10. Copularization

10.0. Introduction

Suppose that a language under certain conditions lacks a copula or is dissatisfied with the one it has. In such a case it will have to take recourse to alternative strategies in order to fulfil the potential functions of copulas, such as the coding of TMAP-distinctions. In this section I will look at these alternative strategies. Since each of these may be incorporated into systems of non-verbal predication through a process of grammaticalization, or, more precisely, a process of copularization, the survey given here may shed some light on the origin and development of copulas.

In this way, synchronic typological facts will be used to investigate diachronic processes (see Greenberg 1978; Croft 1990: chapter 8). The conclusions arrived at, though supported by diachronic material where possible, are necessarily of a speculative nature.

It should be noted beforehand that auxiliary uses of copulas are not dealt with here, but will be treated separately in chapter 11. Furthermore, in this chapter I am primarily interested in alternatives for copulas and not in alternatives for non-verbal predications. The latter have been studied in chapter 7. The difference is that, while the constructions discussed in chapter 7 are used as alternatives for non-predicable predication types, those discussed here are alternatives for predication types which are predicable. Compare in this respect the following examples:

Hixkaryana (Ge-Pano-Carib; Derbyshire 1979: 34)
(1)   *Rowtɨ   mokro.*
         1.SG.brother DEM
         'That is my brother.'
(2)   *Rowtɨ   me   naha   mosonɨ.*
         1.SG.brother ADVR   COP.3.SG.PRES DEM
         "This one is (there) being my brother."
         'This is my brother.'

Example (1) shows that the equative predication type is predicable in Hixkaryana, and is expressed by means of a zero-2 construction. TMAP distinctions cannot be expressed in this construction type. If there is a need to mark such distinctions the non-verbal predicate is adverbialized (see 10.1.2) and combined with the verb that is used as a verbal copula in localizing predications. This verb then carries the relevant TMAP-distinctions.

Thus, in Hixkaryana the equative predication type is predicable, and has been classified as such in chapter 6, but a localizing copula may be used in order to compensate for the lack of a copula within this predication type. It is this type of alternative that is studied in this chapter.

10.1. Positional verbs and localizing copulas

10.1.0. Introduction

In this section I will study two related phenomena. The first concerns the use of positional verbs as an alternative to the verbal copula used in localizing predications (10.1.1), the second the use of localizing copulas, i.e. verbal copulas restricted to localizing predications, as an alternative for the expression of predications other than localizing (10.1.2). I then go on to show that these two types of expression are related, and represent two stages on a path of copularization (10.1.3).

10.1.1. Positional verbs

For reasons that have been hinted at in 9.2.3 and will be further explored in 10.1.3, there are several languages in which localizing predications are partly predicable, partly non-predicable, and in which positional verbs are used in the alternative lexical predication type. These are the languages that showed up in 6.1.1 as partly contradicting the hierarchies describing the various degrees of predicability of ascriptive non-verbal predicates: Dutch, Ngalakan, and Ngiyambaa. Consider the following examples:

Dutch (Indo-Hittite)
(3)   **Jan is*   *op de bank.*
            Jan   COP.PRES.3.SG   on DEF sofa
            'Jan is on the sofa.'
(4)   *Jan   zit*   *op de   bank.*
            Jan   sit.PRES.3.SG   on DEF   sofa
            'Jan is sitting on the sofa.'
(5)   *Jan   is*   *in Frankrijk.*
            Jan   COP.PRES.3.SG   in France
            'Jan is in France.'
(6)   *Jan   zit*   *in Frankrijk.*
            Jan   sit.PRES.3.SG   in France
            'Jan is in France.'

The general tendency in Dutch seems to be that, in those cases in which the location itself is an object (e.g. a sofa) rather than a certain amount of space (e.g. France), positional rather than verbal copulas are used. Apart from specifying a posture, these verbs carry the TMAP distinctions which in copula constructions would be carried by the copula. This latter function may be the primary one when the positional verb is used in sentences in which the location is an amount of space,

as in (6). In this example it is not implied that the subject is in a sitting position, and the positional verb has a copula-like status.

Many languages have a separate verbal copula which is used in localizing predications only. This situation obtains in about half of the sample languages, as Table 43 in chapter 9 shows. For seven of these, there are explicit indications in the grammars that the verbal copula used in localizing predications may also be found as a lexical verb meaning 'stay', 'live', or 'sit', or that it is etymologically related to such a verb. The latter situation obtains in Pipil, where the localizing copula *nemi* is etymologically related to Classical Nahuatl *nemi* 'live' (Campbell 1985: 365); the former in Gilyak, where the localizing copula *pi* can also be used to mean 'live', as in the following examples:

Gilyak (Isolate; Nakanome 1927: 31, 21)
(7)   *Tyo   tyax   mi   pî-nt.*
            fish   water LOC COP-FIN
            'The fish are in the water.'
(8)   *Cin   ršas   pî-nt.*
            2.PL   where live-FIN
            'Where do you live?'

These facts indicate that positional verbs may develop into localizing copulas in the course of time.

