6. Non-verbal predicability

6.0. Introduction

In the previous chapter I presented an extensive classification of non-verbal predications. Many languages, however, do not make use of all the predication types listed there. In other words, there is no perfect match between the ontological and the linguistic predicability (see 5.3) of the predication types involved. The aim of this chapter is to investigate to what extent the ontologically predicable non-verbal predication types defined so far are linguistically predicable within the systems of non-verbal predication of the languages of the sample.

Such a strict separation of ontological and linguistic predicability has not been made in earlier approaches to the general area studied here (Locker 1954; Lyons 1967, 1968; Clark 1978; Bickerton 1981; Wilson 1983). In these studies it was more or less taken for granted that constructions expressing locative, existential, etc. *meaning* can be viewed as locative, existential, etc. *constructions*. Bickerton (1981: 244-255), for instance, studies the lexicalization patterns of the four semantic relations represented in Figure 25.

Ownership	Location
Possession	Existence

Figure 25. Semantic space for four relationships

On the basis of Figure 25, Bickerton (1981: 245), partly making use of earlier work by Clark (1978), formulates the following constraint: "no language can use the same morpheme to express any two noncontiguous relationships (i.e., location and possession, or existence and ownership) unless that same morpheme is also used to express one of the intervening relationships (i.e., existence or ownership in the first case, location or possession in the second)".

Now consider examples (1)-(4) from Mandarin Chinese, which express the four relationships in Figure 25:

Mandarin Chinese (Sino-Tibetan; Li—Thompson 1981: 365, 511, 513)

(1) *Lisi zài hāi-biān.*
Lisi COP sea-side
'Lisi is at the coast.'

(2) *Chènsān (shì) wǒ-de.*
Shirt (COP) 1.SG-NR
"The shirt is my one."
'The shirt is mine.'

(3) *Yǒu yì-zhī gǒu zài yuànzi-lǐ.*
COP one-CLFR dog COP yard-in
'There's a dog in the yard.'

(4) *Tā yǒu sān-ge háizi.*
3.SG COP three-CLFR children
"As far as he/she is concerned, there are three children"
'He/she has three children.'

Examples (1) and (3), which illustrate Bickerton's relations of location and existence, show that Mandarin Chinese allows the predicative use of non-verbal locative predicates in both non-presentative and presentative predications. Examples (2) and (4), which illustrate Bickerton's relations of ownership and possession, show, on the other hand, that Mandarin does not allow the predicative use of non-verbal possessive predicates. As the literal translations show, the relation of ownership is expressed by means of an equative construction, whereas the relation of possession is expressed by means of an existential construction. Although Mandarin Chinese has constructions expressing possessive meaning, it does not have possessive constructions in the narrower sense of the word.

If the morphemes that are used in (1)-(4) are listed in Bickerton's diagram, as in Figure 26, it is clear that the data from Mandarin Chinese confirm Bickerton's claim.

shì	*zài*
you	*you*

Figure 26. Semantic space for four relationships in Mandarin Chinese

It is, however, hardly surprising that for existence and possession the same morpheme (*you*) is used, since Mandarin uses an existential construction, not a possessive one, for the expression of possessive meaning. Interesting questions that are not addressed in this approach are (i) why it is that Mandarin does not allow the predicative use of possessive predicates, (ii) why it uses the existential (EX) and equative (EQ) predication type to remedy the non-predicability of possessive predications.

These questions are addressed in this and the following chapters. In this chapter I will study the extent to which non-verbal predication types are predicable in the languages of the sample. After separating the predicable from the non-predicable predication types the following questions can then be addressed: (i) what alternatives do languages use for *non-predicable* non-verbal predication types; (ii) what grammatical means do languages use to express *predicable* non-verbal predication types? These questions are taken up in chapters 7 and 8, respectively.

Looking at the problem from the perspective outlined here, the availability and expression of non-verbal predication types in Mandarin may be represented as in Figure 27, rather than as in Figure 26.

EQ	*zài*
EX	*you*

Figure 27. The predicability of four predication types in Mandarin Chinese (EQ=Equative, EX=Existential)

Two predication types of the four represented in Figure 27 are predicable. The grammatical means Mandarin Chinese uses for the expression of these predication types, printed in italics, are part of the subject matter of chapter 8. Two other predication types are non-predicable. The alternatives that Mandarin uses for these predication types, the existential (EX) and equative (EQ) constructions, are part of the subject matter of chapter 7. The division between predicable and non-predicable predication types itself is studied in this chapter.

The extent to which non-verbal predication types are predicable in the languages of the sample can be described in a systematic way. Their degree of non-verbal predicability will be studied here from four different angles: predicate type (6.1), predication type (6.2), deixis (6.3), and quantification (6.4). For each of these categories a predicability hierarchy will be presented.[1]

1. In Hengeveld (1990b: 115-117) I suggest that the differences between arguments designating first, second, third, and fourth order entities may also trigger differences in predicability. Too few data are available for the sample languages to pursue this point here.

6.1. Predicability and predicate type

6.1.0. Introduction

The data concerning the predicability of non-verbal predication types in relation to the type of predicate on which they are based can be arranged in such a way that the result is a set of implicational predicate hierarchies. Since these hierarchies interact crucially with the predication hierarchy to be presented in 6.2, ascriptive and equative predications have to be studied separately. Ascriptive predications are studied in 6.1.1, equative ones in 6.1.2. Within the class of ascriptive predications a further subdivision between non-presentative and presentative ones is necessary.

