

## 5. A classification of non-verbal predications

### 5.0. Introduction

The aim of this chapter is to arrive at an exhaustive classification of non-verbal predications. The many subtle semantic differences between different types of non-verbal predication are often, at least partly, explained as residing in the different shades of meaning that a copula has. Given the approach followed in this study, in which the copula, if present in a language, is considered to be a semantically empty supportive device, the semantic differences between non-verbal predication types cannot be accounted for by making reference to the copula itself. Rather, these differences should be explained in terms of other elements of the non-verbal predications under consideration. Only in this way can a generally applicable classification be arrived at.

Not all elements of the underlying structure of non-verbal predications that have to be taken into account in order to arrive at such a classification are present in the relatively simple pattern given in (1), which was used in 3.2 to represent non-verbal predications:

$$(1) \quad (e_i: [\text{pred}_B (\alpha_1) \dots (\alpha_n)] (e_j)) \\ B \neq V$$

This representation furthermore does not include the modifications proposed in the preceding chapter. It should be replaced by the more complex pattern given in (2):

$$(2) \quad (e_i: [(f_1: \text{pred}_B (f_1)) (\alpha_1)_{\text{SemPragm}} \dots (\alpha_n)] (e_j)) \\ B \neq V$$

This pattern incorporates the predicate variable ( $f_1$ ) proposed in chapter 4. Furthermore, a general indication of the pragmatic (Pragm) and semantic (Sem) function of the first argument has been added.

The elements of this representation which will be used to arrive at a classification of non-verbal predications are the following:

- (i) Predicate type (B)
- (ii) Argument type ( $\alpha$ )
- (iii) Pragmatic function of first argument (Pragm)
- (iv) Semantic function of first argument (Sem)

These elements do not all have the same status. The first and second element are relevant to all, the third and fourth only to some non-verbal predication types. I will therefore start with a classification of non-verbal predicates (B) in 5.1 and a classification of arguments ( $\alpha$ ) in 5.2. Section 5.3 presents some ideas concerning

the ways in which predicates and arguments may be combined. Use is made of the notion of *predicability*, taken from ontological philosophy. The application of the ideas developed in 5.3 to the predicates and arguments distinguished in 5.1 and 5.2 results in a classification of non-verbal predications in 5.4 which accounts for the various semantic relations that can be expressed within these predications. In 5.5 a further division is made between presentative and non-presentative predications, a distinction that can be explained in terms of the pragmatic function (Pragm) of the first argument of the non-verbal predicate. In 5.6 a minor further subdivision is made between controlled and non-controlled non-verbal predications, a difference that can be dealt with in terms of the semantic function (Sem) of the first argument of the non-verbal predicate. Section 5.7 summarizes the results arrived at in this chapter.

## 5.1. Predicate types

### 5.1.0. Introduction

In the next sections the following types of predicate will be discussed:

(i) bare predicates,<sup>1</sup> which have received some attention in chapter 4, and are illustrated in (3) and (4):

- (3) *John is chairman.*  
 (4) *Sheila is intelligent.*

(ii) referential predicates,<sup>2</sup> which are based on constructions with a referential use (terms, propositions, etc.), as illustrated in (5) and (6):

- (5) *That man is my father.*  
 (6) *What I mean is that I don't like you.*

(iii) relational predicates,<sup>3</sup> which are based on constructions with a referential use marked for a semantic function, as illustrated in (7)-(9):

1. This label is taken from Dik (1980: 104).

2. This group includes apart from Dik's (1980: 102-104) *term predicates* also predication, proposition, and clause predicates (Hengeveld 1990b: 114, 1990c: 307).

3. This label is taken from de Groot (1989: 177).

- (7) *This book is for John.*  
 (8) *John was in the garden.*  
 (9) *The meeting was at five o'clock.*

### 5.1.1. Bare predicates

In chapter 4 it has been noted that languages may allow the predicative use of predicates whose distinguishing use is non-predicative. Consider the following examples:

- (10) a. *John is president.*                      b. *The president sings.*  
 (11) a. *John is nice.*                                b. *The nice president sings.*

In (10a) the word *president* is used predicatively. The fact that this same word may also be used as the head of a term shows that it is a nominal predicate. In (11a) the word *nice* is used predicatively. Since this word may also be used attributively it must be an adjectival predicate.

In the cases illustrated in the English examples (10)-(11) the presence of a copula can be taken as an additional indication of the non-verbal status of the main predicate. In languages without a copula the functional distribution of a word is the only indication of its word class membership. This can once again be demonstrated with some examples from Mojave, discussed in 4.0. In this language, as in many others, adjectives are inflected in the same way as verbs when used predicatively. The difference between the two categories shows up in their attributive use: adjectives can be used as noun modifiers without further measures being taken, whereas verbs require relativization, as illustrated in (12) and (13):

*Mojave* (Northern Amerind, Schachter 1985: 19)

- (12) a. *?i:pa-č homi:-k.*  
           man-SBJ tall-PRES  
           'The man is tall.'  
       b. *?i:pa-č su:paw-k.*  
           man-SBJ know-PRES  
           'The man knows.'  
 (13) a. *?i:pa homi:-n<sup>y</sup>-č        iva:-k.*  
           man tall-DEM-SBJ be.here-PRES  
           'The tall man is here.'  
       b. *?i:pa k<sup>w</sup>-su:paw-n<sup>y</sup>-č        iva:-k.*  
           man REL-know-DEM-SBJ be.here-PRES  
           'The man who knows is here.'

The semantic relation expressed in non-verbal predications based on bare adjectival predicates is, in very general terms, one of *property assignment* (Dik 1980: 104). In languages which allow the predicative use of bare nominal predicates the non-verbal predications based on these predicates express a much more specific semantic relation, which may be termed *status assignment*. Predicatively used bare nominal predicates often designate "membership of some established functional, professional or ideological group" (Dik 1980: 98). Consider the following examples:

*Basque* (Isolate; Lafitte 1944: 263)

- (14) *Soldado zen.*  
 soldier COP.PAST.IMPF.3.SG  
 "He was soldier."  
 'He was a soldier.'

*Dutch* (Indo-Hittite)

- (15) *Jan is geheelonthouder.*  
 John COP.PRES.3.SG teetotaller  
 "John is teetotaller."  
 'John is a teetotaller.'

In some cases kinship relations too can be expressed by means of bare nominal predicates. Thus, Merlan (1983: 57) notes the following about Ngalakan (Gunwinyguan): "Nouns which may serve as predicates include human status nouns, and kin stems including dyadic kin formations". A particularly interesting case in this respect is presented by Spanish:

*Spanish* (Indo-Hittite)

- (16) *Antonio es hijo de militantes apristas.*  
 Antonio COP.PRES.3.SG son of militant Apra-members  
 "Antonio is son of militant APRA members."  
 'Antonio is a son of militant APRA-members.'
- (17) *?Antonio es hijo de Pilar.*  
 Antonio COP.PRES.3.SG son of Pilar  
 "Antonio is son of Pilar."  
 'Antonio is a son of Pilar.'

In Spanish kinship nouns may be used predicatively in their bare form only if the kinship relation is indicative of the social status of the referent of the first argument term, as in (16). In other cases the predicative use of kinship nouns is questionable, as demonstrated by (17).

As shown in chapter 4, predications based on bare non-verbal predicates may be represented as in (18)-(19), where a non-verbal predicate restricts the main predicate variable ( $f_1$ ):

- (18)  $(f_1: \text{pred}_A(f_1)) (\alpha_1)_\emptyset$   
 (19)  $(f_1: \text{pred}_N(f_1)) (\alpha_1)_\emptyset$

The semantic relations that are expressed in non-verbal predications based on bare non-verbal predicates are listed in Table 7.

