles, relative pronouns, presentatives and locatives. Non-specialized connectors generally add a focalization effect to the sentence.

Personal pronouns
In Moroccan Arabic hūwa ‘him’ can be employed as a connector (loosing its properties as a pronoun) with additional focus as compared to direct connection:

Moroccan Arabic (Afro-Asiatic)

(37.) ūānā hūwa al muءeallīm
  1SG 3SG DEF teacher
  ‘I am the teacher.’ Litt. : ‘I him the teacher’ (Chatar-Moumni 2005⁴²: 65)

Demonstratives
Likewise the demonstrative pā (formerly the imperative of the verb ‘see’), when employed as a connector receives the third person singular pronoun and introduces the notion of concomitance:

---

Focus particles

Another case of non-verbal units used in connective structures is the Tseltal focus particle *ja’*, used with definite nouns (indefinite nouns can be connected directly):

Tseltal (Mayan)

(39.) Mach’a-Ø =a me =to
who-B3 =DIST DEM:DIST =DEIC

/ja’-Ø j-pat.xujk’ -Ø
/FOC-B3 A1-neighbor -B3

‘Who is that?’ / ‘This is my neighbor.’ (Polian 2006\(^43\): 214)

Relative pronouns

In some Gula dialects the relative pronoun *ná* can introduce predicative adjectives:

Gula (Nilo-Saharan)

(40.) débō nā nā náb’
somebody DEF PRED tall

‘It’s somebody tall.’ (Nougayrol 1999\(^44\): 66)

Presentatives

Some non-specialized connectors can be used in specific equative structures such as the presentative *ko* in East Futunan:

East Futunan (Austronesian)

(41.) ko lona igoa ko Fakagalo
PRED his name PRED Fakagalo

‘His name is Fakagalo.’ (Moyse-Faurie 1997\(^45\): 129)

Locatives

In Pulaar the locative *woni* is used in cases of focalization:

Pulaar (Gaawoore) (Niger-Congo)

(42.) Hammo woni dimo
Hammo FOC-PRED noble

---


‘It’s Hammo who is noble.’ (Sow 2003: 99)

5. Connection via a verb

5.1. Definition

Following Babiniotis & Clairis (1999), as well as Clairis et al. (2005), the present study of connective constructions also includes the full lexical verbs.

In the present study we distinguish two categories of verbs which participate in connective constructions:

a) connective verbs, traditionally known as copulas:

a verb of the type ‘to be’ or ‘to become’ or a verb with full lexical meaning (‘to stand’, ‘to see’, etc.) but frequently used with the meaning ‘to be’;

Zapotec (Oto-Manguean)

(43.) n-ak=be maestro
STAT.be=3INF teacher
‘They are teachers.’ (Sonnenschein 2005: 178)

b) non-connective verbs:

verbs not specialized in connective constructions and adding lexical meaning to the attribution of quality (‘to work as’, ‘to elect’, etc.).

Spanish (Indo-European)

(44.) Actúa en tanto que presidente de la república
‘He acts as president of the republic.’

This is a simplification of the categories proposed in Babiniotis & Clairis (1999) and Clairis et al. (2005) which distinguish four levels: “connective verbs” (‘to be’, ‘to become’ copulas), “quasi-connective verbs” (for some verbs taking different case markings in Greek), “nuclear-connective verbs” (for transitive connective verbs) and “non-connective verbs” (for intransitive connective verbs). In practice

---


47 Aaron Huey Sonnenschein, 2005, A Descriptive Grammar of San Bartolomé Zoogocho Zapotec, Munchen, Lincom GmbH.
though, this has proved to be far too complicated for a large scale typological project.

5.2 Connective verbs

Connective verbs can 1) be the only strategy used in a language, 2) be a secondary strategy with some specific constraints involved (e.g. TMA markers), or 3) be impossible in the language. Syntactically and semantically the use of a connective verb requires the presence of a predicate. In some cases, the predicate’s determinations are restricted when used in nuclear constructions. Morphological factors can also help identify the predicate in some languages, for example the gender and number markers which agree with the subject in French.