6.1.1. Ascriptive predications

6.1.1.1. Non-presentative predications. Table 19 shows the data concerning the predicability of non-presentative ascriptive predication types. A selected subset of illustrative examples is given in Table 20. In these tables a + indicates that the predication type involved is predicable in a language, a - that it is not. A blank indicates that the relevant data could not be obtained.

In chapter 4 a classification of the parts-of-speech systems of the languages of the sample was given. Some consequences of the classification given there can be found in Table 19. The abbreviation 'irr'(elevant) in the column for adjectives indicates that the language concerned does not have a class of adjectives. A line connecting the columns for adjectives and nouns indicates that the language concerned combines these functions in a single class of predicates.

Tables 19 and 20 clearly show that if a language can use possessive predicates predicatively, it can also use nominal, adjectival, and locative predicates predicatively; if it can use nominal predicates predicatively, it can also use adjectival and locative predicates predicatively, etc. Thus, the data in Table 19 and 20 reflect a hierarchy that can be represented as in (5). This hierarchy should be read in the following way: if a predication type at a certain point in the hierarchy is predicable in a certain language, then all predication types preceding it in the hierarchy are also predicable in that language. This holds for all the languages in my sample for which my data are complete and is not contradicted by the languages for which my data are incomplete.

(5) Predicate hierarchy 1A:
Non-presentative ascriptive predications

1		2		3		4
$(x_i)_{Loc}$	>	A	>	N	>	$(x_i)_{Poss}$

Table 19. Predicability of non-presentative ascriptive predications

Language	$(x_i)_{Loc}$	A	N	$(x_i)_{Poss}$
!Xũ	+	-	-	-
Abkhaz	+	+	-	-
Arabic, Egyptian	+	+		-
Babungo	+	+/-	-	-
Bambara	+	+	-	-
Basque	+	+	+	-
Burushaski	+	----- + -----		+
Chinese, Mandarin	+	-	-	-
Chukchee	+	+		+
Dutch	+/-	+	+	+
Gilyak	+	irr		-
Guaraní	+	+		-
Hausa	+	irr	-	-
Hixkaryana	+	irr		-
Hungarian	+	+	-	-
Jamaican Creole	+	+	+	+
Ket	+	----- + -----		+
Krongo	+	irr		
Lango	+	+		-
Mam	+	+		
Miao	+	irr		-
Nahali	+	+		+
Nasioi	+	+		-
Navaho	+	irr		-
Ngalakan	+/-	+	+	+
Ngiyambaa	+/-	----- + -----		+
Pipil	+	+		-
Quechua, Imbabura	+	----- + -----		+
Sumerian	+	+		+
Tagálog	+	----- + -----		+
Tamil	+	-	-	-
Thai	+	irr		-
Turkish	+	----- + -----		+
Vietnamese	+	irr	-	-
West Greenlandic	+	irr	-	-
Yagaria	-	-	-	-
Yessan-Mayo	+	+	+	-

Table 20. Predicability of non-presentative ascriptive predications—some examples

Language	$(x_i)_{Loc}$	A	N	$(x_i)_{Poss}$
Yagaria	-	-	-	-
Tamil	+	-	-	-
Babungo	+	+/-	-	-
Hungarian	+	+	-	-
English	+	+	+/-	-
Basque	+	+	+	-
Dutch	+	+	+	+

The hierarchy in (5) seems to be partly contradicted by the fact that in some languages (Dutch, Ngalakan, and Ngiyambaa), the locative predication type is non-predicable under certain circumstances. In these cases a construction with a lexical positional verb (see 7.1.1) is used instead of the locative non-verbal predication type. In chapter 10 I will show that this is a result of the fact that positional verbs may come to be used as copular verbs in a process of grammaticalization, the first stage of which is reflected in their regular use in locative predications.

For many languages the data concerning the predicative use of bare nominal predicates could not be obtained. In most cases this is a result of the fact that in languages which do not make use of articles it is hardly possible to decide whether a noun in predicative position is the head of a term phrase or a bare nominal predicate. In the former case the construction would have to be analyzed as an equative predication, in the latter as an ascriptive one. Only in those cases in which a distinction between the two readings could be made on the basis of other formal means did I include that information in the table. Examples of the way the two predication types can be distinguished have been given in section 5.1.2.1.1.

Tables 19 and 20 not only show that languages can be arranged according to their degree of predicability in the domain of non-presentative predications, but also contain some illustrations of another feature of hierarchies: variation around the cut-off point. For a simple illustration of this kind of variation consider the English examples (6)-(7):

(6) *John is chairman.*
(7) **John is carpenter.*

In English a nominal predicate can be used predicatively only if the function it designates is unique, as in (6), but not if this function is non-unique, as in (7).

For another illustration of variation around the cut-off point consider the following examples:

Babungo (Niger-Congo Proper; Schaub 1985: 51, 256)

(8) *Yì-bí nyə̀ lùu yí-jə̂ə.*
CL-colanut this COP CL-good
'This colanut is good.'

(9) *Nú kə̂ lùu nú kwī.*
thing this COP thing important
"This thing is an important thing."
'This thing is important.'

In Babungo there are very few basic adjectives. Most adjectives are derived from verbs. Some of the basic adjectives, such as *jə̂ə* 'good' in (8), can be used predicatively, others, such as *kwī* 'important' in (9), can be used attributively only. In order to predicate the property 'important' of an object the adjective has to be applied to a repeated head noun in an equative predication.