Table 7. Bare non-verbal predicates

Non-verbal predicate	Semantic relation
$(f_1: \text{pred}_A(f_1)) (\alpha_1)_\emptyset$	Property assignment
$(f_1: \text{pred}_N(f_1)) (\alpha_1)_\emptyset$	Status assignment

### 5.1.2. Referential predicates

5.1.2.0. Introduction. The class of referential predicates includes predicates based on terms, i.e. referring expressions with a nominal head, and predicates based on larger referential units, i.e. predications, propositions, and clauses. The former will be dealt with in 5.1.2.1, the latter in 5.1.2.2.

#### 5.1.2.1. Term predicates.

5.1.2.1.1. General properties. The concept *term-predicate* was first introduced in Dik (1980: 100-104). It concerns those predicates which are based on a referential expression with a nominal head. Since these have a number of properties in common with bare nominal predicates, I will start here with a comparison between the two, largely following the line of reasoning presented in Dik (1980: 99-100), itself partly based on Kraak—Klooster (1968: 143-149). Consider the following examples:

*Dutch* (Indo-Hittite; Dik 1980: 99)

- (20) *Jan is schilder.*  
 John COP.PRES.3.SG painter  
 "John is painter."  
 'John is a painter.'

- (21) *Jan is een schilder.*  
 John COP.PRES.3.SG INDEF painter  
 'John is a painter.'

The predicate *schilder* 'painter' in (20) is a bare nominal predicate, the predicate *een schilder* 'a painter' in (21) is a term-predicate. The translations show that the distinction cannot generally be made in English, as in many other languages (see chapter 6). The difference between the two constructions is not only reflected in the absence versus presence of the indefinite article *een*, it can also be demonstrated by differences in the syntactic behaviour of the two constructions:

- (i) The bare nominal predicate does not take a plural form when used with a plural subject (22), the term-predicate does (23):<sup>4</sup>

*Dutch* (Indo-Hittite; Dik 1980: 100)

- (22) *Jan en Piet zijn schilder.*  
 John and Pete COP.PRES.3.PL painter  
 "John and Pete are painter."  
 'John and Pete are painters.'

- (23) *Jan en Piet zijn schilder-s.*  
 John and Pete COP.PRES.3.PL painter-PL  
 'John and Pete are painters.'

- (ii) Bare nominal predicates cannot be modified (24), term-predicates can (25):

*Dutch* (Indo-Hittite; Dik 1980: 100)

- (24) *\*Jan is erg goede schilder.*  
 John COP.PRES.3.SG very good painter  
 "John is very good painter."  
 'John is a very good painter'

4. This is not a generally applicable syntactic test, however, since it does not apply to languages in which there is number agreement between subject term and bare (nominal or adjectival) predicate.

- (25) *Jan is een erg goede schilder.*  
 John COP.PRES.3.SG INDEF very good painter  
 'John is a very good painter.'

- (iii) Bare nominal predicates cannot be used as independent referring expressions (26), term-predicates can (27):

*Dutch* (Indo-Hittite)

- (26) *\*Ik ken schilder.*  
 I know.PRES.1.SG painter  
 "I know painter."  
 'I know a painter.'

- (27) *Ik ken een schilder.*  
 I know.PRES.1.SG INDEF painter  
 'I know a painter.'

The latter two differences clearly show that a term-predicate is in fact a referring expression used predicatively, hence the label *referential predicates*. At the same time they show how nominal predicates (nouns) differ from terms (noun phrases): nominal predicates can be used as the head of a term but are not terms themselves. The reverse holds as well: bare nominal predicates can be used as the head of a term phrase (28), term predicates cannot (29):

*Dutch* (Indo-Hittite)

- (28) *een schilder*  
 INDEF painter  
 'a painter'

- (29) *\*een een schilder*  
 INDEF INDEF painter  
 "an a painter"  
 'a painter'

In some languages the difference between bare nominal predicates and referential predicates has some formal reflection other than the presence or absence of an article. Thus, in Nama Hottentot bare nominal predicates take the copula *a* and are not marked for person, as in (30), whereas referential predicates occur without a copula and do receive person marking, as in (31):

*Nama Hottentot* (Khoisan; Olpp 1977: 89-90)

- (30) *Tita ge a gao.ao.*  
 1.SG DECL COP king  
 'I am king.'

- (31) *Tita ge gao.ao-ta.*  
 1.SG DECL king-1.SG  
 'I am the king.'

The predicate in (30) specifies the occupation of the subject, whereas in (31) it identifies the subject.

Dik (1980: 103) handles predicates derived from terms by means of a predicate formation rule of the format given in (32):

- (32) Term-predicate formation  
 Input:  $(x_i)$   
 Output:  $\{(x_i)\} (x_i)_\theta$

This predicate formation rule takes a term  $(x_i)$  as its input and turns it into a predicate, indicated by means of braces, which takes one argument with the semantic function Zero.

The availability of a predicate variable allows for a solution that does not involve predicate formation. Consider (33) and its simplified representation in (34):

- (33) *John is my best friend.*  
 (34)  $(f_i; (x_i; \text{my best friend } (x_i)_\theta) (f_i)) (x_i; \text{John } (x_i)_\theta)_\theta$

The predicative use of the term  $(x_i)$  is signalled here by the fact that this term restricts the predicate variable  $(f_i)$ . The second term  $(x_i)$  is the Zero argument of this predicate. Predicates of this type need not be created through a predicate formation rule if the lexicon contains some very general predicate frames like the one in (35):

- (35)  $(f_i; (x_1) (f_i)) (x_2)_\theta$

This predicate frame contains two open term positions,  $(x_1)$  and  $(x_2)$ . After term insertion an underlying structure such as (34) is arrived at. Note that I restrict myself here to terms referring to first order entities. Expressions referring to higher order entities will be dealt with in 5.1.2.2.

5.1.2.1.2. Definiteness and indefiniteness. Within the class of term-predicates further distinctions can be made. The first, discussed in Dik (1980: 101-102), concerns the (in)definiteness of the term used predicatively. Consider the following examples:

- (36) *That dog over there is Fido.*  
 (37) *That dog over there is a golden retriever.*  
 (38) *A golden retriever is a dog.*

In (36) the term used predicatively is definite and the semantic relation expressed by the non-verbal predication as a whole is one of *identification*. In (37) the predicative term is indefinite and the semantic relation is one of *class membership*. This predication type has a variant in which the argument term is indefinite too, as in (38), in which case the semantic relation expressed is one of *class inclusion*. Since the focus of this section is on the non-verbal predicate I will regard class membership and class inclusion as two more specific instances of the general semantic relation of *classification*.

In some languages the distinction between identification and classification has some formal reflection within their system of non-verbal predication. Thus, in Akan different copulas are used in the expression of predications based on definite and indefinite term-predicates. Consider the following examples:

Akan (Niger-Congo Proper; Welmers 1973: 309)

- (39) *Mí'-kyéw ní yí.*  
 POSS.1.SG-hat COP DEM  
 'This is my hat.'  
 (40) *ǝ-yè kyéw.*  
 3.SG-COP hat  
 'It's a hat.'

A somewhat different situation obtains in Lango. In this language a copula is not obligatory in constructions based on term-predicates in the present tense. There is, however, an optional pronominal copula *én* which may be inserted in identificational predications only. Compare the following examples:

Lango (Nilo-Saharan, Noonan 1981: 45)

- (41) *Mán 'gwók.*  
 DEM 3.SG.dog.HAB  
 'This is a dog.'  
 (42) *Án (én) àdàktál.*  
 I (COP) 1.SG.doctor.HAB  
 'I am the doctor.'

The examples of Akan and Lango show that the distinction between definite and indefinite term-predicates is not only semantically relevant but may also have effects on the way systems of non-verbal predication are organized.

The semantic relations which can be expressed in non-verbal predications based on definite and indefinite term-predicates may now be summarized as in Table 8.

Table 8. Term-predicates

Non-verbal predicate	Semantic relation
$(f_1; (dx_1) (f_1)) (x_2)_\emptyset$	Identification
$(f_1; (ix_1) (f_1)) (x_2)_\emptyset$	Classification

5.1.2.1.3. Specification and characterization. The distinction between definite and indefinite term-predicates is insufficient to account for all the differences between term-predicates. Compare the following examples (Verheugd 1982: 127):

- (43) *The capital of France is Paris.*  
 (44) *Paris is the capital of France.*

Although at first sight these examples seem to have the same value, there are important differences between them. These have been noted by several authors, including Blom—Daalder (1977), Verheugd (1982, 1990), Longobardi (1987), Declerck (1988), and Keizer (1990).