It is not surprising that it is precisely locative phrases that are found in combination with lexical verbs. Of the elements constituting the various types of non-verbal predicate discussed in chapter 5 only locative phrases readily admit argument status: in their distinguishing use locative phrases are sentence-level rather than term-level constituents. In this respect they differ from terms used in referential predicates, which, since they lack a semantic function, cannot be used directly in the construction of predications.

Furthermore, as stated in 5.1.3.1, in predications based on positional verbs and in those based on locative predicates the same kind of semantic relation is expressed. Consider again the following representations:

(9) $(f_i: (x_i: London (x_i)_\emptyset)_{Loc} (f_i)) (x_j: Sheila (x_j)_\emptyset)_\emptyset$
            'Sheila is in London.'
(10) $(f_i: live_V (f_i)) (x_j: Sheila (x_j)_\emptyset)_\emptyset (x_i: London (x_i)_\emptyset)_{Loc}$
            'Sheila lives in London.'

In both (9) and (10) there is a locative relation between the two participants, as signalled by the semantic functions *Loc* and $\emptyset$. In (9) it is simply affirmed that this relation obtains, in (10) the nature of the relation is further specified by means of a lexical verb. Given the basic similarity between the two construction types, the

development of positional verbs into verbal copulas seems understandable, particularly in those circumstances in which the use of a verbal copula is avoided in localizing predications, and positional verbs are primarily used to provide a means of encoding TMAP-distinctions.

10.1.2. Localizing copulas

Since the elements constituting non-localizing ascriptive predicates (adjectives, nouns, and possessive phrases) and referential predicates (terms, predications, propositions, and clauses, all without a semantic function) cannot be construed directly with a lexical verb, other measures have to be taken if the lack of a copula has to be compensated for or an existing copula has to be replaced. One of these is discussed in this section, and is illustrated in the following examples:

Tamil (Elamo-Dravidian; Asher 1982: 49)
(11)   *Avaru   daktar.*
          3.SG.M   doctor
          'He is a doctor.'
(12)   *Avaru   distrikt   inspektar-aa   iruntaara.*
          3.SG.M   district   inspector-ADVR   COP.PAST.3.SG.H
          "He was (there) being a district inspector."
          'He was a district inspector.'

Example (11) shows that equative predications are predicable in Tamil. This language does not permit the expression of TMAP distinctions on non-verbal predicates, nor does it have a predicativizing copula that can be used in equative predications. Verbal tenses are expressed by means of the verbal copula that is used in localizing predications, as in (12), the result being a localizing predication in which the location itself is left unspecified, and in which the referential predicate is adverbialized by means of suffixation of the adverbializer *-aa*, i.e. gets the treatment which is characteristic for predicative adjuncts.

Constructions with an adverbialized predicate are found in Abkhaz, Basque, Hixkaryana, Tamil, and, outside the sample, in Kpelle (Welmers 1971, 1973) and Modern Standard Arabic (Moutaouakil 1986). The localizing nature of the predications in which these adverbial constituents occur is corroborated by the fact that in all languages employing this alternative expression format, the auxiliary verb is also the verb used in localizing predications.

Examples from Hixkaryana have been given in 10.0. The following examples are from Abkhaz, which has two different options with respect to the adverbialization of the non-verbal predicate:

Abkhaz (Caucasian; Hewitt 1979: 46)
(13)   *Wəy   rc'ay°ə̀-s   də̀-q'o-ɵ-w-p'.*
          DEM   teacher-ADVR   3.SG.SBJ-EX.PREV-COP-PRES-DECL
          "That one is (there) as a teacher."
          'He is a teacher.'
(14)   *Wəy   də-rc'ay°-nə̀*
          DEM   3.SG.SBJ-teacher-ADVR
                də̀-q'o-ɵ-w-p'.
                3.SG.SBJ-EX.PREV-COP-PRES-DECL
          "That one is (there) being a teacher."
          'He is a teacher'

The adverbial status of the non-verbal constituent is not only signalled by the presence of adverbial affixes, it is also reflected in the fact that in several of the languages dealt with here the adverbial constituent has been found to be optional, i.e. in these languages the localizing predication may occur without an overt locative predicate, as in the following examples:

Tamil (Elamo-Dravidian; Asher 1982: 52)
(15)   *Kannan   iru-kkar-aar-aa.*
          Kannan   COP-PRES-3.SG.HON-INT
          'Is Kannan in?'

Abkhaz (Caucasian; Spruit 1986: 28)
(16)   *Də́-q'a-ɵ-w-p'.*
          3.SG.SBJ-EX.PREV-COP-PRES-DECL
          'He exists.'

In constructions of the type discussed here the adverbial constituent may lose its adverbial nature and, consequently, the localizing copula, if present, develops into a copula of wider application. This change may be observed in Basque, where the two constructions occur side by side:

Basque (Isolate; Saltarelli 1988: 63)
(17)   *Gu   nekatu-ak   g-a-u-de.*
          1.PL.ABS   tired-PL.ABS   1.PL.ABS-PRES-COP-ABS.PL
          'We are tired.'
(18)   *Gu   nekatu-ta   g-a-u-de.*
          1.PL.ABS   tired-ADVR   1.PL.ABS-PRES-COP-ABS.PL
          "We are (there) being tired"
          'We are tired.'