The degree of predicability along the predicate hierarchy in the languages of the sample, as reflected in Tables 19 and 20, strongly correlates with the degree of flexibility or rigidity they exhibit in their parts-of-speech system: flexible languages show a high degree, rigid languages a low degree of predicability. This can be illustrated by means of Table 21, combining the data of Table 6, which lists the parts-of-speech systems of the languages of the sample, with the data presented in Table 19 above. Degrees of predicability are indicated by means of a number, which corresponds with the category highest on the predicate hierarchy found to be predicable in the language concerned. The values of these numbers are given in (5), which shows that a high value corresponds with a high degree of predicability, and the other way round. Thus, a 4 indicates that all non-presentative non-verbal predication types up to and including possessive ones are predicable in the language, a 1 that locative predications are the only predicable ones. It should be kept in mind that for many languages the predicability of predications based on bare nominal predicates could not be determined, so that a predicability of degree 2 might in some cases actually be of degree 3. The parts-of-speech (PoS) systems are identified in the same way as in 4.5.2. A low number corresponds with a high degree of flexibility within the parts-of-speech system, a high number with a high degree of rigidity.

Table 21. Predicability and parts-of-speech systems

Language	Predicability	PoS-system
Burushaski	4	2
Ngiyambaa	4	2
Quechua, Imbabura	4	2
Tagálog	4	2
Ket	4	2
Turkish	4	2-3
Dutch	4	3
Jamaican Creole	4	3
Chukchee	4	3-4
Nahali	4	4
Ngalakan	4	4
Sumerian	4	4
Basque	3	4
Yessan-Mayo	3	4
Lango	2	3-4
Abkhaz	2	4
Guaraní	2	4
Hungarian	2	4
Mam	2	4
Nasioi	2	4-5
Arabic, Egyptian	2	5
Bambara	2	5
Pipil	2	5
Babungo	1-2	5
Chinese, Mandarin	1	5-6
Tamil	1	5-6
!Xũ	1	6
Gilyak	1	6
Hausa	1	6
Hixkaryana	1	6
Krongo	1	6
Miao	1	6
Navaho	1	6
Thai	1	6
Vietnamese	1	6
West Greenlandic	1	6
Yagaria	0	5-6

The following correlations emerge from Table 21:

(i) All truly flexible languages (parts-of-speech systems 2, 2-3, and 3 in Table 21) allow all classes of predicate, up to and including possessive ones, to be used predicatively;

(ii) All rigid languages for which the class of manner adverbs is irrelevant or a small and closed one (parts-of-speech systems 5 and 5-6 in Table 6) do not allow the predicative use of possessive predicates, nor has the predicative use of bare nominal predicates been attested;

(iii) All rigid languages for which the adjective class is irrelevant or a small and closed one (type 5-6 and 6 in Table 6) do not allow the predicative use of nominal and possessive predicates. Those with a small and closed adjective class furthermore do not allow these adjectives to be used predicatively.

Thus, flexible languages not only show their flexibility in the extent to which non-verbal predicates can be put to different non-predicative uses, but also in the extent to which these predicates can be used predicatively. The more rigid a language is in its parts-of-speech system, the less permissive it is with respect to the predicative use of non-verbal predicates. Specialized languages, i.e. those with an open class of manner adverbs (parts-of-speech systems 3-4 and 4 in Table 21) occupy an intermediate position. Some group with types 2 and 3, whereas others group with types 4-5 and 5. To give some examples, Chukchee and Ngalakan allow the predicative use of possessive predicates, Guaraní and Hungarian do not. This mixed character of specialized languages will show up in later chapters as well.

6.1.1.2. Explanations. On the basis of the data presented above, the conclusion seems warranted that the predicate hierarchy that is operative within the domain of non-presentative ascriptive predications is firmly established. This raises the question of what motivates the existence of this hierarchy. In this section I will present two possible explanations.

In Hengeveld (1992b) I argue that an explanation can be discovered if one looks at the nature of the properties expressed by the non-verbal predicates studied here. These properties exhibit different shades of abstractness, as indicated in Figure 28. Roughly speaking, locative predicates designate spatial properties, most adjectival predicates physical properties, nominal predicates social properties, and possessive predicates properties that are dependent on legal or social conventions. In this sense the predicate hierarchy reflects different shades of abstractness, and as such is an instantiation of a more fundamental parameter. Note that the characterizations given here of the nature of the properties expressed by different types of predicate apply to their predicative use only. Thus, nouns may express all kinds of properties, but only nouns expressing social properties are used predicatively.

$(x_i)_{Loc}$	>	A	>	N	>	$(x_i)_{Poss}$
Spatial properties	>	Physical properties	>	Social properties	>	Conventional properties
Concrete	>		>		>	Abstract

Figure 28. Predicate hierarchy 1A and degrees of abstractness

Although the overall picture presented in Figure 28 seems to be rather coherent, the position of adjectives within it is problematic. Many members of the adjective class do indeed designate physical properties such as size, weight, and colour, but there are many others that designate rather abstract evaluative properties. There are no indications that in the languages of the sample these are treated differently as regards their degree of predicability, something one would expect if predicability were governed by abstractness alone. I therefore would like to consider another possibility, inspired by Stassen (1992), itself inspired by Givón (1984: 51-56).

Stassen (1992) studies the extent to which several types of non-verbal main predicate are expressed by means of the expression format that is used for intransitive verbal main predicates as well. Since the expression of non-verbal predication will be the subject of chapter 8, I will reserve a more elaborate account of Stassen (1992) for that chapter. Here it may suffice to mention that in order to account for his findings, Stassen formulates a time-stability scale that is a revised version of that formulated earlier by Givón (1984: 51-56).

In Givón's time-stability scale classes of predicates are ordered as to their stability over time; verbs generally denote properties or relations that are subject to rapid change, nouns those that are relatively stable over time, and adjectives form an intermediate class, as represented in (10):

(10) Givón's time-stability scale
Verbs ---------- Adjectives ---------- Nouns
rapid change intermediate states most time-stable

Stassen (1992) reformulates the scale so as to include (locative) adverbs,[2] with the result represented in (11).