Somewhat differently from these earlier proposals, I would like to characterize the difference between (43) and (44) in the following way: in (43) the predicate *Paris* exhaustively characterizes its argument *the capital of France*, whereas in (44) the predicate *the capital of France* is normally interpreted as not giving an exhaustive characterization of its argument *Paris*. This difference can be brought out by means of the following paraphrases of (43) and (44), respectively:

- (45) a. *\*The capital of France is, among other things, Paris.*  
 b. *\*One of the things that I can tell you about the capital of France is that it is Paris.*  
 (46) a. *Paris is, among other things, the capital of France.*  
 b. *One of the things that I can tell you about Paris is that it is the capital of France.*

Another way of defining the distinction between the two constructions is to say that in (43) the predicate and argument term are coextensive, whereas in (44) they are not. In (43) the predicate gives an alternative specification of the referent set<sup>5</sup> of the argument term: *the capital of France* can be specified alternatively as *Paris*.

5. In this case the referent set contains only one member.

This may be called *specification*. In (44) one of the characteristics of the members of the referent set of the argument term is given: one of the ways in which *Paris* can be characterized is as *the capital of France*, but it has several other characteristics as well. This may be called *characterization*.

A further illustration of the distinction between specification and characterization is given in (47)–(48), which show that specificational sentences answer the question *who/what is x?*,<sup>6</sup> whereas characterizational sentences answer the question *what can you tell me about x?*:

- (47) a. *What is the capital of France?*  
 b. *The capital of France is Paris.*  
 (48) a. *What can you tell me about Paris?*  
 b. *Paris is the capital of France.*

The distinction between *specification* and *characterization* is of crucial importance to the analysis of copular sentences in Thai, as has been demonstrated in Kuno—Wongkhomthong (1981).<sup>7</sup> In this language different copulas are used for specificational and characterizational sentences. Consider the following examples:

Thai (Daic; Kuno—Wongkhomthong 1981: 67,66)

- (49) *Pràtha:na:thibbòdi: khò:ŋ sàhàràd.àme:rka: \*pen/khi: kha:tà.*  
 president GEN United.States COP Carter  
 'The president of the United States is Carter.'  
 (50) *Khru: sàmid pen/\*khi: khru: khon dī:aw thā:wnán*  
 teacher Smith COP teacher person single only  
*thī: rī:agrò:ŋ khwa:m yúdtitham.*  
 REL demand NR honest  
 'Mr. Smith is the only teacher who demands honesty.'

6. Since the question words *who/what* may secondarily be used to solicit characterizational information this test should be applied with care. Here these question words are interpreted as soliciting *uniquely identifying* (Kuno—Wongkhomthong 1981: 71) information.

7. However, Kuno—Wongkhomthong (1981: 67) give a somewhat different characterization of the distinction. They furthermore use the term *identificational* for specificational sentences. Since this term may give rise to confusion elsewhere I prefer the term *specificational*, which is taken from Declerck (1988: 1), who attributes it to Akmajian (1979).

In the specificational sentence (49) the copula *khi:* is the only possibility, in the characterizational sentence (50) only the copula *pen* is allowed. In some cases both copulas may be used, as in (51), the inverse of (49):

Thai (Daic; Kuno—Wongkhomthong 1981: 65)

- (51) *Kha:t̄θ: kh-:lpen pr̄atha:na:thibb̄ōdi: kh̄s̄:ŋ s̄àh̄àràd.àme:r̄fka:.*  
 Carter COP president GEN United.States  
 'Carter is the president of the United States.'

The fact that in this sentence both copulas can be used can be explained as a result of the fact that the predicate term in (51) can be interpreted either as providing an alternative coextensive specification or as providing one of the characteristics of the argument term. Thus, Thai makes a systematic distinction between specification and characterization within its system of non-verbal predication, a distinction that in other languages triggers behavioural rather than formal differences.

Note that the specificational and characterizational constructions discussed so far all have definite predicate terms, so that both types would fall under the class of identificational predications as distinguished in the previous section. This raises the question of whether the distinction between specification and characterization can be applied to classificational predications as well. If so, this distinction could be treated as a separate parameter in the classification of predications based on term-predicates, in the way indicated in Figure 21.

	Specification	Characterization
Identification	1	2
Classification	3	4

Figure 21. Cross-classification of predications based on term-predicates

The two types of identificational predications, types 1 and 2 in this classification, have been discussed above. Some examples are repeated here:

- (52) *The capital of France is Paris.* (type 1)  
 (53) *Paris is the capital of France.* (type 2)

Types 3 and 4 have not been given any consideration so far, but they do exist. Consider the following examples:

- (54) *A bachelor is an unmarried man.* (type 3)  
 (55) *A cat is an animal.* (type 4)

The crucial difference between these sentences is that (54) gives an exhaustive specification of the argument term, whereas (55) does not. Being a definition, (54) contains an argument and a predicate term which are coextensive. In (55), on the other hand, the argument and predicate term are not coextensive, since *cats* form a subset of *animals*.

These examples show quite clearly that the distinction between specification and characterization can be seen as a separate parameter in the classification of predications based on a term-predicate. Although all the types listed in Figure 21 are recognized in the general literature, the relation between them has to my knowledge not been recognized as systematic in the way indicated.<sup>8</sup> This generalization of the parameter does, however, follow quite naturally from the facts presented by Thai. Consider the following classificational sentences:

Thai (Daic; Kuno—Wongkhomthong 1981: 75)

- (56) *M̄anūd kh-: s̄àdpr̄às̄:đ s̄s̄:ŋ th̄á:w th̄i: s̄ā:m̄ā:d*  
 human COP supreme.animal two leg REL can  
*s̄i: d̄ây d̄ū:ay pha:s̄ā:.*  
 communicate can with language

'Humans are supreme (two-legged, KH) animals that can communicate with language.'

- (57) *M̄anūd pen s̄àd s̄s̄:ŋ th̄á:w.*  
 human COP animal two leg  
 'Humans are two-legged animals.'

Example (56) is a specificational sentence. It could also occur with the copula *pen*, but Kuno—Wongkhomthong (1981: 75) note that if it "is meant as a definition of man, with all other properties that they possess ignored, then, *khi:* is used". Example (57) is a characterizational sentence.

The general applicability of the specification-characterization parameter can be demonstrated in even more detail. In the previous section, classificational predications were subdivided into expressions of class membership and of class inclusion. Class inclusion constructions have been illustrated in (54)-(57). The following are class membership constructions:

8. For instance, Declerck (1988) recognizes specificational sentences (approx. type 1), predicational sentences (approx. type 4), descriptively identificational sentences (type 2), and definitions (type 3), but only in the first two cases does he treat them in opposition.

Thai (Daic; Kuno—Wongkhamthong 1981: 89, 88)

- (58) *Man pen nāŋsī: thī: sànùg.*  
 it COP book REL interesting  
 'It is an interesting book.'
- (59) *Nī: khi: nāŋsī:.*  
 DEM COP book  
 'This is a book.'

The characterizational sentence (58) can be used to characterize an object as a member of a larger class of interesting books. The specificational sentence (59), on the other hand, can only be used to assign a name to an object. It could, for instance, occur in a situation in which pupils are taught the names of various items. In such a context the indefinite predicate term may serve as an exhaustive specification of the argument term.