In Basque the verb *egon* 'be, exist, reside', which as a copula is normally used with locative predicates only, is sometimes combined with an adjectival predicate, as in (17). Saltarelli (1988: 63) notes, however, that "... these sentences are usually questionable, the common alternative being to treat *nekatu* 'tired' as a derived adverb bearing the adverbializer *-ta* ...". The latter situation is illustrated in (18).

A similar phenomenon may be observed in Arabic. The situation in Modern Standard Arabic is as illustrated in the following examples:

Modern Standard Arabic (Semitic; Moutaouakil 1986: 17, 18)
(19)   *Hind-un*   *ḍakiyyat-un.*
       Hind-NOM   intelligent-NOM
       'Hind is intelligent.'
(20)   *Kānat*   *Hind-un*   *ḍakiyyat-an.*
       COP.PAST Hind-NOM   intelligent-ACC
       'Hind was intelligent.'

In the present tense a copula is not required in Modern Standard Arabic, and the predicate takes a nominative ending. In other tenses a copula is used, and the notional predicate takes an accusative ending, which may signal, among other things, adverbial function. Modern Standard Arabic thus presents a system that is comparable to that illustrated for Abkhaz, Hixkaryana, and Tamil above.

The situation is different in Egyptian Arabaic, as well as in other Arabic dialects. Consider the following examples:

Egyptian Arabic (Semitic; Olmsted Gary—Gamal-Eldin 1982: 23)
(21)   *Hijja*   *mudarris-a.*
       3.SG.F   teacher-SG.F
       'She is a teacher.'
(22)   *Hijja*   *kaanit*   *mudarris-a.*
       3.SG.F   COP.PAST   teacher-SG.F
       'She was a teacher.'

The form of the predicate *taaliba* 'student' in (21) and (22) is not affected by presence of the verbal copula, which may be interpreted as a signal that this verb is no longer restricted to locative contexts, but has acquired a more general copular status.

The construction in which the localizing copula is accompanied by an adverbial can be analyzed as a localizing predication in which a secondary predication based on a non-verbal predicate is embedded. This type of construction may be represented and paraphrased as in (23). Given the fact that the main function of the primary predication is to modify the secondary predication indirectly for TMA-categories, the secondary predication may be said to contain the primary

information. The development of the construction into one in which the secondary predication becomes primary, as represented in (23)-(24), does justice to this situation.

(23) $(\pi_2 e_1\colon [(f_1\colon (x_1)_{Loc}\, (f_1))\, (x_2)_\varnothing]\, (e_1)\colon [(f_2\colon pred_A\, (f_2))\, (x_2)_\varnothing]\, (e_1))$
       'x_2 is (there) having the property expressed by $Pred_A$.'
(24) $(\pi_2 e_1\colon [(f_2\colon pred_A\, (f_2))\, (x_2)_\varnothing]\, (e_1))$
       'x_2 has the property expressed by $pred_A$.'

Thus, the expression of the π_2 operators, which first required the intervention of an intermediate predication, is in a later stage taken care of within the non-verbal predication itself.

10.1.3. Synthesis

10.1.3.0. Introduction. The two alternative strategies discussed above are interrelated, in the sense that they represent two stages in a proces of copularization. In order to show this, within the group of languages making use of the two alternative strategies a distinction has to be made between specialized and rigid languages.

10.1.3.1. Specialized languages. Starting with specialized languages, it is to be noted that the three languages discussed in 10.1.1, Dutch, Ngalakan, and Ngiyambaa, in which positional verbs take over part of the job of a verbal copula, are all of this type. These languages have two further properties in common: (i) they show a high degree of predicability, which is reflected in the fact that they all allow the predicative use of possessive predicates in non-presentative predications; (ii) they have a single verbal copula, which is used in all major non-verbal predication types. Apparently, languages having these two properties are under pressure to innovate their copular system.

This pressure seems to be active or to have been active in four other languages in the sample as well. In these, localizing predications receive a separate treatment, not in the sense that positional verbs are used in their expression, but in the sense that a different copula is used for their expression: Chukchee, Jamaican Creole, Nahali, and Sumerian (see 9.1.5). Again, these languages are all of the specialized type and have a high degree of predicability.

In 9.2.3 I suggested that specialized languages occupy an intermediate place in between rigid and flexible languages: in rigid languages equative and localizing predications are strictly kept apart; in flexible languages they are treated on a par; in specialized languages there are many different expression patterns, some of which enable the language to keep equative and localizing predications apart,

whereas there are others in which these two predication types are expressed by means of the same expression format. It is precisely in the latter group that the introduction of a new localizing expression format is observed. All this may be interpreted as a sign that specialized languages are not flexible enough to keep up a system that would be more typical of flexible languages,[1] even more so, since in most of the specialized languages discussed here there is no absolute need to use an alternative strategy, in the sense that in these languages there is a regular verbal copula on which TMAP-distinctions can be expressed. The introduction of a new expression format is apparently brought about purely by the need to create an opposition between localizing and equative predications.