‘To be’, ‘to become’

The most well known strategy, although not necessarily the most frequent one crosslinguistically, is connection via a verb of the type ‘to be’ or ‘to become’, traditionally called a copula. In most studies ‘to be’ is not considered a real verb and therefore is dubbed copula or verb copula. The meaning of this term, from the Latin copula, shows that it is mostly considered for its syntactic role in connecting two units. The reason for this is that ‘to be’ frequently has no specific lexical meaning.

Various analyses have been proposed in the rich literature on the status of copulas. For Sapir\(^48\) and Bally\(^49\) the nucleus in the case of a ‘to be’ copula verb is a complex formed by the copula verb and the predicate. This is partially Martinet’s analysis\(^50\) who identifies a “complex predicate” for constructions involving a “full copula” (like ‘to become’), but who considers, like Meillet\(^51\), that ‘to be’ is an “empty copula” which serves only to establish the connection between the two members. Lyons\(^52\) also considers that the copula verb is only a recipient for TMA markers. The verb ‘to be’ is a semantically empty verb generated by the grammatical rules of the language and used as a link between the subject and the predicate in traditional logic. This is the approach followed by Dik\(^53\) (p. 132), for whom the copula is no more than a grammatical device, and by Givón who names copular verbs “dummy verbs”, acting as the syntactic head of the verb phrase but carrying a reduced lexical-semantic load (Givón\(^54\): 119). On the

contrary, for Benveniste\textsuperscript{55} (p. 157) a sentence with ‘to be’ is a verbal sentence just like all other verbal sentences. This is the approach we follow here (see for a detailed discussion Clairis et al. 2005): a verb, be it a “copula” or not, is a unit belonging to a syntactic class with specific determinations (i.e. TMA) and which functions as a syntactic nucleus.

Here are some examples of connective verbs found crosslinguistically:

**Basque (Basque)**

(45.) Etxe hori eder- ren- a
house DEM2/ABS(Ø) beautiful- most- DEF/ABS(Ø)
d- u- k
3ABS- be- AL.MASC
‘This house is the most beautiful.’ (Coyos 2005\textsuperscript{56}; 94)

**Ixcatec (Oto-Manguean)**

(46.) ?i²na³ na³ ša²ña²-ku¹-na³ na³mi¹
1SG be-ACC-1SG priest
‘I am already a priest.’
(Fernández de Miranda 1961\textsuperscript{57}, glosses by Costaouec)

Quite often, the connective verb intervenes when TMA markers are required, i.e. as a complementary strategy. For example, in Mankon the verb bé ‘to be’ is used when temporal specification is needed or with negation:

**Mankon (Niger-Congo)**

(47.) à lô mbé suñá
1SG P₀-AUX C[-F]-be bird-ME
‘It was a bird (that made this noise).’ (Leroy 2007\textsuperscript{58}; 331)

Verbs like ‘to be’ or ‘to become’ generally serve to qualify the subject; in causative constructions, it is possible to qualify an object:

**Ubykh (Northwest Caucasian)**

(48.) a -gičä-š -qa
he was tall
‘He was tall.’ (Dumezil 1931\textsuperscript{59}; 22)

\textsuperscript{55} Emile Benveniste, 1966, La phrase nominale, Problèmes de Linguistique Générale 1, Paris, Gallimard, p. 151-167

\textsuperscript{56}Jean-Baptiste Coyos, 2005, Syntaxe connective en basque, Typologie de la syntaxe connective, p. 73-89.

\textsuperscript{57} Maria Teresa Fernandez de Miranda, 1961, Diccionario ixcateco, Mexico, Instituto nacional de antropología e historia.


\textsuperscript{59} Georges Dumézil, 1931, La langue des Oubykh, Paris, Edouard Champion.
Ubykh (Northwest Caucasian)

(49.) ɑ -giζ-ɑ̈-nɑ-š -qa
they made.be tall
‘They made him tall.’ (Dumezil 1931: 22)

Example of the so-called ‘dynamic copula’, ‘to become’:

Ubykh (Northwest Caucasian)

(50.) yedānā  t`it-λ,oyusa- nɑ ašqa
very man.hero became
‘He became a hero.’ (Dumezil 1931: 22)