In order to capture the crucial difference between specificational and characterizational sentences within the framework of Functional Grammar the representations listed in Table 8 have to be adapted. The refinement I would like to propose here finds its motivation in the observation made above that in specificational predications the argument term and the predicate term are coextensive, i.e. both have the same referent set, whereas in characterizational predications they are not. The coextensiveness of two terms can be shown by the identity of their indexes. Thus, the following would be the general representations for specificational and characterizational sentences:

- |      |                                      |                  |
|------|--------------------------------------|------------------|
| (60) | $(f_i: (x_j) (f_j)) (x_j)_\emptyset$ | Specification    |
|      | $(f_i: (x_j) (f_j)) (x_j)_\emptyset$ | Characterization |

These representations can be paraphrased as in (61) and (62), respectively:

- (61) Specification: The referent set of the argument term is identical to the referent set of the predicate term.
- (62) Characterization: The members of the referent set of the argument term are also members of the referent set of the predicate term.

It follows from the paraphrases in (61) and (62) that specificational sentences are concerned with the description of *referent sets*. This is shown in their representation, in which the descriptions of the referent set vary, but the variable remains constant. This point can be illustrated by what I consider to be the

specificational construction *par excellence*, the identity statement, and its representation:<sup>9</sup>

- (63) *The Morning Star is the Evening Star.*  
 (64)  $(f_i: (dx_i: \textit{Evening Star} (x_i)_\emptyset) (f_i)) (dx_i: \textit{Morning Star} (x_i)_\emptyset)_\emptyset$

Sentences like (63), as represented in (64), serve no other purpose than to state that two names, *Morning Star* and *Evening Star*, may be used for the same referent set ( $x_i$ ).

Characterizational sentences are concerned with the description of *members of referent sets*. Their representation reflects this fact, since not only the descriptions of the referent sets, but also the variables of these sets vary. This can be illustrated by the characterizational sentence in (65) and its representation in (66):

- (65) *A cat is an animal.*  
 (66)  $(f_i: (ix_i: \textit{animal} (x_i)_\emptyset) (f_i)) (ix_i: \textit{cat} (x_i)_\emptyset)_\emptyset$

In representation (66) of sentence (65) the members of the referent set of the argument term ( $x_i$ ) are also members of the referent set of the predicate term ( $x_i$ ), i.e. every entity with the property *cat* also has the property *animal*. However, the characterization *animal* can be applied to many animals other than cats. Thus, the two terms should have different referent sets.

It may appear somewhat more difficult to apply the specification-characterization distinction to identificational sentences such as (67) and (68):

- (67) *The capital of France is Paris.*  
 (68) *Paris is the capital of France.*

The two sentences can nevertheless be distinguished along the lines sketched in (61) and (62). In (67) one and the same referent set is provided with the descriptions *the capital of France* and *Paris*. The only difference between the identity statement discussed earlier and this specificational sentence is that in the former both the argument and the predicate term are headed by a proper noun. In (68) the single member of the referent set of the argument term shares the property *capital of France* with the single member of the referent set of the predicate term, but it has many other properties as well. The identity versus non-identity of the indexes of the

9. For a discussion of identity statements see Declerck (1988:110-112), who treats them as a separate category.



argument and predicate term are representative of the exhaustive vs. non-exhaustive interpretation of the two sentences.

The identity versus non-identity of the indexes may furthermore help to explain an important difference between specificational and characterizational sentences. Specificational sentences are reversible, whereas characterizational sentences are not, as illustrated in (69)-(72):

- (69) Type 1: identification-specification: reversible  
 a. *The capital of France is Paris.*  
 b. *Paris is the capital of France.*
- (70) Type 2: identification-characterization: irreversible  
 a. *Paris is the capital of France.*  
 b. *\*The capital of France is Paris.*
- (71) Type 3: classification-specification: reversible  
 a. *A bachelor is an unmarried man.*  
 b. *An unmarried man is a bachelor.*
- (72) Type 4: classification-characterization: irreversible  
 a. *A cat is an animal.*  
 b. *\*An animal is a cat.*

Note that the grammaticality judgements here relate to the intended meaning. This is particularly relevant in the case of example (69b) and (70b). In itself (70b) is correct, but it is not a characterizational sentence, witness the ungrammaticality of the following paraphrase:

- (73) *\*The capital of France is, among other things, Paris.*

Example (69b), on the other hand, even if it also has a characterizational interpretation, as in (70a), can indeed be used as a specificational sentence, as can be illustrated by means of (74):

- (74) a. *What is Paris?*  
 b. *Paris is the capital of France.*

The reversibility of specificational constructions follows quite naturally from the fact that the predicate and argument term have the same index, i.e. the same referent set.

The different types of predication discussed so far may now be classified as in Table 9.

Table 9. Term-predicates—version 2

Non-verbal predicate	Semantic relation
$(f_1: (dx_1) (f_1)) (x_2)_\emptyset$	Identification
$(f_1: (dx_1) (f_1)) (x_2)_\emptyset$	Specifying
$(f_1: (dx_1) (f_1)) (x_2)_\emptyset$	Characterizing
$(f_1: (ix_1) (f_1)) (x_2)_\emptyset$	Classification
$(f_1: (ix_1) (f_1)) (x_2)_\emptyset$	Specifying
$(f_1: (ix_1) (f_1)) (x_2)_\emptyset$	Characterizing

5.1.2.2. Other referential predicates. Apart from referential predicates based on terms, there are referential predicates based on more complex referential units, such as non-finite and finite constructions, as illustrated in (75)-(77):

- (75) *The best thing you can do is to go home.*  
 (76) *My reason for not accepting his invitation is that I don't like him.*  
 (77) *His question was "Where are you going?".*

What all these predicates have in common is that in other contexts they may be used as truly referential units, e.g. as arguments of higher predicates, as in (78)-(80):

- (78) *He wants to go home.*  
 (79) *I think that I don't like him.*  
 (80) *He said: "Where are you going?".*

The predicates in (75)-(77) can be subclassified according to their internal complexity. The predicate *to go home* in (75) is a non-finite predication describing an event, i.e. a second order entity, which can be located in space and time. The predicate *that I don't like you* in (76) is a finite proposition describing a propositional content, i.e. a third order entity, which can be located in neither space nor time. The predicate *"Where are you going"* in (77) is a full clause describing a speech act, i.e. a fourth order entity, which locates itself in space and time.

As has been illustrated in 1.5, each of the units listed here correlates with a particular layer in the Functional Grammar clause model. These layers are once again listed in (81).

- (81) Layers  
 Clause: (E<sub>1</sub>: [ILL (S) (A) (X<sub>1</sub>: etc. (X<sub>1</sub>))] (E<sub>1</sub>))  
 Proposition: (X<sub>1</sub>: [(e<sub>1</sub>: etc. (e<sub>1</sub>))] (X<sub>1</sub>))  
 Predication: (e<sub>1</sub>: [pred<sub>g</sub> (α<sub>1</sub>)<sup>n</sup>] (e<sub>1</sub>))

A clause refers to a fourth order entity, a proposition to a third order entity, and a predication to a second order entity. Terms have been discussed in the previous section. Using this formalism the constructions in (75)-(77) may be assigned the simplified representations in (82)-(84):

- (82) (f<sub>1</sub>: (e<sub>1</sub>: go home (e<sub>1</sub>)) (f<sub>1</sub>)) (e<sub>1</sub>: the best thing you can do (e<sub>1</sub>)<sub>∅</sub>)<sub>∅</sub>  
 (83) (f<sub>1</sub>: (X<sub>1</sub>: I don't like him (X<sub>1</sub>)) (f<sub>1</sub>)) (X<sub>1</sub>: my reason for not accepting his invitation (X<sub>1</sub>)<sub>∅</sub>)<sub>∅</sub>  
 (84) (f<sub>1</sub>: (E<sub>1</sub>: Where are you going? (E<sub>1</sub>)) (f<sub>1</sub>)) (E<sub>1</sub>: his question (E<sub>1</sub>)<sub>∅</sub>)<sub>∅</sub>

Thus, there are referential predicates based on predications (82), propositions (83), and clauses (84).

The semantic relations expressed in predications based on these predicates are hard to define. Roughly speaking, predications based on predication predicates are concerned with the *instantiation* of events, those based on proposition predicates with the *factuality* of propositional contents, and those based on clause predicates with the *interpretation* of speech acts. Note that, as stated in 1.6, there are also terms referring to higher order entities. These may be put to use in the predication types discussed here with the same semantic effects.