This general tendency observable in specialized languages with a high degree of predicability sheds new light on the counterexamples that have cropped up against generalizations made in previous chapters. These were the following:

(i) In 6.1.1.1 Dutch, Ngalakan, and Ngiyambaa were shown to partly contradict the claim that localizing predications are the most easily predicable within the set of ascriptive predications. In these languages the use of positional verbs is obligatory in some localizing predications.
(ii) In 8.2.2.2 Chukchee was shown to be a counterexample against the claim that the zero-2 strategy is most likely to be used in the most easily predicable predication types. In this language a special copula is used in localizing predications only.

These four counterexamples against different claims made in earlier chapters all concern specialized languages with a high degree of predicability, in the sense that in all four languages non-presentative possessive predications are predicable. Furthermore, in all these languages the remaining predication types are all expressed by means of a single expression format. These counterexamples may now be explained as a result of the fact that the languages concerned have given in to the pressure to create an opposition between localizing and equative predications, the result being a system of non-verbal predication not predicted by the generalizations made earlier.

That there are not even more counterexamples is a result of the fact that in specialized languages predications based on adjectival predicates are predicable. As mentioned in 9.3, the predicability of adjectival predications opens up a potential 'bridge' from the localizing to the equative domain. The examples from Basque and Modern Standard Arabic given above show how this bridge is crossed: adjectival

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1. Pountain (1985: 353), for instance, notes with respect to the development of the new, originally locative, copula *estar* in Spanish that the "functional load" of its predecessor had become too heavy.

predicates come to be used as predicative adjuncts in localizing predications. Possibly the lexical origin of the localizing copula used in this predication type makes it possible to use the adjectival predicate in this way. A reinterpretation of the predicative adjunct as the main predicate of the construction then goes hand in hand with a reinterpretation of the localizing copula as a copula of wider application. Once this step has been taken, the copula used with adjectival predicates may acquire further copular functions.

It may be useful to have a somewhat closer look at this process by studying some languages with a reasonably well-documented history, in which an originally positional verb has penetrated into the domain of non-verbal predication in different degrees: the Ibero-Romance languages, and the creole language Sranan. Together these languages may show the path along which an originally positional verb goes through the system of non-verbal predication.

In Hengeveld (1991: 87-90) I argue that the Latin positional verb *stare* 'stand' has entered the systems of non-verbal predication of the Ibero-Romance languages following the path indicated in (25):

(25) $(x_i)_{Loc}$ -->   A   -->   N   --> $(x_i)_{Poss}$

This path will be recognized as coinciding with the predicate hierarchy defined in 6.1.1.

Due to differences in the temporalization of the incorporation of *stare* 'stand' into their systems of non-verbal predication, the Ibero-Romance languages nicely illustrate the different stages defined by (25), as shown in Table 45.

Table 45. Stare in the Ibero-Romance languages

Language	$(x_i)_{Loc}$	A	N	$(x_i)_{Poss}$
Judeo-spanish	+	-	-	-
Catalan	+	+	-	-
Spanish	+	+	-	-
Galician	+	+	-	-
Portuguese	+	+	+	-

Table 45 shows that the originally positional verb was used with locative predicates before it came to be used with adjectival and nominal predicates. This may be interpreted as a sign that the development of a positional verb into a localizing

copula, as described in 10.1.1, is a precondition for the further development of that localizing copula into a copula of wider application, as described in 10.1.2. This is perfectly understandable, since as long as a positional verb retains some of its lexical traits, there is no room for an adverbialized adjunct to become reinterpreted as an adjectival main predicate.

In 6.1.1.3 the existence of the predicate hierarchy reflected in (25) was argued to be interpretable in terms of the concept of time-stability, which suggests that the particular development sketched in (25) and illustrated in Table 45 is related to this concept. This idea is reinforced by the fact that in the Ibero-Romance languages, in those cases in which there is an opposition between the innovative copula related to Latin *stare* 'stand' and the original copula, the former is used for the ascription of properties of limited duration, and the latter for the ascription of inherent properties.

All this may be an indication that the pressure to which specialized languages using a single expression format for equative and localizing predications are subjected is in fact a pressure to distinguish between little time-stable and highly time-stable concepts. As the localizing predication type represents the lowest degree of time-stability, one of the options to create such a distinction is to start a process of innovation there, as represented in (26):

$$(26) \qquad V \quad \rightarrow \quad (x_i)_{Loc} \quad > \quad A \quad > \quad N \quad > \quad (x_i)_{Poss}$$

Two factors favour this particular scenario: (i) as to their time-stability, verbs are next on the scale to localizing predicates; (ii) as stated above, locative phrases are the only ones that can be used as an argument of a verb, i.e. as a predication level constituent.