In Nahuatl, some superlative verbs, such as mo-cem-aquia ‘to be, to fully become’ can also be used in connective constructions (in this case the predicate follows the verb, contrary to the other types of predicative constructions):

Nahuatl (Uto-Aztecan)

(51.) Mo-cem-aquia  nextic
to.be.totally grey
‘It is fully grey.’ (Launey 1994: 112)

Verbs with full lexical meaning also used as copulas

Among the connective verbs, we will mention the case of intransitive verbs which have also developed uses as connective verbs. For example in Australian languages, posture verbs ‘sit’, ‘lie’, ‘stand’- as well as motion verbs e.g. ‘go’- (Dixon 2002: 22-23) have developed a “copula” meaning ‘to be’. This is also the case in Papuan languages where the verbs ‘say’ and ‘hit’ also function as connective verbs:

Kewa (Papuan)

(52.) ni kadipi  te-a
I red say-3SG.PRES
‘I am red.’ (from the sun)
(Franklin 1981 cited in Dixon 2002)

For copulas deriving from verbs of posture in Tibeto-Burman languages see Noonan & Grunow-Hårsta, Post64.

Connective verbs are very frequently non-specialized. For example in Thulung (Sino-Tibetan) the native “copula” verb, bumu ‘to be, to live, to stay’ is used in connective, locational, existential and possessive functions, and as an auxiliary to form aspectual constructions such as progressives (Lahaussois 2002: 174-178). Moreover, Güldemann (2008) shows that ‘to be’ or ‘to become’ verbs are often used as quotative markers across the languages.

5.3 Non-connective verbs

Non-connective verbs are mostly used in nuclear constructions and although they are not specialized in connective constructions, they can be used as such. In their connective use, they add extra lexical meaning to the connection between the predicate and the qualified unit. As nuclear verbs, they can be either intransitive or transitive, or both. Non-connective verbs usually show a change in meaning when used in connective constructions as well as a change in valency, requiring an additional predicate: e.g. Il passait pour le maître du pays ‘He was considered the country’s master’ is distinct from the intransitive verb ‘passer’ as in Il passe dans la rue ‘he’s walking by in the street’. Moreover, non-connective verbs accept complementary determination such as adjectives, something not possible in their nuclear uses e.g. Il part furieux ‘He leaves furious’. This category is rarely taken into consideration in descriptive studies and was the most difficult to document.

French (Indo-European)

Connective use

(53.) Il passait pour le maître du pays
‘He was considered the Master of the country.’ (Clairis et al. 2005: 30)

Nuclear intransitive use

(54.) Il passe dans la rue ‘He’s passing by on the street.’

Nuclear transitive use

(55.) Passe-moi le sel ‘Pass me the salt.’

---


Intransitive nuclear verbs used in connective constructions

Intransitive verbs may be used in connective constructions introducing a subject predicate:

Nashta (Indo-European)
Connective use
(56.) izlja-va-m kutfabaʃia
       come.out-imperfective-1SG village.president
       ‘I’m elected village president.’ (Adamou 2005: 177)

Nuclear use
(57.) izlja-va-m vonka
       come.out-imperfective-1SG outside
       ‘I’m going out.’ (Adamou 2005: 177)

Nahuatl (Uto-Aztecan)
(58.) Chipac-pōl  icac
       resplendent to.be.standing.up
       ‘He’s standing up quite resplendent.’ (Launey 1994: 112)

Basque (Basque)
(59.) Pepita neskame
      Pepita/ABS(Ø) servante/ABS(Ø)
      joa- n z- e- n
      go- ACC 3SG/ABS- be- PAST
      ‘Pepita became a maidservant.’ (Coyos 2005: 82)

Transitive nuclear verbs used in connective constructions (subject predicate)
One of the observations made in Clairis et al. (2005) was the fact that connective constructions can also be transitive, contrary to the traditional distinction between transitive and intransitive predication (Stassen 1997) or transitive, intransitive and copula clauses (Cumow 2000, Dixon 2002: 1). Clairis et al. propose calling these verbs “nucléo-connectifs”, in order to stress their ability to combine both nuclear and connective characteristics. In this case, a transitive verb can be the nucleus governing a subject and an object at the same time. Here are some examples of transitive verbs with a subject predicate:

69 Jean-Baptiste Coyos, 2005, Syntaxe connective en basque, Typologie de la syntaxe connective, p. 73-89.
French (Indo-European)
Connective use
(60.) Ces enfants constitueront la société de demain.
‘These children will form the society of tomorrow.’ (Guérin 2005: 147)

Nuclear use
(61.) Il constitue péniblement la dot de sa fille.
‘He is painstakingly constituting his daughter’s dowry.’