It is interesting to note that the number of further subdivisions to be made within each of these predicate classes seems to decrease as the referential unit on which the predicate class is based is of higher complexity. Within the class of non-verbal predications based on term-predicates both the definiteness-indefiniteness and the specification-characterization parameters appeared to be relevant. Within the class of constructions based on predications only the specification-characterization distinction seems to be relevant, as in the following examples:

- (85) Instantiation-Specification: reversible  
 a. *The best thing you can do is to go home.*  
 b. *To go home is the best thing you can do.*  
 (86) Instantiation-Characterization: irreversible  
 a. *To spank is to love.*  
 b. *\*To love is to spank.*

In the case of constructions based on proposition and clause predicates not even the specification-characterization opposition seems to be operative. All of these constructions appear to be of a specifying nature, witness the following examples:

- (87) Factuality: reversible  
 a. *My reason for not accepting his invitation is that I don't like him.*  
 b. *That I don't like him is my reason for not accepting his invitation.*  
 (88) Interpretation: reversible  
 a. *His question was "Where are you going?".*  
 b. *"Where are you going?" was his question.*

The full class of referential predicates may now be summarized as in Table 10.

Table 10. Referential predicates

Non-verbal predicate	Semantic relation
Term predicates	
(f <sub>1</sub> : (dx <sub>1</sub> ) (f <sub>1</sub> )) (x <sub>1</sub> ) <sub>∅</sub>	Identification
(f <sub>1</sub> : (dx <sub>1</sub> ) (f <sub>1</sub> )) (x <sub>1</sub> ) <sub>∅</sub>	Specifying
(f <sub>1</sub> : (dx <sub>1</sub> ) (f <sub>1</sub> )) (x <sub>1</sub> ) <sub>∅</sub>	Characterizing
(f <sub>1</sub> : (ix <sub>1</sub> ) (f <sub>1</sub> )) (x <sub>1</sub> ) <sub>∅</sub>	Classification
(f <sub>1</sub> : (ix <sub>1</sub> ) (f <sub>1</sub> )) (x <sub>1</sub> ) <sub>∅</sub>	Specifying
(f <sub>1</sub> : (ix <sub>1</sub> ) (f <sub>1</sub> )) (x <sub>1</sub> ) <sub>∅</sub>	Characterizing
Predication-predicates	
(f <sub>1</sub> : (e <sub>1</sub> ) (f <sub>1</sub> )) (e <sub>1</sub> ) <sub>∅</sub>	Instantiation
(f <sub>1</sub> : (e <sub>1</sub> ) (f <sub>1</sub> )) (e <sub>1</sub> ) <sub>∅</sub>	Specifying
(f <sub>1</sub> : (e <sub>1</sub> ) (f <sub>1</sub> )) (e <sub>1</sub> ) <sub>∅</sub>	Characterizing
Proposition-predicates	
(f <sub>1</sub> : (X <sub>1</sub> ) (f <sub>1</sub> )) (X <sub>1</sub> ) <sub>∅</sub>	Factuality
Clause-predicates	
(f <sub>1</sub> : (E <sub>1</sub> ) (f <sub>1</sub> )) (E <sub>1</sub> ) <sub>∅</sub>	Interpretation

### 5.1.3. Relational predicates

5.1.3.1. General properties. Relational predicates are predicates based on a referential expression that carries an indication of a semantic function, as illustrated in the following examples:

- (89) *Sheila was in London.*

- (90) *The meeting was at five o'clock.*  
 (91) *This book is by Shakespeare.*

In other contexts the predicative parts of these sentences could be used as satellites (92)-(93), as arguments (94)-(95), or as restrictors (96)-(97):

- (92) *I met Sheila in London.*  
 (93) *I met Sheila at five o'clock.*  
 (94) *Sheila lives in London.*  
 (95) *This book was written by Shakespeare.*  
 (96) *Our representative in London is Sheila.*  
 (97) *I've bought a book by Shakespeare.*

In each of these uses of prepositional phrases the preposition is indicative of the nature of the semantic relation between the term it introduces and some other constituent. Thus, in (92), (94), and (96) the preposition *in* is indicative of a locative relation: between the event designated by the predication and the satellite *London* in (92), between the argument *Sheila* and the argument *London* in (94), and between the head *representative* and the restrictor *London* in (96).

Similarly, in (89), in which the prepositional phrase acts as a non-verbal predicate, the preposition *in* is indicative of the locative relation between the argument *Sheila* and the predicative term *London*. This is accounted for in Dik's (1980: 104-110) analysis of constructions of this type. He proposes to derive prepositional predicates by means of a predicate formation rule of the general format given in (98):

- (98) Prepositional-predicate formation  
 Input:  $(\alpha_i)_{Sem}$   
 Output:  $\{(\alpha_i)_{Sem}\} (\alpha_1)_{\emptyset}$

This rule is identical to the term-predicate formation rule discussed in 5.1.2.1, except for the addition of the semantic function (Sem) of the term used predicatively.

Against this predicate formation rule Mackenzie—Hannay (1982: 55) have raised the objection that it makes use of terms marked with a semantic function outside the context of a predicate frame, which, given that a semantic function is a relational notion, poses a major theoretical problem. For Mackenzie—Hannay (1982: 55) this criticism applies both to the input and to the output of rule (98), since one of their assumptions is that a semantic function expresses a semantic

relation between a term and a predicate.<sup>10</sup> This assumption is, I think, incorrect. A semantic function does not express a semantic relation between a term and a predicate, but a semantic relation between (referents of) terms. A predicate merely lexicalizes the nature of this relation.<sup>11</sup>

Within this view only the input structure in (98) should be disallowed, since in this structure there is a term with a semantic function that cannot be interpreted in relation to another term. The output structure should be allowed, since it contains two terms, each provided with a semantic function, which can be interpreted as expressing a semantic relation with respect to each other. The alternative analysis I proposed for term-predicates in 5.1.2.1 can be applied in the case of relational predicates as well and provides a way to avoid the input structure in (98). Depending on the semantic functions that a particular language allows a predicative term to have, several predicate frames can be postulated, which follow the general pattern given in (99), in which, as stated in 1.6,  $\alpha$  ranges over the variables used for different types of entity:

- (99)  $(f_i: (\alpha_1)_{Sem} (f_i)) (\alpha_2)_{\emptyset}$

An example of a predicate frame conforming to this general format is given in (100), which has a predicate term provided with the locative semantic function:

- (100)  $(f_i: (x_1)_{Loc} (f_i)) (x_2)_{\emptyset}$

Term insertion into the positions  $(x_1)$  and  $(x_2)$  of this predicate frame leads to e.g. (101), which can be contrasted with the comparable construction (102):

- (101)  $(f_i: (x_i: London (x_i)_{\emptyset})_{Loc} (f_i)) (x_j: Sheila (x_j)_{\emptyset})_{\emptyset}$   
 'Sheila is in London.'  
 (102)  $(f_i: live_V (f_i)) (x_j: Sheila (x_j)_{\emptyset})_{Pos} (x_i: London (x_i)_{\emptyset})_{Loc}$   
 'Sheila lives in London.'

The semantic relation that obtains between the participants *Sheila* and *London* is the same in (101) and (102). The two constructions differ, however, in the way this

10. This same view is present in de Groot (1989: 177-179), who proposes to link relational predicates to lexical predicates expressing the same type of relation, and in Hannay (1990: 100-104), who, building on Mackenzie (1983), proposes to derive relational predicates from an input structure in which nominal predicates are associated with satellites.

11. This relational use of semantic functions can be interpreted as a reflection of their more basic function of representing the roles of participants within a state of affairs. Semantic functions that occur in intransitive contexts do just that.

relation is expressed. In (101) the locative term is put in predicative position, with the result that it is the locative relation as such that is predicated. In (102) this locative relation is further specified by a lexical predicate *live*, which takes the locative term as one of its arguments.