A comparison of some creole languages lends further support to the development of copular systems hypothesized in (26). Holm (1978: 267) notes that in Miskito Coast Creole "*de* is strictly locative", whereas "Rama Coast Creole speakers can use *de* in reference to states of health or traits of character or general conditions". Arends (1986: 119), in his analysis of the history of the equative copula in Sranan, shows that the originally localizing copula *de* can be used in a similar way, as shown in the following examples.

Sranan (Creole; Arends 1986: 119)
(27)   *A   bun.*
         3.SG   good
         'He/she is (morally) good.'
(28)   *A   de   bun.*
         3.SG   COP   good
         'He/she is (mentally/physically) well.'

He furthermore shows that the copula *de*, after it had come to be used with adjectival predicates, came to be used in equative predications as well. Interestingly, within this domain it is initially predominantly used in classifying, not in identifying predications. Arends (1986: 113) resorts to Givón's time-stability scale to explain this phenomenon: "While in the beginning the undifferentiated category of equation was expressed as a time-stable or, maybe, rather timeless phenomenon (...), later time-dependency or time instability was introduced as a new feature to distinguish time-dependent attribution from, essentially timeless, identification." An example of time-dependent attribution would be the following sentence, which lends itself for an interpretation of limited duration:

Sranan (Creole, Arends 1989: 63)
(29)   *Philip de   wan   takru suma.*
         Philip COP   INDEF   bad   person
         'Philip is a bad person.'

Combining the data from the Ibero-Romance languages with those from Sranan, the full scenario for the penetration of a positional verb into a system of non-verbal predication may be represented as in Figure 60.
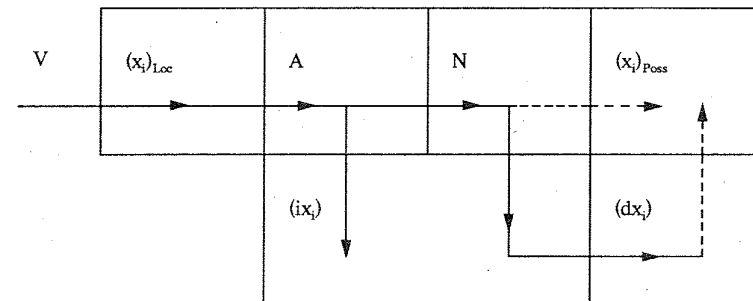

Figure 60. From positional verb to copula

It remains unclear how possessive predicates fit into this picture. Furthermore, for lack of data, presentative predications cannot be incorporated into Figure 60. But it is clear that the situation arrived at when an originally positional verb comes to be used in identifying predications is quite close to the All-alike pattern, which brings the language back to the situation it escaped from when introducing a new

copula. The great variety of expression patterns found in specialized languages with respect to their expression patterns signalled in 9.2.3 can now, rather speculatively, be related to the fact that several of these languages are engaged in the cycle represented in Figure 61.
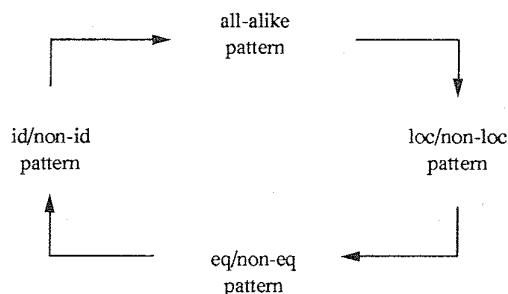

Figure 61. The development of expression patterns in specialized languages

When languages exhibiting an all-alike pattern acquire a new localizing copula, their expression pattern becomes a localizing versus non-localizing one; as soon as a localizing copula comes to be used with adjectival predicates, the expression pattern is of the equative/non-equative type; extension of the uses of this copula to classifying predications leads to the identifying versus non-identifying pattern; and this pattern, in its turn, is but one step away from the all-alike pattern.

10.1.3.2. Rigid languages. There are two sample languages of the rigid type using the construction type described in 10.1.2, in which a localizing copula is combined with an adverbialized predicate: Hixkaryana and Tamil. The conditions under which this alternative expression format is used in these languages are quite different from those obtaining in specialized languages. The most important difference is that in these two rigid languages, quite unlike the situation in specialized languages, the alternative expression format fills a need in the expression of TMAP-distinctions, as the examples given in 10.0 and 10.1.2 show. Both languages only use the zero-2 strategy in equative predications, hence within this set of predications there is no possibility to express TMA-distinctions. The application of the alternative strategy can thus be seen as filling the need to express the distinctions that otherwise would have to remain unexpressed.

As has been shown in 9.2.1, all rigid languages maintain a strict division between localizing and equative predications. The use of a localizing construction with

adverbial adjunct as an alternative expression for equative predications endangers rather than enhances this division of labour. Perhaps it is for this reason that this alternative strategy is used only in those cases in which there is a need to encode TMAP-distinctions. The fact that none of the rigid languages in the sample uses the same expression format for localizing and equative predications may now be interpreted in one of two ways: (i) either the further copularization of a localizing copula does not take place in rigid languages or (ii) further copularization of a localizing copula only takes place when at the same time a new localizing copula is introduced. In each case the fundamental opposition between equation and localization is maintained. The synchronic data do not allow for any conclusions on this point.