2. Stassen intends this term to cover locative adverbials as well.

(11) Stassen's revised time-stability scale
Verbs --- Adverbs --- Adjectives --- Nouns

Note that this revised time-stability scale, unlike the original one, should be interpreted as applying to classes of predicates used predicatively.[3]

Whether the properties designated by locative adverbs are more time-stable than those designated by verbs is open to question, but that need not be of concern here. The relevant point is that the three categories of non-verbal predicate listed in (11) occupy positions on the scale with respect to each other that correspond exactly to their positions on predicate hierarchy 1A, as indicated in Figure 29.

Revised time-stability scale				
Verbs	Adverbs	Adjectives	Nouns	
	$(x_i)_{Loc}$	A	N	$(x_i)_{Poss}$
	Predicate hierarchy 1A			

Figure 29. Stassen's revised time-stability scale and predicate hierarchy 1A—version 1

A full parallellism between the revised time-stability scale and predicate hierarchy 1A would require the addition of verbs on the left hand side of predicate hierarchy 1A, and the inclusion of possessive phrases on the right hand side of the revised time-stability scale, as indicated in Figure 30.

The addition of verbs to predicate hierarchy 1A is unproblematic. Predications based on verbal predicates are, by definition, predicable. Their exclusively predicative use distinguishes them from other parts of speech (see 4.3).

It is less evident that possessive phrases would express properties that are more time-stable than those expressed by nouns. It should be kept in mind, however, that, as stated above, nouns used predicatively normally express social properties such as occupations, inclinations, and convictions, i.e. acquired rather than inherent properties. Furthermore, in many languages temporary possession is conceptualized as a locative rather than possessive relation, as illustrated in the following examples:

3. See Arends (1989) on the applicability of Givón's time-stability scale to the predicative use of predicate classes.

Hungarian (Uralic-Yukaghir; de Groot 1983: 101)

(12) *Péter-nél* *van* *a* *nyakkendő.*
Peter-LOC COP.PRES.3.SG. DEF tie
"The tie is at Peter."
'Peter has the tie with him.'

(13) **Péter-nél* *van* *a* *ház.*
Peter-LOC COP.PRES.3.SG. DEF house
"The house is at Peter."
'Peter has the house with him.'

Revised time-stability scale				
Verbs	Adverbs	Adjectives	Nouns	Possessive phrases
V	$(x_i)_{Loc}$	A	N	$(x_i)_{Poss}$
Predicate hierarchy 1A				

Figure 30. Stassen's revised time-stability scale and predicate hierarchy 1A—version 2

Given that nouns used predicatively often designate non-inherent properties and the predicative use of possessive phrases is often restricted to the expression of permanent possession, the position of possessive phrases within the re-revised time-stability scale seems acceptable. Summarizing, the correlation between predicate hierarchy 1A and time-stability may be represented as in Figure 31.

$(x_i)_{Loc}$ > A > N > $(x_i)_{Poss}$	
less time-stable	more time-stable

Figure 31. The re-revised time-stability scale

Further evidence for the relevance of the re-revised time-stability scale within systems of non-verbal predication will be given in chapter 8-10, where the expression of predicable non-verbal predication types is studied.

6.1.1.3. Presentative predications. In 6.1.1.1 I looked at the predicability of non-presentative ascriptive predications. It is now time to turn to presentative ones. The set of presentative predications is a limited one: whereas non-verbal predications based on possessive and localizing predicates can be both presentative and non-presentative, non-verbal predications based on adjectival and nominal predicates are always non-presentative (see 5.5.1).[4] Thus, within the domain of presentative ascriptive non-verbal predication types only part of the predicate hierarchy presented above can be evaluated. Table 22 lists the relevant data. Some illustrative examples are given in Table 23.

There is only one language, Burushaski, in which the presentative possessive predication type might be predicable. The analysis of the construction is, however, not without problems. Consider the following example:

Burushaski (Isolate; Lorimer 1935)

(14) *X-ɛ* *hin* *i* *bʌm.*
X-GEN one son COP.PAST.3.SG
"Of X was one son."
'X had a son.'

This sentence can be interpreted as a presentative possessive predication. The possessive phrase occupies the predicate position and complies with the criteria for predicates used in ascriptive predications. But since in Burushaski the possessor precedes the numeral in term phrases and the copular verb *ba* is used in existential predications as well, (14) could also be paraphrased as 'A son of X existed'. Only by giving the construction the benefit of the doubt can it be interpreted as a possessive one.

4. It is probably because of this discrepancy that earlier studies concerned with the relations between non-verbal predication types have concentrated on possessive and locative predications, and have generally not paid much attention to adjectival and nominal predications.

Table 22. Predicability of presentative ascriptive predications

Language	$(x_i/\emptyset)_{Loc}$	$(x_i)_{Poss}$
!Xũ	+	-
Abkhaz	+	-
Arabic, Egyptian	+	-
Babungo	+	-
Bambara	+	-
Basque	+	-
Burushaski	+	+/-
Chinese, Mandarin	+	-
Chukchee	+	-
Dutch	+/-	-
Gilyak	+	-
Guaraní	+	-
Hausa	-	-
Hixkaryana	+	-
Hungarian	+	-
Jamaican Creole	+	-
Ket	+	-
Krongo	+	-
Lango	+	-
Mam	+	-
Miao	-	-
Nahali	+	-
Nasioi	+	-
Navaho	+/-	-
Ngalakan	-	-
Ngiyambaa	+/-	-
Pipil	+	-
Quechua, Imbabura	+	-
Sumerian	+	
Tagálog	-	-
Tamil	+	-
Thai	-	-
Turkish	+	-
Vietnamese	+	-
West Greenlandic	-	-
Yagaria	-	-
Yessan-Mayo	+/-	-