The proposal to deal with relational predicates in terms of generally applicable predicate frames, as in (100), thus provides a way to deal with this type of predicate that recognizes the relational nature of semantic functions. At the same time it accounts for the language-specific restrictions on the predicative use of terms provided with a semantic function. The lexicon simply lists the possibilities. For instance, the predicate frames that would be needed in order to account for the English examples (89)-(91) are given in (103)-(105):

- (103)  $(f_i; (x_1)_{Loc} (f_i)) (x_2)_{\emptyset}$   
 (104)  $(f_i; (e_1)_{Temp} (f_i)) (e_2)_{\emptyset}$ <sup>12</sup>  
 (105)  $(f_i; (x_1)_{Ag} (f_i)) (x_2)_{\emptyset}$

In the following sections I will look at some types of relational predicate in more detail. I will restrict myself to locative, existential, and possessive predicates, since only on these types of predicate information from many different languages is readily available, which may be an indication of the crucial role these predicates play within systems of non-verbal predication.

### 5.1.3.2. Localizing predicates

5.1.3.2.0. Introduction. The term *localizing predicate* is used here to cover locative (5.1.3.2.1) and existential (5.1.3.2.2) predicates. It is useful to have a term covering these two types, since they behave quite similarly in several respects, as will be shown in chapter 6.

5.1.3.2.1. Locative predicates. Locative predicates form one of the classes of non-verbal predicate most frequently encountered in the languages of the sample (see chapter 6). The following examples show that locative predicates may indeed be treated as non-verbal predicates:

*Nasioi* (East Papuan; Rausch 1912: 611)

- (106) *Pava ko oto-maun.*  
 house LOC COP.3.SG-PRES  
 'He is at home.'

12. It is not entirely clear what type of entity *time* is. It might constitute a type of its own. Here I provisionally use the e-variable.

*Ket* (Isolate; Castrén 1858: 103)

- (107) *Xus-kei-di.*  
 tent-LOC-1.SG  
 'I am in the tent.'

*Babungo* (Niger Congo Proper; Schaub 1985: 52)

- (108) *ŋwə (lūw) taa ŋii.*  
 he (COP) LOC house  
 'He is in the house.'

In *Nasioi* the copula *otomaun* is obligatory in non-verbal predications based on a locative predicate, as in (106). This might lead one to conclude, as often happens in grammars of individual languages, that what is here considered a copula should rather be treated as a lexical verb meaning 'to be located'. That this is not a necessary consequence of the occurrence of a copula in a locative construction can be derived from the *Ket* example (107), in which the same locative relation is expressed without the intervention of a copula, and from the *Babungo* example (108), which shows that under certain circumstances a copula may be optional.

If the constituent acting as a locative main predicate is compared with the basic predicate classes recognized in chapter 4, it can be characterized as a constituent whose distinguishing function is adverbial, i.e. it can be used as a modifier of a non-nominal head. The adverbial status of locative predicates can be shown by the fact that in several languages they cannot be used attributively, i.e. to modify a head noun, whereas they can be used adverbially, i.e. to modify a predication. Compare the following examples:

*Hungarian* (Uralic-Yukaghir; de Groot 1989: 173, 174, 45)

- (109) *A kutya a kert-ben van.*  
 DEF dog DEF garden-LOC COP.PRES.3.SG  
 'The dog is in the garden.'
- (110) *a kert-ben levő kutya*  
 DEF garden-LOC COP.PRES.PART dog  
 'the in-the-garden-being dog'  
 'the dog in the garden'
- (111) *Pali könyv-et olvas a kert-ben.*  
 Paul book-ACC read.PRES.3.SG DEF garden-LOC  
 'Paul is reading a book in the garden.'

*Hungarian* requires a copula (*van*) with a locative phrase used predicatively, as shown in (109). Such a phrase cannot be used attributively without further measures being taken. The only way to attribute a locative property to a head noun is to form a predication in which the locative phrase is the main predicate, and to apply this

predication to the head noun as a participial construction, as in (110). The main predicate status of the locative phrase is reflected in the obligatory presence of a form of the copula *van*. The locative phrase can, however, be used adverbially without further measures being taken, as in (111).

The primarily adverbial function of the locative phrase does not exclude its being used attributively in several languages. As shown by the translations of (110)-(111) English allows both the attributive and the adverbial use of locative phrases. From a typological perspective, however, the adverbial use of locative phrases is their distinguishing use.

5.1.3.2.2. Existential predicates. In many languages existential constructions correspond to a large extent to some locative construction. Consider the following pairs of examples:

*Burushaski* (Isolate; Berger 1974: 66, 62)

- (112) *To hen badsân bam.*  
there INDEF king COP.PAST.3.SG  
'There was a king over there.'
- (113) *Hen yarîp zamindâren bam.*  
once poor farmer COP.PAST.3.SG  
'Once there was a poor farmer.'

*Turkish* (Altaic; van Schaaik, personal communication)

- (114) *26 numara-h oda-da bir toplantı var-ø.*  
26 number-PROPR room-LOC one meeting COP-PRES.3.SG  
'There's a meeting in room 26.'
- (115) *Toplantı var-ø.*  
meeting COP-PRES.3.SG  
'There's a meeting.'

*Canela-Krahô* (Ge-Pano-Carib; Popjes—Popjes 1986: 135)

- (116) *Pur kam pôhy.*  
field LOC corn  
'There is corn in the field.'
- (117) *Cu-ri cõ.*  
3.SG-LOC water  
'Water is at it.'  
'There is water.'

In languages such as *Burushaski*, *Turkish*, *Canela-Krahô*, and many others there is reason to say that the existential construction is simply a locative construction in

which the location is left unspecified.<sup>13</sup> In this respect the examples from *Canela-Krahô* in (116) and (117) are particularly illuminating, since in that language a third singular pronoun indicating the location realizes the unspecified predicate term. The examples from this language furthermore show that a copula such as *ba* in *Burushaski* or *var* in *Turkish* is not a necessary ingredient of the existential construction.

Dik (1980: 110) proposes to represent comparable existential constructions in Dutch and English as in (118), which has been adapted to the representational conventions used in this study:

- (118)  $(f_i: (\emptyset)_{Loc} (f_i)) (x_i)_{\emptyset}$

This representation differs from the one used for locative predications only in that the locative term remains unspecified. Existential predicates are thus considered to form a special subtype of locative predicates.

There are basically two situations in which a locative predicate may remain unspecified. Both are illustrated by Dik (1980: 109) by means of examples like the following:

- (119) *There is beer without alcohol.*  
(120) *There is beer without alcohol in the kitchen.*

Sentence (119) may be used, in the appropriate context, to replace a locative construction such as (120), e.g. in a situation in which the speaker has already offered his addressee to get him something from the kitchen. In this reading the locative predicate term is left unspecified because it is to be reconstructed anaphorically. This sentence should therefore be represented as in (121) rather than as in (118):

- (121)  $(f_i: (x_i)_{Loc} (f_i)) (x_i: \text{beer without alcohol } (x_i)_{\emptyset})_{\emptyset}$

where  $(x_i)$  refers anaphorically to the kitchen mentioned previously. Although the locative term remains unexpressed, this construction should still be considered a true locative construction.

Alternatively, (119) may be used to simply affirm the existence or availability of beer without alcohol, in which case it must be located somewhere, but the exact location is irrelevant. For this reading the representation in (118) can be maintained,

13. Compare also Lyons (1977: 723), who states: "It can be argued, in fact, that existence is but the limiting case of location in an abstract, deictically neutral, space ...".

since in this case the locative predicate does not only remain unexpressed, but cannot even be retrieved from the context.