Nanafwe (Niger-Congo)
Connective use
(62.) ɔ̀ swàn kòfí
3SG learn Koffi
‘His name is Koffi.’ (Bohoussou & Skopeteas 2005: 164)

Nuclear use
(63.) ɔ̀ swàn åŋlè
3SG learn English
‘S/he learns English.’ (Bohoussou & Skopeteas 2005: 164)

Turkish (Altaic)
Connective use
(64.) Köpek güzel görün –üyor
dog beautiful be.seen PRES.PROG.
‘The dog seems beautiful.’ (Divitioglu-Chapelle 2005: 205)

Nuclear use
(65.) Köpeğ –i gör –üyor –um
dog -ACC. see -PRES.PROG. -1SG
‘I see the dog.’ (Divitioglu-Chapelle 2005: 205)

The transitive verb ‘to do’ in the middle voice:
Purepecha (Purepecha)
(66.) pedru ú–küri-fa-ti atfati
Pedro do–MIDDLE.VOICE-prog.–ASS.3 man
‘Pedro is becoming a man.’ (Chamoreau 2005: 193)

72 Elif Divitioglu-Chapelle, 2005, Syntaxe connective en turc, Typologie de la syntaxe connective, p. 199-211.
Transitive nuclear verbs with an object or subject predicate

Transitive verbs, in their connective uses, can introduce a subject or an object predicate depending on their diathesis, i.e. active/passive, active/reflexive, active/middle voice alternations.

Figure 6. Connection via a transitive verb

Thus in accusative languages such as French or Greek, these verbs, in the passive voice, may directly take an attribute function (of the subject) as function, obligatorily expressed or not:

French (Indo-European)
Attribution of a quality to the subject (passive voice):
(67.) *Paul est élu président (par ses collègues).*
‘Paul is elected president (by his colleagues).’ (Clairis et al. 2005: 28)

On the contrary, in the active voice, i.e. with a different orientation, these same verbs may take an attribute of their object (obligatory with some verbs, optional with others):

French (Indo-European)
Attribution of a quality to the object (active voice):
(68.) *Ses collègues ont élu Paul président.*
‘His colleagues elected Paul president.’ (Clairis et al. 2005: 29)

Korean (Korean)
Attribution of a quality to the subject (passive voice):
(69.)  

*pol* -i  
*banzaŋ* -i-ro  
Paul-AGENT  
class.delegate-PREDICATE  
*pop* -hi  
-eAt -da  
elect-PASSIVE  
PAST-DECLARATIVE
‘Paul is elected class delegate.’ (Koh 2005: 116)

---

Attribution of a quality to the object (active voice):

(70.) uri –ga pol –i (banzaŋ –ro)
1PL-AGENT Paul-OBJECT class.delegate-PREDICATE
pop – at –da elect-PAST -DECLARATIVE
‘We elected Paul (class delegate).’ (Koh 2005: 116)

Nahuatl (Uto-Aztecan)
Attribution of a quality to the subject (reflexive construction)

(71.) Ti–piltōntli ti–mo chihua–z
2SG-child P2(SUBJ)-P2(OBJ) to.make
‘You will transform yourself into a child.’ (Launey 1994: 112)

Attribution of a quality to the object (active voice)

(72.) Ti–pochōtl t–āhuēhuētl
2SG-kapok 2SG-cypress
mitz–mo–chihui–lia in totēucyo
to.make.you NPRED the Lord
‘The Lord transforms you into a silk-cotton tree, a cypress
(= a protector).’ (Launey 1994: 112)

Spanish (Indo-European)
Connective use

(73.) Yo las encuentro muy tristes. ‘I find them very sad.’

Nuclear use

(74.) Lo encuentro cada día. ‘I meet him every day.’