10.1.3.3. Summary. The development of a positional verb into a localizing copula and the use of a localizing copula with an adverbial adjunct as an alternative expression format have a different status in specialized and rigid languages.

In specialized languages the introduction of a positional verb in localizing predications is induced by the need to create an opposition between localizing and equative predications, even though there is no absolute need for an alternative expression format as regards the expression of TMAP-distinctions. This introduction is then followed by further copularization of the originally positional verb.

In rigid languages the localizing copula with adverbial adjunct is used only when there is the absolute need for an alternative expression format as regards the expression of TMAP-distinctions, even though this endangers the opposition between equative and localizing predications basic to these languages. There are no clear signs that the use of this alternative strategy is followed by a process of copularization.

10.2. Pronouns

At several places in chapter 8 attention was paid to the use of pronominal copulas, i.e. copulas which go back to original pronouns. Li—Thompson (1977) argue that this type of copula originates in an anaphoric pronoun used in a topic-comment construction, by which they mean a construction that in the terminology of Functional Grammar would be called a theme-clause construction (see 1.6), and illustrate this by tracing the history of the pronominal copula *shi* in Mandarin Chinese. Similar points are made for Hebrew in Junger (1981).

The three fundamental stages in the development of pronominal copulas distinguished and illustrated with a wealth of examples by Li—Thompson (1977) may be illustrated by means of the pseudo-English examples given in (30)-(32), each meant as expressing the meaning 'Charles is my best friend':

(30)   *Charles my best friend.*
(31)   *Charles, that my best friend.*
(32)   *Charles that my best friend.*

In (30) two term phrases are juxtaposed without the intervention of a copula. In (31) the former term phrase occurs as a theme, which precedes a clause in which it is resumed by an anaphoric pronoun. In (32) the intonation break characteristic of theme-clause constructions has disappeared and the pronominal element functions as a copula. In Mandarin Chinese this pronominal copula originates in a demonstrative, but, as illustrated in 8.1.2.2, a personal pronoun may be the source of a pronominal copula as well.

Examples from Chinese illustrating the development sketched in (30)-(32) are given in (33)-(35):

Chinese (Sino-Tibetan; Li—Thompson 1977: 421, 424, 426)
(33)   *Wáng-Tái   wù   zhě   yě.*
         Wang-Tai   outstanding   person   DECL
         'Wang Tai is an outstanding person.'
(34)   *Jì   yù   qí   shēng you   yù   qí   sǐ,*
         already   wish   3.SG   live   also   wish   3.SG   die,
              shì   huò   yě.
              DEM   indecision   DECL
         'Wishing him to live while wishing him to die, that is indecision.'
(35)   *Yù   shì   suǒ   jià   fū-rén   zhǐ   fù   yě.*
         1.SG   COP   NR   marry   woman   GEN   father DECL
         'I am the father of the married woman.'

Sentences (33)-(34) occurred side by side around the 5th century B.C.. The use of *shì* illustrated in (35) was fully productive around the 1st-2nd century A.D.

The most crucial step in this development is that in which the anaphoric pronoun comes to be interpreted as a copula. This step goes hand in hand with a reinterpretation of the theme-clause construction as a subject-predicate construction (Li—Thompson 1977: 420). That sentences of the type illustrated in (32) can no longer be considered theme-clause constructions does not only manifest itself in the absence of an intonation break, but in syntactic differences as well. Thus, in Hebrew (Berman—Grosu 1976, discussed in Li—Thompson 1977: 429) themes can not be indefinite, but the subject in sentences like (32) can.

In 8.3.4 I argued that one of the primary functions of pronominal copulas is to disambiguate between a term and a predication reading, since two juxtaposed terms are easily interpreted as being in an appositive relation. This also explains why a pronominal copula is most often found in identifying predications. Both terms of an apposition are usually either both definite or both indefinite. Since subjects are

usually definite, the need to disambiguate occurs most often in the equative predication type containing two definite terms, i.e the identifying type.

In the sample there are two languages in which a pronominal copula is used in identifying predications only: Egyptian Arabic and Lango. In Mandarin Chinese, Hausa, and West Greenlandic it is used in both identifying and classifying predications. Outside the sample Hebrew makes further use of its pronominal copulas in predications based on bare adjectival and perhaps also nominal predicates. This suggests a path of development as represented in (36) and illustrated in Table 46.

(36)   Pro   → (dx_i) > (ix_i) >   A/N

Table 46. Distribution of pronominal copulas—some illustrations

Language	(dx_i)	(ix_i)	A/N
Lango	+	-	-
Mandarin Chinese	+	+	-
Hebrew	+	+	+

This path of development exactly mirrors part of the path that was sketched for originally positional verbs, as the combined representation in Figure 62 shows. Again, the position of possessive predicates remains unclear. The important point is that pronominal copulas may enter the domain of ascriptive predications.