The distinction between locative predications with an implied predicate term on the one hand and existential predications on the other has a formal reflection in Tamil. In this language the copulas *iru* and *untu* can be used in locative constructions (the latter only in presentative constructions, see 5.5), whereas in existential constructions *untu* is the only possibility. This leads to oppositions like the following:

Tamil (Elamo-Dravidian; Asher 1982: 51-52)

- (122) *Kannan viittile irukkaraar-aa.*  
Kannan house.LOC COP.PRES.3.SG.H-INT  
'Is Kannan at home?'
- (123) *Kannan irukkaraar-aa.*  
Kannan COP.PRES.3.SG.H-INT  
'Is Kannan (in)?'
- (124) *Katavul untu.*  
God COP  
'God is.'
- (125) *Pani manusan untu.*  
snow man COP  
'There is (such a being as) a yeti.'
- (126) *Meele oruttan irukkaraan.*  
above one.person COP.PRES.3.SG.M  
'There's somebody up there.'
- (127) *Inta uuttile eppavum tanni rompa unt-aa.*  
DEM spring.LOC always water much COP-INT  
'Is there always plenty of water in this spring?'

In the non-presentative (see below) locative construction (123), in which a locative term such as *viittile* 'at home' in (122) can be retrieved from the context, the copula *iru* is used, whereas in the existential constructions (124)-(125) the copula *untu* is the only possibility. Examples (126)-(127) show that both copulas can be used in presentative locative constructions.

The question of whether existential constructions in a particular language can be considered instances of non-verbal predication is often difficult to answer. In addressing this question with respect to other construction types the non-predicative uses of the constituent acting as a non-verbal predicate played an important role. Consider in this respect the following examples once again:

- (128) *John is president.*  
(129) *The president sings.*

One of the reasons to consider *president* in (128) a non-verbal predicate is that this same constituent can be used as the head of a term, i.e. has a non-predicative use, as in (129). Since according to the analysis outlined above existential non-verbal predications are characterized by a zero locative predicate, this 'non-verbal predicate' cannot be subjected to tests of any kind. This situation raises a problem in those languages in which the existential construction contains a verbal form. Consider again the following example:

Tamil (Elamo-Dravidian; Asher 1982: 52)

- (130) *Pani manusan untu.*  
snow man COP  
'There is (such a being as) a yeti.'

This sentence could be analyzed in two different ways: (i) the verbal form *untu* in (130) is the main predicate with the meaning 'exist', or (ii) the verbal form *untu* in (130) is a copula which links the argument term with an (unspecified) existential predicate. These two interpretations are represented in (131) and (132):

- (131) (e; [(f; untu<sub>v</sub> (f<sub>i</sub>)) (x; pani manusan (x<sub>i</sub>)<sub>θ</sub>]<sub>θ</sub>] (e<sub>i</sub>))  
(132) (e; [(f; (θ)<sub>Loc</sub> (f<sub>i</sub>)) (x; pani manusan (x<sub>i</sub>)<sub>θ</sub>]<sub>θ</sub>] (e<sub>i</sub>))

It is impossible to decide on the basis of example (130) alone which of these analyses is the correct one, so that the problem has to be solved in an indirect manner. I have taken the view that if the verbal form in an existential construction can be used as a copula in a non-verbal predication type other than existential it can be considered a copula in the existential construction as well. Thus, in Tamil the verb *untu* used in existential constructions can be considered a copula, since it proves its copular status in (presentative) locative constructions, witness, again, the following example:

Tamil (Elamo-Dravidian; Asher 1982: 52)

- (133) *Inta uuttile eppavum tanni rompa unt-aa.*  
DEM spring.LOC always water much COP-INT  
'Is there always plenty of water in this spring?'

The underlying structure of (130) is therefore the one given in (132).

This representation of existential constructions may also be used for languages in which the copula used in existential constructions differs from but is clearly related to the copula used in locative constructions. Consider the following examples:

Krongo (Kordofanian; Reh 1985: 379, 398)

- (134) *ŋ-áfi biiti kí-rí.*  
M-COP.IMPF water LOC-brook  
'There's water in the brook.'
- (135) *ŋáa náamá áfiidi.*  
CONN thing COP.INF  
'When there is something...'  
'When something happens ...'

Krongo uses the copula *áfi* in locative constructions, and the copula *áfiidi* in existential constructions. Reh (1985: 415) glosses the former as 'to be somewhere' and the latter as 'to exist'. The two verbs are clearly formally related. Furthermore, both are replaced in negative contexts by the same negative semi-copula *t-ittá*, 'not to be somewhere/not to exist'. This may be taken as an indication that *áfi* and *áfiidi* are two forms of the same copula. The differences in the realization of this copula should then be triggered by the presence versus absence of a specified locative term.

There are several languages in which the existential construction cannot be analyzed as a non-verbal predication type with an unspecified locative predicate. The alternative constructions used in these languages will be examined in some detail in chapter 7.

5.1.3.3. Possessive predicates. Possessive main predicates occur much less frequently in the languages of the sample than locative predicates. Here are some examples:

Dutch (Indo-Hittite)

- (136) *Dat huis is van Karel.*  
DEM house COP.PRES.3.SG POSS Karel  
'That house is of Karel.'  
'That house is Karel's.'

Imbabura Quechua (Andean; Cole 1982: 115)

- (137) *Chay wasi nuka-paj-mi.*  
DEM house 1-POSS-VAL  
'That house is of me.'  
'That house is mine.'

Example (137) from Quechua shows that a possessive construction need not contain a copula.

If, as in the case of locative predicates, the constituent acting as the main predicate in possessive constructions is compared with the basic predicate classes

recognized in chapter 4, it can be characterized as a constituent whose distinguishing function is attributive, i.e. it can be used as a modifier of a nominal head. Compare (136) with (138):

Dutch (Indo-Hittite)

- (138) *het huis van Karel*  
DEF house POSS Karel  
'the house of Karel'  
'Karel's house'

The adverbial use of possessive phrases is excluded altogether.

For those languages that allow the predicative use of possessive phrases, this construction type has the predicate frame given in (139):

- (139)  $(f_i; (x_1)_{\text{Poss}} (f_i)) (x_2)_{\emptyset}$

5.1.3.4. Summary. The different types of relational predicate distinguished in this section and the semantic relations expressed in the predications based on these predicate types may now be summarized as in Table 11.

Table 11. Relational predicates

Non-verbal predicate	Semantic relation
$(f_i; (x_1/\emptyset)_{\text{Loc}} (f_i)) (x_2)_{\emptyset}$	Localization
$(f_i; (x_1)_{\text{Loc}} (f_i)) (x_2)_{\emptyset}$	Location
$(f_i; (\emptyset)_{\text{Loc}} (f_i)) (x_1)_{\emptyset}$	Existence
$(f_i; (x_1)_{\text{Poss}} (f_i)) (x_2)_{\emptyset}$	Possession

#### 5.1.4. Major non-verbal predication types

5.1.4.1. Equative, ascriptive, and existential predication. The three major categories of non-verbal main predicate described in the preceding sections are used in the construction of different types of non-verbal predication, related as indicated in Figure 22.

Predication type	Predicate type	Predication subtype
Ascriptive	Bare	Non-existential
	Relational	Existential
Equative	Referential	

Figure 22. Equative, ascriptive, and existential predication

Bare and relational predicates share an important feature, as has been shown in passing: in their non-predicative use the elements constituting these classes of predicate can be used to create referring expressions, either as a head or as a modifier. The difference between the elements constituting bare and relational predicates is that the former are lexemes whereas the latter are not.

The functional similarity between bare and relational predicates is once again shown in the following series of Dutch examples:

*Dutch* (Indo-Hittite)

- (140) a. *Vincent is schilder.*  
 Vincent COP.PRES.3.SG painter  
 'Vincent is painter.'  
 'Vincent is a painter.'
- b. *Ik ken een schilder.*  
 I know.PRES.1.SG INDEF painter  
 'I know a painter.'
- (141) a. *Vincent is beroemd.*  
 Vincent COP.PRES.3.SG famous  
 'Vincent is famous.'
- b. *Ik ken een beroemde schilder.*  
 I know.PRES.1.SG INDEF famous painter  
 'I know a famous painter.'
- (142) a. *Dit boek is van Vincent.*  
 DEM book COP.PRES.3.SG POSS Vincent  
 'This book is of Vincent.'  
 'This book is Vincent's.'
- b. *Ik lees een boek van Vincent.*  
 I read.PRES.3.SG INDEF book POSS Vincent  
 'I'm reading a book of Vincent.'