Adpositions
Quite often non-connective verbs require an adposition when used in connective constructions. It is important to distinguish between comparative sentences and attributive sentences, as the same adposition may be used in both cases. Relative constraints should also be taken into consideration, e.g. the use of a definite article. In the following example, the definite article can only be used in the comparative structure:

French (Indo-European)

(75.) Louis travaille comme enseignant.
‘Louis works as a teacher.’

**MANUSCRIPT AUTEUR**

(76.) *Louis travaille comme un enseignant.*

‘Louis works like a teacher.’ (in the same way)

In some cases, both constructions (with or without the adposition) are possible with no change in meaning:

Breton (Indo-European)

(77.) *he zo wet labur*  
3SGF AUX go.PRF work  
*ba n ger giy matas bein*  
in INDEF farm as servant small  
‘She went to work in a farm as a maidservant.’  
(Avezard & Costaouec 2005: 101)

The equivalent sentence is also possible without an adposition:

Breton (Indo-European)

(78.) *he zo wet matas bein ba ker*  
3SGF AUX go.PRF servant small in farm  
‘She went as a maidservant in a farm.’  
(Avezard & Costaouec 2005: 101)

Examples of non connective verbs which require an adposition:

Greek (Indo-European)

(79.) *δυλέψει ε’κι ως εργοδι’γος*  
worked.3SG there as site.foreman.NOM  
‘He worked there as site foreman.’  
(Babiniotis et Clairis 2005: 52)

6. **Constraints in the use of the various connective constructions**

The connective strategies presented above are most frequently used in parallel in a given language, though it is rare to find them all in a single language (in our sample 5/60). In general, one of the processes is the main strategy, used in temporally and pragmatically unmarked sentences. When the need for extra grammatical (aspectual, temporal, person), pragmatic (focus) or lexical information is involved, a second strategy is used. Strategies are also highly dependent on the type of predicate (definite vs. indefinite, stative predicate vs. noun) and on the clause type (negative, interrogative, affirmative, dependent clause).

---

Predicate types

Various constraints are found in the world’s languages depending on the types of predicates. Specific qualified units, such as personal pronouns and proper nouns, behave differently from generic units, such as indefinite nouns and plural nouns.

For example, in Pulaar direct connection is only possible with personal pronouns:

Pulaar (Gaawoore) (Niger-Congo)
(80.) o pullo
3SG Pular
‘He’s a Pular.’ (Sow 200378: 87)

Other types of qualified units require the connector yo:

Pulaar (Gaawoore) (Niger-Congo)
(81.) Aamadu yo Pullo
Amadou PRED Pular
‘Amadou is a Pular.’ (Sow 2003: 87)

In Nanafwe on the contrary, direct connection is impossible for personal pronouns and plural nouns (Bohoussou & Skopeteas 200579: 159).

Restrictions related to the person can also be found. For example, in Kamayura the copula is restricted to use with the first and second persons only:

Kamayura (Tupian)
(82.) paje ere-ko
Shaman 2SG-Copula
‘You are the shaman.’ (Seki 200080: 158)

Indeed, third person pronouns behave differently in a general manner: for example Stassen (1997) and Eriksen (2005)81 observe that there are no languages in which zero copula constructions are licensed for first person but not third person pronouns (Eriksen 2005: 27).

Definite and indefinite nouns as well as plural nouns also may behave differently and require different strategies: this is the case in Tseltal where definite nouns may take the non-verbal connector (also used as a focus marker) while indefinite nouns require direct connection. In Moroccan Arabic, whenever

a predicate is determined by a definite article for example, the presence of the article turns the qualifier into an apposition:

Moroccan Arabic (Afro-Asiatic, Chatar 200582: 64)

a) direct connection

(83.a) ḥmed muamélim
Ahmed teacher
‘Ahmed is a teacher.’

b) apposition

(83.b) ḥmed al muaméliorer
Ahmed DEF teacher
‘Ahmed, the teacher…’

However, in cases of topicalization, the predicate can be determined by the definite article:

(84.) ḥmed al mu麑lim
AHMED DEF teacher
‘It’s Ahmed the teacher.’