Table 23. Predicability of presentative ascriptive predications—some examples

Language	$(x_i/\emptyset)_{Loc}$	$(x_i)_{Poss}$
Burushaski	+	+/-
Pipil	+	-
Ngiyambaa	+/-	-

Thus, there is hardly any language, if any, in which presentative possessive predications are predicable. This observations can be written down, trivially, as an implicational hierarchy, as in (15):

(15) Predicate hierarchy 1B:
Presentative ascriptive predications
$(x_i/\emptyset)_{Loc}$ > $(x_i)_{Poss}$

This hierarchy states that presentative localizing predications are more easily predicable than presentative possessive predications, and predicts that if presentative possessive predications are predicable in a language, presentative localizing predications will be predicable as well.

Positing this hierarchy would be entirely irrelevant, if it were not for the fact that the terminal points of the two predicate hierarchies, the one presented in 6.1.1.1 and the one presented here, contain the same predicates. The differences that exist between the two sets of predications as regards their predicability are related to presentativity itself, as will be shown in 6.2.

6.1.2. Equative predications

There is little to be said about the predicability of equative predications. In all but one of the languages of the sample non-verbal predications based on referential predicates, whether identifying or classifying, specifying or characterizing, are predicable. The one exception concerns Abkhaz,[5] where identifying predications, i.e. equative non-verbal predications based on a definite referential predicate, are non-predicable. First consider the following example, as analyzed by Hewitt (1979):

5. I am grateful to Arie Spruit for bringing the facts to be discussed here to my attention.

Abkhaz (Caucasian, Hewitt 1979: 46)
(16) *Wəy Zaira l-a-w+p'.*
DEM Zaira 3.SG.OBJ-COP-STAT
'That's Zaira.'

Hewitt analyses the verbal form *-a/-ak'ʷ* as a copulative stem restricted to identifying equative constructions.

There are two problems with this analysis. The first, noted by Hewitt (1979: 105) himself, is that the personal prefix *l-* '3.SG' is not a subject but an object prefix. The second (Spruit, personal communication) is that in certain tenses the stem *-a/-ak'ʷ* may itself be accompanied by the copula *záa*, as in the following example:

Abkhaz (Caucasian, Spruit 1986: 124)
(17) *D-z-ak'°ɔ́-zaa-lak'gɔ́*
3.SG.M.SBJ-REL.OBJ-*ak'ʷ*-COP-ever
'whoever he is'

If *-a/-ak'ʷ* is analysed as a copulative stem, it is hard to explain why it should itself receive support of another copulative stem. Spruit (1986: 107) therefore analyzes *-a/-ak'ʷ* as a two-place lexical stem meaning 'identical to (OBJ)' rather than as a copulative stem. Within this approach, (16) and (17) would be analyzed as in (18) and (19):

Abkhaz (Caucasian, Spruit 1986: 107, 124)
(18) *Wəy Zaira ø-l-a-w-p'.*
DEM Zaira 3.SG.NH.SBJ-3.SG.F.OBJ-identical-PRES-DECL
"That is identical to Zaira."
'That's Zaira.'
(19) *D-z-ak'°ɔ́-zaa-lak'gɔ́*
3.SG.M.SBJ-REL.OBJ-identical-COP-ever
"whoever he is identical to"
'whoever he is'

The analysis of *-a/-ak'ʷ* as a lexical rather than a copulative stem thus accounts for both the object marking and the fact that *-a/-ak'ʷ* may itself be accompanied by a copula.

The data concerning the predicability of equative constructions are listed in Table 24. The two possible types are illustrated in Table 25. On the basis of these data the following hierarchy may be postulated, again, only trivially:

(20) Predicate hierarchy 2: Equative predications
(ix_i) > (dx_i)

Since only in the case of Abkhaz there is a difference in predicability between the two different types of equative predication, support for this hierarchy is rather weak. Its relevance will, however, be further demonstrated in chapter 8 in connection with the question of what grammatical means are used to express the different predication types.

The existence of predicate hierarchy 2 may be related to a difference in use between the two types of predicate that has been noted by several authors,[6] among others Lyons (1977: 470-473). In predications based on an indefinite term-predicate the focus is more often than not on the property expressed by the head noun rather than on the reference of the term phrase, whereas in predications based on a definite term-predicate the reverse holds true. The latter "are used, characteristically, to identify the referent of one expression with the referent of another" and the former "to ascribe to the referent of the subject-expression a certain property" (Lyons 1977: 472).

One might hypothesize now that the referential nature of definite term-predicates conflicts with a predicative status more easily than the non-referential nature of indefinite term-predicates. This problem is neatly solved in Abkhaz by turning the definite term into an argument of a lexical predicate, thus creating a situation in which the referential nature of the term is in harmony with its syntactic status. In several other languages the somewhat different status of definite term-predicates is reflected in the use of a special format for their expression, as will be shown in chapter 8.