Given the opposite direction of the two paths of development, one may ask what happens if the two processes meet. An interesting answer to this question can be found in Shields (1978), who, following Benveniste (1966), argues that the Indo-European verbal root *es-, the reflections of which may be found in the paradigms of verbal copulas in many indo-european languages, particularly in the third person singular, present tense, goes back to a pronominal form. This pronominal form, then, has been incorporated into a verbal paradigm that goes back itself to several positional verbs (Lehmann 1982a: 27). Thus, the two processes have met and fused to create a single verbal paradigm. As a result, both the originally positional verb

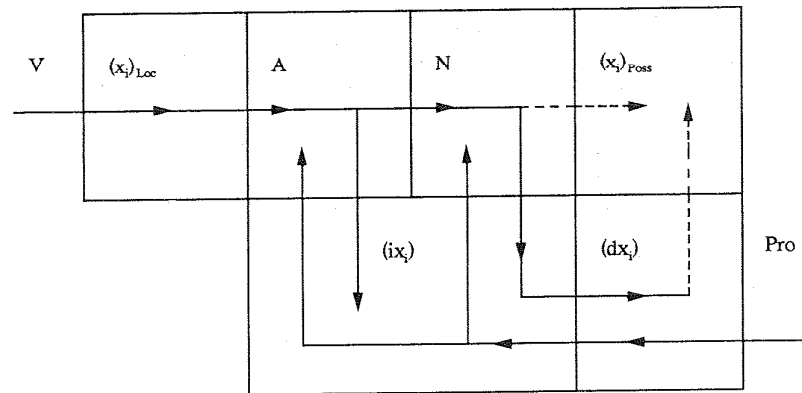and the original pronoun have come to be used in the full set of predicable predication types.[2]

Figure 62. From positional verb and pronoun to copula

The acquisition of verbal characteristics by pronominal copulas is not unattested. It may be observed in Mandarin Chinese as well, where the copula *shi*, which is normally optional, occurs with the verbal negator *bu*, and is then obligatorily present. In Egyptian Arabic a comparable phenomenon may be observed. Here the pronominal copula, fused with a negative element, serves as the negator of all types of non-verbal predication.

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2. This example shows that the two processes of copularization discussed in this and the preceding section may be operative within one and the same language. It might well be that Jamaican Creole is a language in which this development may be observed. Figure 53 in 9.1.5 seems to suggest that the zero-1 strategy, which is used in this language with adjectival and some localizing predicates, is squeezed in between two copulas coming from two opposite directions: one from the localizing, the other from the equative domain.

10.3. Semi-copulas

There are two languages in the sample in which a verbal semi-copula with inchoative meaning has taken on copular function in some tenses: Ngalakan and Turkish. Compare the following examples from Ngalakan:

Ngalakan (Gunwinyguan; Merlan 1983: 57-58)
(37)   ø-ŋolko-ø.
         3.SG-big-PRES
         'He is big.'
(38)   ø-ŋolko-men-ø.
         3.SG-big-become-PRES
         'He is getting big.'
(39)   ø-ŋolko-meñ.
         3.SG-big-become.PAST.PF
         'He got big.'
(40)   ø-ŋolko-men-iñ.
         3.SG-big-COP-PAST.IMPF
         'He was big.'

In the morphologically unmarked present tense Ngalakan does not require a copula, as in (37). If in that tense the verbalizing suffix *-men* is used it has inchoative meaning, as in (38). In the perfective past it may be used with the same meaning, as in (39). But in the imperfective past it is used as a simple carrier of TMAP-distinctions, as in (40), and it can be used in this way, since in this tense inchoative meaning would be incompatible with imperfectivity.

In the future tense both the inchoative and non-inchoative readings are possible, as in (41). The prefix *gu-* which appears in this example is required with certain tenses and is difficult to analyze (see Merlan 1983: 107):

Ngalakan (Gunwinyguan; Merlan 1983: 109)
(41)   Gu-ø-noṇʔnoṇʔ-men-a.
         gu-3.SG-small-become/COP-FUT
         'It will become small.'/'It will be small.'

Note that the statement that something will *be* small in the future generally involves the *becoming* small of that same item at some point posterior to the moment of speaking, so that the opposition is not as clearly present as in other tenses.

All in all, one might say that the semi-copula meaning 'become' in Ngalakan supplies a way to realize a predicativizing strategy in past and future, i.e. in those tenses in which TMAP-distinctions cannot be expressed otherwise, and thus fills the gap caused by the absence of a predicativizing strategy in this language.

In a similar way the verb *olmak* 'be, become, happen, mature' in Turkish supplements the zero-1 strategy used in this language. Lewis (1967: 141-142) shows that, if the verb *olmak* is used in one of the tenses that can be expressed by means of a zero-1 strategy, it has the meaning 'become'. If it is used in any of the tenses in which a zero-1 strategy is disallowed, it means either 'become' or 'be'. Thus, the verb *olmak* neatly "supplements the deficiencies" (Lewis (1967: 141) of the zero-1 strategy.