Moreover, in French, non connective verbs used with an adposition (comme) take on comparative meaning when a definite article determines the noun: *Il travaille comme un enseignant* ‘He works like a teacher’ vs. *Il travaille comme enseignant* ‘He works as (a) teacher’.

We should also mention that it is common for predicative adjectives to behave differently in a given language and have to be constrained in the connective strategies in which they can be involved. For example in Bijogo (Niger-Congo, Segerer 200283: 168), predicative adjectives are obligatorily linked to one sort of strategy: while -koto ‘old’, of verbal origin, can be directly connected, -ṭṭ ‘small’, requires the use of a copula -nam ‘be’.

TMA markers

One of the most well known constraints in connective constructions concerns the use of TMA markers. In many languages direct connection is favoured when temporal and aspectual stability is involved but is no longer possible with all or some TMA markers (in the present study 20 languages out of 60). As Eriksen (200584: 27), following Stassen (1997), observes if a language accepts a zero copula construction in the past it will also accept it in present.

Such is the case in Hungarian, where no TMA markers are allowed in direct connection:

---


Hungarian (Uralic)

(85.) Bará-t'aim mérnök-ök
friend-POSS1/PL engineer-PL
‘My friends are engineers.’ (Nyéki 198385: 54)

In Turkish on the other hand, the predicate (here an adjective) can receive a present or a past tense marker but for the future the connective verb ol- ‘to be/become’ is necessary:

Turkish (Altaic)

(86.) ev güzel-mış
house pretty-PAST.EVID
‘(It is said that) the house was pretty.’
(Divitcioglu-Chapelle 200586)

(87.) ev güzel ol-acak
house pretty be-FUT
‘The house will be pretty.’ (Divitcioglu-Chapelle 2005)

The “tensedness” criterion was first put in relation to the non-verbal predication by Stassen (1997). This observation was developed by Eriksen (2005)87 relating tensedness to the use of a copula. Eriksen points in his study that tensless languages generally don’t require a copula since in a tensless language a sentence doesn’t need to be about a point in time. On the contrary, in tensed languages, in which “all sentences must be assertions about a point in time” (Eriksen 2005: 63), a copula is usually required for adjectival and nominal predicates.

Clause types

It appears that connective strategies are frequently related to the type of clause: declarative, negative, or interrogative clause. For example, in Kryz (Nakh-Daghestanian) various connectors are specialized for each type of sentence: declarative -ya, interrogative –y(i)/-i, negative –da (Authier 200988).

---
85 Lajos Nyéki, 1988, Grammaire pratique du hongrois d’aujourd’hui, Gap, OPHRYS–POF.
86 Elif Divicioglu-Chapelle, 2005, Syntaxe connective en turc, Typologie de la syntaxe connective, p. 199-211.
In Thulung (Sino-Tibetan), the “copula” *tsha* borrowed from Nepali cannot be used in interrogative sentences following the restrictions also valid in Nepali (Lahaussois 2002:179).

Likewise, in Badaga (Pilot-Raichoor 1991:569-572) direct connection is the main strategy except for negated predicates which require a copula.

Eriksen (2005) observes that the so-called “tensed” languages use one negation marker while “tenseless” languages may or may not use a specific negator for nominal predicates. Indeed, in several languages, specific negators are used in connective constructions. Vesselinova (2007) also notes that negation can be expressed for some languages in the same way in declaratives, nominal sentences and existential sentences but it is common to observe that a specific negation is needed for each type of clause or for some of them.

For example, in Hayu (Sino-Tibetan), the negation marker varies according to the different uses of /no(t)/ ‘to be, to exist’: the nominal negation /maaŋ/ is used with the “copula”, while the verb negation /ma/ is used for the existential (Michailovsky 1988: 134-138).

7. Language types based on the combination of the connective constructions

Based on the combination of the connective strategies within a language we propose five types of languages:

**Type A**: Direct Connection (9 languages)

This type includes languages that use direct connection as an unique strategy. It usually occurs in “tensless languages”, including languages with a weak verb-noun opposition:

- Araki, Berber, Mwotlap, Palau, Sakalava (Malagasy), Sikuani, Tagalog, Uldeme, Yurakaré.