Table 24. Predicability of equative predications—some examples

Language	(ix_i)	(dx_i)
Abkhaz	+	-
Tamil	+	+

6. For an overview and discussion see Keizer (1990).

Table 25. Predicability of equative predications

Language	(ix_i)	(dx_i)
!Xũ	+	+
Abkhaz	+	-
Arabic, Egyptian	+	+
Babungo	+	+
Bambara	+	+
Basque	+	+
Burushaski		+
Chinese, Mandarin	+	+
Chukchee	+	+
Dutch	+	+
Gilyak	+	+
Guaraní		+
Hausa	+	+
Hixkaryana	+	+
Hungarian	+	+
Jamaican Creole	+	+
Ket	+	+
Krongo	+	
Lango	+	+
Mam	+	+
Miao	+	+
Nahali		
Nasioi	+	+
Navaho	+	+
Ngalakan	+	+
Ngiyambaa	+	+
Pipil	+	+
Quechua, Imbabura	+	+
Sumerian	+	+
Tagálog	+	+
Tamil	+	+
Thai	+	+
Turkish	+	+
Vietnamese	+	+
West Greenlandic	+	+
Yagaria	+	+
Yessan-Mayo	+	+

6.2. Predicability and predication type

6.2.0. Introduction

In the preceding sections the degree of non-verbal predicability of the languages of the sample was studied in relation to predicate types within a number of different major predication types. Predicability can also be measured across major predication types: certain classes of predication, together constituting a major predication type, are much more easily predicable than others. Anticipating the data to be presented in the following sections, the different degrees of predicability of major predication types may be represented as in (21):

(21) Predication hierarchy
Equative > Ascriptive
Non-presentative > Presentative
Non-existential > Existential

What is shown in (21) is that the equative predication type is the most easily predicable, followed by the non-presentative ascriptive predication type, which is in turn followed by its presentative counterpart. Within the class of presentative predications non-existential predications are more easily predicable than existential ones. The latter hierarchy applies to localizing predications only.

The complex hierarchy in (21) will be reconstructed in the following sections. I will start with a comparison of the two most closely related predication types, the presentative and non-presentative ascriptive ones, in 6.2.1, and then draw equative predications into the picture in 6.2.2.

6.2.1. Ascriptive predications

The fact that two different predicate hierarchies had to be postulated in 6.1.1.1 and 6.1.1.2 for non-presentative and presentative ascriptive constructions suggests that presentativity itself should be treated as an independent parameter in the description of non-verbal predicability. The hierarchy emerging from the data is the one given in (22), which says that non-presentative predications are more easily predicable than presentative ones and that within the latter class non-existential ones are more easily predicable than existential ones.

(22) Predication hierarchy—Ascriptive predications
Ascriptive
Non-presentative > Presentative
Non-existential > Existential

Table 26. Predicability of localizing predications

Language	$(x_i)_{Loc}$/-Pres	$(x_i)_{Loc}$/+Pres	$(\emptyset)_{Loc}$/+Pres
!Xũ	+	+	+
Abkhaz	+	+	+
Arabic, Egyptian	+	+	+
Babungo	+	+	+
Bambara	+	+	+
Basque	+	+	+
Burushaski	+	+	+
Chinese, Mandarin	+	+	+
Chukchee	+	+	+
Dutch	+/-	+/-	+/-
Gilyak	+	+	
Guaraní	+	+	+
Hausa	+	-	-
Hixkaryana	+	+	+
Hungarian	+	+	+
Jamaican Creole	+	+	+
Ket	+	+	+
Krongo	+	+	+
Lango	+	+	+
Mam	+	+	+
Miao	+	-	-
Nahali	+		+
Nasioi	+	+	+
Navaho	+	+/-	+/-
Ngalakan	+/-	-	-
Ngiyambaa	+/-	+/-	-
Pipil	+	+	+
Quechua, Imbabura	+	+	+
Sumerian	+	+	+
Tagálog	-	-	-
Tamil	+	+	+
Thai	+	-	-
Turkish	+	+	+
Vietnamese	+	+	+
West Greenlandic	+	-	-
Yagaria	-	-	-
Yessan-Mayo	+		+/-

Table 27. Predicability of possessive predications

Language	$(x_i)_{Poss}$/-Pres	$(x_i)_{Poss}$/+Pres
!Xũ	-	-
Abkhaz	-	-
Arabic, Egyptian	-	-
Babungo	-	-
Bambara	-	-
Basque	-	-
Burushaski	+	+/-
Chinese, Mandarin	-	-
Chukchee	+	-
Dutch	+	-
Gilyak	-	-
Guaraní	-	-
Hausa	-	-
Hixkaryana	-	-
Hungarian	-	-
Jamaican Creole	+	-
Ket	+	-
Krongo		-
Lango	-	-
Mam		-
Miao	-	-
Nahali	+	-
Nasioi	-	-
Navaho	-	-
Ngalakan	+	-
Ngiyambaa	+	-
Pipil	-	-
Quechua, Imbabura	+	-
Sumerian	+	-
Tagálog	+	-
Tamil	-	-
Thai	-	-
Turkish	+	-
Vietnamese	-	-
West Greenlandic	-	-
Yagaria	-	-
Yessan-Mayo	-	-

Table 28. Predicability of localizing predications—some examples

Language	$(x_i)_{Loc}$/-Pres	$(x_i)_{Loc}$/+Pres	$(ø)_{Loc}$/+Pres
Bambara	+	+	+
Ngiyambaa	+/-	+/-	-
Hausa	+	-	-
Yagaria	-	-	-

Table 29. Predicability of possessive predications—some examples

Language	$(x_i)_{Poss}$/-Pres	$(x_i)_{Poss}$/+Pres
Burushaski	+	+/-
Dutch	+	-
West Greenlandic	-	-

The first part of the hierarchy in (22) can be tested for localizing and possessive predications only. These are the predication types that have both a presentative and a non-presentative realization (see 5.5). The second part can be tested for presentative localizing predications only, since only these have an existential and a non-existential realization (see 5.1.3). The relevant data are given in Tables 26-29. The data in these tables, particularly those in 26 and 28, support both parts of the hierarchy given in (22): in languages in which presentative predications of one of the two types are predicable their non-presentative counterparts are predicable as well, and in languages in which existential predications are predicable their non-existential counterparts are predicable as well.