In both languages the alternative predicativizing strategy is used in all major predication types. Thus, unlike the strategies discussed in 10.1 and 10.2, the application of this strategy is dependent upon tense rather than on predication type.

10.4. Existential verbs

Munro (1977) discusses constructions of the type illustrated in (42), which can be found in all the Yuman languages:

Mojave (Northern Amerind; Munro 1977: 445)
(42)   *John   k^{w}aθ?ide:-č   ø-ido-pč.*
           John   doctor-SBJ   3.SG-COP-PF
           'John is a doctor.'

The analysis of these sentences is problematic: the subject of (42) is *John*, not *k^{w}aθ?ide:* 'doctor', yet it is the latter that is marked for subject function. Not only is this in conflict with the semantics of (42), it also goes against the constraint that subjects occupy the first position in the clause in Mojave.

The solution Munro (1977: 450) proposes is that the subject of (42) is not *k^{w}aθ?ide:* 'doctor', but *John k^{w}aθ?ide:* 'John (is) doctor', i.e. a predication embedded by the verb *ido*, which should then be interpreted as having existential meaning. The paraphrase of (42) should therefore be that given in (43):

(43)   *There is [John (is) doctor].*

As this paraphrase indicates, the actual non-verbal predication is the subject of an existential verb in a *reality construction*, i.e. an existential construction with a second order argument (see 5.2.3). The embedded non-verbal predication is verbless, the relevant TMA-distinctions being carried by the higher existential verb.

Munro presents many pieces of evidence for this analysis, one of which is particularly relevant in the present context. In certain Yuman languages sentences of the types illustrated in (42) occur side by side with verbless sentences, as illustrated in (44)-(45):

Havasupai (Northern Amerind; Munro 1977: 457, 447)
(44)   *Nʸunʸu   muso.*
           DEM   cat
           'That is a cat.'
(45)   *Qəsaq   ?čaa-v-č-yu.*
           crow   bird-DEM-SUBJ-COP
           'A crow is a bird.'

The fact that these sentences exist side by side may be interpreted as a sign that the existential verb is used to supply a means for encoding TMA-distinctions in circumstances that do not allow these to be expressed by other means.

Under the analysis given in (43) the subject of the main clause is the embedded non-verbal predication, and the existential verb may be expected to show agreement with this (inherently third person singular) subject. This expectation is borne out by examples like the following:

Mojave (Nortern Amerind; Munro 1977: 452, 453)
(46)   *Manʸ   ?inʸe-č   ø-ido-pč.*
           2.SG   1.SG-SBJ   3.SG-COP-PF
           'You're me.'
(47)   *?inʸep   k^{w}aθ?ide:-č   ø-ido-pč.*
           1.SG   doctor-SBJ   3.SG-COP-PF
           'I'm a doctor.'

In these sentences the verb is inflected to agree with the embedded predication, not with the term phrase that carries the subject marking.

If the verb in sentences like (42) were a regular copula, it would show agreement with the subject of the (embedded) non-verbal predication, and indeed this type of subject marking is found as well. Thus, next to (47) one finds sentences like (48), in which the verb is marked to agree with the subject of what in (47) is an embedded predication.

Mojave (Nortern Amerind; Munro 1977: 452)
(48)   *?inʸep   k^{w}aθ?ide:-č   ?-ido-pč.*
           1.SG   doctor-SBJ   1.SG-COP-PF
           'I'm a doctor.'

The fact that (47) and (48) exist side by side may be taken as a sign of copularization of the existential verb used in a reality construction.

This type of copularization can be seen as a reinterpretation of the non-verbal predication as the main predication, i.e. a development from (49) to (50):

(49) $(\pi_2 \, e_i: [(f_i: (\emptyset)_{Loc} \, (f_i)) \, (e_j: [\text{non-verbal predication}] \, (e_j))_\emptyset] \, (e_i))$

(50) $(\pi_2 \, e_j: [\text{non-verbal predication}] \, (e_j))$

Again, as in the case of the localizing construction with predicative adjunct discussed in 10.1.2, the expression of π_2 operators, which first required the intervention of an intermediate predication, in a later stage is dealt with within the non-verbal predication itself.

In none of the sample languages this construction type has shown up in the form it has in Mojave. In several of these languages, however, a quite similar construction type is used with a negative existential verb to express sentence negation. This construction type will be discussed in 11.5.

10.5. Summary

In this chapter I have presented four different strategies that a language may use to innovate its copular system. This type of innovation may be motivated by different factors.

The primary one seems to be the need to find a means to express TMA(P) distinctions. Localizing verbs (10.1.2), semi-copulas (10.3), and existential verbs used in a reality construction (10.4) are used as substitutes in those circumstances in which a true predicativizing copula is lacking. The second motivating factor is the need to disambiguate. Pronouns (10.2) are primarily used in this function. Finally, the introduction of new expression formats may be induced by the need to create an opposition between localizing and equative predications. Positional verbs (10.1.1) serve this purpose, and pronominal copulas (10.2) may come to be used in a similar way.