**Type B**: Direct Connection, Non-verbal connection possible (6 languages)

Type B includes languages that use direct connection as their main strategy but also that have the possibility to use a non-verbal connector as a secondary strategy:

- Arawak (Guyana), East Futunan, Nélémwa, Tsettal, Nanafwe, Martinique French Creole.

---


**MANUSCRIT AUTEUR**

**Type C**: Direct Connection, Verbal Connection under constraints (22 languages)

This language type includes the so-called “tensed languages” that may express a permanent quality through direct connection as long as it concerns an unmarked tense such as present or aorist. But, when further TMA precision is needed, those languages require a verb:

Kambera, Qawasqar, Tehuelche, Nengee, Badaga, Cree Montagnais, Isaka, Bijogo, Deuri, Classical Nahuatl, Hungarian, Ixcatec, Kalaalisut, Kamayura, Nashta, Purepecha, Russian, Tinumiisut, Turkish, Wambaya, Yuwaalaraay, Zapotec.

**Type D**: Verbal Connection, Direct Connection marginal or impossible (16 languages)

This category includes the languages that function mainly with verbal connection and may use direct connection in specific contexts such as exclamative sentences. Otherwise, direct connection is not possible:

Basque, Breton, Chechen, French, Georgian, Hayu, Japanese, Korean, Kryz, Modern Greek, Romani, Saami, Spanish, Thulung, Ubykh, Welsh.

**Type E**: All possible (7 languages)

For some languages a wide range of connective strategies is available and naturally each strategy responds to specific pragmatic needs (e.g. focus):

Mankon, Qiang, Gbanzili, Gula, Yemeni Arabic, Langi, Moroccan Arabic.

Languages with direct connection as a main strategy are the majority. Moreover, the most common type in our sample is Type C, for languages that use direct connection as an unmarked strategy but require a verb for extra TMA markers. The second most frequent strategy concerns the almost exclusive use of verbal connection, Type D.

8. **Conclusion**

Based on a sample of 60 languages belonging to a wide range of stocks, this study presents the various syntactic processes used crosslinguistically to express the attribution of a quality, identification and membership: direct connection, specialized non-verbal and non-specialized connectors, and full lexical verbs, both intransitive and transitive.

More than one of these strategies can be found in a given language. The choice of a strategy depends most frequently on the type of unit, clause type, use of TMA markers other than present or aorist, and the need to add pragmatic focus or an additional lexical argument.

Based on the uses of the three connective strategies five language types have been identified:
We believe it would be useful if future language descriptions were to include a chapter on connective constructions, which would examine all the means available in the language and the relevant constraints applying to them.

Abbreviations

1 first person; 2 second person; 3 third person; A1 1st person singular/ergative (Tseltal); ABS absolutive; ACC accomplished; ADJ adjective; AL addressee; AOR aorist; ART article; ASS assertive; B1 1st pers. sg. / absolutive (Tseltal); B3 3rd pers. sg. / absolutive (Tseltal); COP copula; D dual; DEF definite; DEM or DEM2 demonstrative or demonstrative type 2; DEIC deictic; DIST distal; EVID evidential; F feminine; FOC focalizer; FUT future; GEN genitive; IMP imperative; INDEF indefinite; INST instrumental; INT interrogative; M or MASC masculine; N neutral; NEG negation; NOM nominative case; NPRED non predicate marker; PART predicative particle; PL plural; PRD-ADJ predicate adjective; PRED or P or SP or SPEC.PRED predicate marker; PREFSUJ subject prefix; PRES present; PROG progressive; PROX proximal; PST or PAST past; PTCP participle.

Acknowledgements

This paper was presented in the 8th Conference of the Association for Linguistic Typology in Berkeley (2009) and benefited from the remarks of its participants. We gratefully acknowledge support for the preparation of this paper from the CNRS Federation of Typology and Linguistic Universals, directed by Stéphane Robert. We also wish to thank the colleagues who, when needed, kindly accepted to control the analyses concerning the languages they specialize in, even though we are responsible for any mistakes in this paper: I. Bril, G. Segerer, F. Jacquesson, A. François, C. Moysse, C. Pattin, V. de Colombel, A. Lahaussois and A. Fernandez-Garay.