There is only one language for which a difference in predicability between presentative locative and existential predications has been noted. In Ngiyambaa the existential non-verbal predication type is non-predicable, whereas the presentative locative one is under certain conditions. Consider the following examples:

Ngiyambaa (Pama-Nyungan; Donaldson 1980: 325, 233, 108)

(23) *Wanhdha-la-wa:-li:* *ga-ra.*
which-LOC-EXCLM-1.NOM.DU COP-PRES
'Whereat is it?'

(24) *Bura:y* *ŋini* *ga-ra.*
child.ABS here.LOC COP-PRES
'There are children here.'

(25) *Dhigu-buwan.*
emu.bush-PROPR.ABS
"It is with emu bushes."
'There is/are emu bushes.'

In Ngiyambaa both non-presentative (23) and presentative (24) locative predications are predicable, provided that the locative predicate is of a deictic nature (see 6.3). If the locative predicate is non-deictic, a positional verb is used. Existential predications, never having a deictic predicate, are never predicable. A proprietive construction (see 7.1.5) is used instead, as illustrated in (25).[7]

Having separated the predication hierarchy from the predicate hierarchy, the two may now be combined into the two-dimensional hierarchy given in Figure 32.

Hardly predicable

$(ø)_{Loc}$/+Pres			$(x_i)_{Poss}$/+Pres
$(x_i)_{Loc}$/+Pres			
$(x_i)_{Loc}$/-Pres	A/-Pres	N/-Pres	$(x_i)_{Poss}$/-Pres

Easily predicable

Figure 32. Predicate and predication hierarchy—version 1

In Figure 32 the predicate hierarchy is projected horizontally, the predication hierarchy vertically. In this way the terminal points of the two versions of the predicate hierarchy are connected, and the irrelevant combinations are simply not

7. The low number of languages in which existential locative predications are less easily predicable than non-existential ones may be partly the result of a problem that has already been noted in 5.1.3.2.2. It may be very hard to distinguish between a presentative locative predication and an existential one, since in the former the locative may often remain unexpressed if retrievable from the context. Most grammars do not go into this problem in any detail, and in most grammars examples are given out of context, so that a proper assessment of the status of an existential construction is impossible.

realized. The representation furthermore shows that the existential/non-existential distinction is relevant to presentative localizing predications only.

The bottom left box in Figure 32 represents an easily predicable predication type, the upper right box a hardly predicable predication type. Thus this picture shows that in a typological perspective non-presentative locative predications and presentative possessive predications are diametrically opposed as to their degree of predicability.

An explanation for the fact that presentative predications are not as easily predicable as non-presentative ones is that within presentative predications two functions have to be fulfilled at the same time: a location or possessor should be ascribed to an entity, which at the same time has to be introduced into the discourse. The introduction of an entity into the discourse can, however, be achieved more easily by relating the entity introduced to an entity already known to the addressee (see 5.5.1). Since such an entity is not available in existential predications, they are likely to be less easily predicable than non-existential ones.

6.2.2. Ascriptive and equative predications

The final predication type to be considered is the equative one. There are no direct links that can be established between this predication type and the ascriptive ones, since they do not share a common predicate type. The equative predication type truly stands apart in comparison with other types of non-verbal predication. A comparison can be made quite easily, however, since, as stated in 6.1.2, the most easily predicable type of equative predication, the classifying one, is available in all languages of the sample. Even the most easily predicable type of ascriptive predication, the non-presentative locative one, does not have this degree of predicability, as has been shown in 6.2.1.

On the basis of these facts, the predication hierarchy may be completed as in (26):

(26) Predication hierarchy
Equative > Ascriptive
Non-presentative > Presentative
Non-existential > Existential

The position of equative predications contiguous to non-presentative ascriptive ones was to be expected, since the two predication types share their non-presentativity. The fact that equative predications are more easily predicable than ascriptive ones can be explained taking into consideration what has been said about the uses of word classes and the typology of parts-of-speech systems in chapter 4. It was argued there that the distinguishing uses of non-verbal predicates are non-predicative. In ascriptive predications, however, they are used predicatively, which

requires the language to have a certain amount of flexibility with respect to the uses to which different classes of predicates may be put. Equative predications do not require this kind of flexibility: their predicate is a term phrase, within which nominal heads and adjectival and possessive modifiers can be used in their distinguishing, non-predicative functions.

Further corroboration for these statements can be found in 7.2. As will be shown there, the equative predication type often substitutes for non-presentative ascriptive predication types that are non-predicable in the languages of the sample. This is because, by doing so, nominal, adjectival, and possessive predicates are enabled to occur in their preferred distinguishing functions as constituents of term phrases. The same does not hold for locative predicates, the distinguishing use of which is adverbial. This sets locative predicates apart from all other types of predicate, which is reflected in their position in Figure 33.

Hardly predicable

$(\emptyset)_{Loc}$/+Pres			$(x_i)_{Poss}$/+Pres
$(x_i)_{Loc}$/+Pres			
$(x_i)_{Loc}$/-Pres	A/-Pres	N/-Pres	$(x_i)_{Poss}$/-Pres
	(ix_i)		(dx_i)

Easily predicable

Figure 33. Predicate and predication hierarchy—version 2

Figure 33 incorporates the main parameters that are relevant in the description of non-verbal predicability and can be viewed as a 'map' of the general area of non-verbal predication. This area is partitioned in various ways in the languages of the sample, particularly with respect to the grammatical means that are used to express the various types of non-verbal predication, as will be shown in chapter 9.

There are some further parameters that are relevant for a full description of non-verbal predicability, but these apply to subsets of the predication types listed in Figure 33 only. These parameters may be used to explain most of the occurrences of multiple values (+/-) in the tables presented earlier, and are concerned with deixis (6.3) and quantification (6.4).

6.3. Predicability and deixis

In preceding sections mention has been made of a difference in behaviour of locative predications with a deictic versus those with a non-deictic predicate. In some languages predicates corresponding to *here*, *there*, etc. and their interrogative counterpart *where* behave differently from other locative predicates, either with respect to the expression of the predication in which they occur (see chapter 8) or with respect to their degree of predicability. In Ngiyambaa, as indicated in 6.2.1, locative predications based on a locative question word (27) or demonstrative adverb (28) are predicable, but in other locative predications a positional verb has to be used (29)-(30):

Ngiyambaa (Pama-Nyungan; Donaldson 1980: 325, 233)

(27) *Wanhdha-la-wa:-li:* *ga-ra.*
which-LOC-EXCLM-1.NOM.DU COP-PRES
'Whereat is it?'

(28) *Bura:y* *ŋini* *ga-ra.*
child.ABS here.LOC COP-PRES
'There are children here.'

(29) **Bura:y* *galiŋ-ga* *ga-ra.*
child.ABS water-LOC COP-PRES
'There are children by the water.'

(30) *Bura:y* *galiŋ-ga* *wara-nha.*
child.ABS water-LOC stand-PRES
'There are children by the water.'

A similar difference in predicability of deictic and non-deictic locative predicates can be found in Ngalakan.

The hierarchy that may be tentatively posited on the basis of the data from these languages is given in (31):

(31) Deixis hierarchy
Deictic > Non-deictic

Since there are languages that allow the predicative use of both deictic and non-deictic locative predicates, and languages that allow the predicative use of neither of these, the possible instantiations of (31) are as illustrated in Table 30.

The situation in Ngalakan is particularly interesting, since in that language the deixis hierarchy interacts with the predication hierarchy. Thus, whereas non-presentative locative predications based on the deictic predicate *go?ye* 'here' are predicable, presentative ones based on that same predicate are not, as illustrated in (32)-(33):

Ngalakan (Gunwinyguan; Merlan 1983: 62, 176)

(32) *ŋu-go?ye.*
1.SG-here
'I'm here.'

(33) *Yipuñja* *munaŋa-či* *go?ye-gen.*
long.time.ago white.people-PRIV here-ADVR
"Long time ago it was white-people-less here."
'Long time ago there were no white people here.'

Table 30. Predicability and deixis

Language	$(x_i)_{Loc}$/+Deictic	$(x_i)_{Loc}$/-Deictic
!Xũ	+	+
Ngiyambaa	+	-
Ngalakan	+/-	-
Yagaria	-	-

6.4. Predicability and quantification

In some languages presentative predications are non-predicable if a quantifier is present. Consider the following examples:

Yessan-Mayo (Sepik-Ramu; Foreman 1974: 160, 223)

(34) *Sibu-wo* *ti-bwe.*
ashes-EXCL COP-PAST.CONT
'There were only ashes.'

(35) *Mate* *pes.*
bag two
"The bags are two."
'There are two bags.'

Existential predications that do not contain a quantifier, such as (34), are predicable in Yessan-Mayo. If a quantifier is present, however, it has to occupy the predicate position, the result being a *predicative quantifier construction* (see 7.1.6), which in this case is used as an alternative for the existential predication type, as illustrated in (35). Similar differences in predicability related to the presence versus absence

of a quantifier can be found in Navaho. The facts presented by these languages can be translated into the following hierarchy:

(36) Quantification hierarchy
Non-quantified > Quantified

In Table 31 the quantification hierarchy is illustrated for existential predications.

Table 31. Predicability and quantification

Language	$(\emptyset)_{Loc}$/-Quant	$(\emptyset)_{Loc}$/+Quant
Krongo	+	+
Yessan Mayo	+	-
West Greenlandic	-	-

The predicative quantifier construction will be studied in greater detail in 7.1.6 and 7.3.

6.5. Summary

In order to account for the differences in the extent to which non-verbal predication types are predicable in the languages of the sample, the following predicate hierarchies have been postulated:

(37) Predicate hierarchy 1 (1A+1B): ascriptive predications
$(x_i/\emptyset)_{Loc}$ > A > N > $(x_i)_{Poss}$

(38) Predicate hierarchy 2: equative predications
(ix_i) > (dx_i)

Different hierarchies had to be postulated for ascriptive and equative predications. The former was furthermore shown to have two different realizations in the presentative and non-presentative domain. This and other differences in predicability between major predication types were captured by the following predication hierarchy:

(39) Predication hierarchy
Equative > Ascriptive
Non-presentative > Presentative
Non-existential > Existential

The predicate and predication hierarchies were combined into a two-dimensional predicability hierarchy in Figure 33.

Although this two-dimensional hierarchy accounted for most of the facts, for some languages multiple values had to be given for the predicability of certain predication types. To account for these two additional hierarchies were formulated, a deixis hierarchy and a quantification hierarchy:

(40) Deixis hierarchy
Deictic > Non-deictic

(41) Quantification hierarchy
Non-quantified > Quantified

Together these hierarchies account for almost all the variation found in the languages of the sample with respect to the predicability of non-verbal predication types. The few remaining exceptions will be studied from a diachronic perspective in chapter 10. The hierarchies listed here will be shown to be relevant with respect to the alternatives chosen for non-predicable predication types and with respect to the expression of predicable predication types as well.