- (143) a. *Vincent is in de tuin.*  
 Vincent COP.PRES.1.SG LOC DEF garden  
 'Vincent is in the garden.'
- b. *Ik lees een boek in de tuin.*  
 I read.PRES.1.SG INDEF book LOC DEF garden  
 'I'm reading a book in the garden.'

Nouns (140a), adjectives (141a), possessive phrases (142a), and locative phrases (143a) can all be used predicatively in Dutch. All these constituents can also be used as heads or as modifiers: a noun (140b) can be used as the head of a term, an adjective (141b) or a possessive phrase (142b) can be used as a modifier of a nominal head, and a locative phrase (143b) can be used as a modifier of a non-nominal head (see 4.3). In this case the locative adverb modifies the predication.

The term *ascriptive* (Lyons 1977: 148) is used here to underline the basic function of the elements that constitute bare and relational main predicates. These elements have in common that, as heads or as modifiers, they build up a picture of some entity, e.g. an individual or a situation, by ascribing some property, taken in the widest possible sense of the word, to that entity. This functional similarity between bare and relational predicates is reflected in some of the typological facts to be presented in the second part of this study.

*Existential* predications constitute a subtype within the class of ascriptive predications. The primary function of existential predicates is to introduce the referent of their argument term into the discourse by ascribing existence to it, whereas other relational predicates predicate some concrete property of their argument term. The fact that existential predications are based on an empty locative predicate that generally cannot be isolated within the construction (see 5.1.3.2.2) sets them apart from other predication types based on a relational predicate. This particular property of existential predications is reflected in the special position existential predications occupy within the typology of systems of non-verbal predication, as will be shown in chapters 6-8:

For lack of a better term, the label *equative* is used here, although it is somewhat biased in the direction of identifying predications, to refer to all predications based on a referential predicate.<sup>14</sup> These differ from ascriptive predications in that the

14. The fact that *terms* cannot be used as modifiers does not mean that *term-predicates* cannot be used in this way. Consider the appositive construction in (i) and its representation in (ii), adapted from de Groot—Limburg (1986: 49-50):

- (i) *de schilder Vincent*  
 DEF painter Vincent  
 'the painter Vincent'
- (ii)  $(x_1: (f_1: schilder_N (f_1)) (x_1): (f_1: (x_1: Vincent_N (x_1)) (f_1)) (x_1))$



elements constituting referential predicates cannot be used to create referring expressions, but are referring expressions (see 5.1.2).

5.1.4.2. The identification of major non-verbal predication types. In the analysis of non-verbal predication types in individual languages it is important to have some criteria to decide whether a construction qualifies as an ascriptive, existential, or equative predication. The following characteristics summarize what has been said in the preceding section and can be considered to be the distinctive features of the three types of predication:

- (i) Ascriptive non-verbal predications are predications based on a predicate which, apart from its predicative use, has some non-referential non-predicative use.
- (ii) Equative non-verbal predications are based on a predicate which, apart from its predicative use, has some referential non-predicative use.

As stated in 5.1.3.3.3, additional strategies are required to identify existential non-verbal predications, which may be captured by the following characterization:

- (iii) Existential non-verbal predications are predications based on a lexically empty predicate.

Some examples of the expression of possession may show the importance of a consistent application of these criteria. Consider the following examples:

*Latin* (Indo-Hittite; Bolkestein 1983: 60, 55, 67)

- (144) a. *Liber puer-i est.*  
book.NOM boy-GEN COP.PRES.3.SG  
'The book is of the boy.'
- b. *liber puer-i*  
book.NOM boy-GEN  
'the book of the boy'
- (145) a. *Liber puer-o est.*  
book.NOM boy-DAT COP.PRES.3.SG  
'There is a book to the boy.'
- b. *\*liber puer-o*  
book.NOM boy-DAT  
'the book to the boy'

The Latin constructions in (144a) and (145a) both express possessive meaning and look very similar, yet there is an important difference. The examples in (144) show that, next to the predicative use of the genitive constituent, as in (144a), there is an

attributive use of this constituent, as in (144b), whereas the examples in (145) show that the dative constituent cannot be used attributively, witness the ungrammaticality of (145b). Following criterion (i), the dative constituent in (145a) can therefore not be considered a possessive main predicate, but should be analyzed as an argument or satellite.<sup>15</sup>

As a result, example (145a) is left without a constituent that could qualify as a non-verbal main predicate, which, following criterion (iii), leaves open the possibility that (145a) is an existential non-verbal predication. The fact that *esse* has several other copular uses confirms this analysis (see 5.1.3.3.3).

For another illustration of the importance of a consistent application of the criteria consider the English examples (146)-(148) (for (146) see de Groot 1983: 111):

- (146) a. *John's book*      b. *The book is John's.*      c. *I prefer John's.*  
(147) a. *my book*      b. *\*The book is my.*      c. *\*I prefer my.*  
(148) a. *\*mine book*      b. *The book is mine.*      c. *I prefer mine.*

The examples in (146) show that the genitive constituent *John's* can be used attributively and predicatively, but also as an independently referring unit provided that the possessed item is understood from the context. In its predicative use the context by definition makes clear what the possessed item is, and there is no reason to assume that in this case the genitive constituent is not an independently referring constituent. This assumption is corroborated by (147) and (148), which show that the attributive *my* cannot be used as an independently referring unit nor applied predicatively, while the independently referring *mine* can be used predicatively but not attributively. Following the definitions of ascriptive and equative predications, these facts lead to the conclusion that in English possessive predications such as (146b) are equative rather than ascriptive constructions.

### 5.1.5. Summary

The different types of non-verbal predicate distinguished in the preceding sections may now be classified and summarized as in Table 12.

15. See Bolkestein (1983: 66) for this argument.

Table 12. Non-verbal predicates

Non-verbal predicate	Semantic relation
Ascriptive predications	
Relational predicates	
$(f_1: (x_1)_{\text{Poss}} (f_1)) (x_2)_{\emptyset}$	Possession
$(f_1: (x_1/\emptyset)_{\text{Loc}} (f_1)) (x_2)_{\emptyset}$	Localization
$(f_1: (x_1)_{\text{Loc}} (f_1)) (x_2)_{\emptyset}$	Location
$(f_1: (\emptyset)_{\text{Loc}} (f_1)) (x_1)_{\emptyset}$	Existence
Bare predicates	
$(f_1: \text{pred}_A (f_1)) (x_1)_{\emptyset}$	Property assignment
$(f_1: \text{pred}_N (f_1)) (x_1)_{\emptyset}$	Status assignment
Equative predications	
Term-predicates	
$(f_1: (dx_1) (f_1)) (x_2)_{\emptyset}$	Identification
$(f_1: (dx_1) (f_1)) (x_1)_{\emptyset}$	Specifying
$(f_1: (dx_1) (f_1)) (x_2)_{\emptyset}$	Characterizing
$(f_1: (ix_1) (f_1)) (x_2)_{\emptyset}$	Classification
$(f_1: (ix_1) (f_1)) (x_1)_{\emptyset}$	Specifying
$(f_1: (ix_1) (f_1)) (x_2)_{\emptyset}$	Characterizing
Predication-predicates	
$(f_1: (e_1) (f_1)) (e_2)_{\emptyset}$	Instantiation
$(f_1: (e_1) (f_1)) (e_1)_{\emptyset}$	Specifying
$(f_1: (e_1) (f_1)) (e_2)_{\emptyset}$	Characterizing
Proposition-predicates	
$(f_1: (X_1) (f_1)) (X_2)_{\emptyset}$	Factuality
Clause-predicates	
$(f_1: (E_1) (f_1)) (E_2)_{\emptyset}$	Interpretation

## 5.2. Argument types

### 5.2.0. Introduction

The classification of non-verbal predicates arrived at in the previous section accounts for many semantic differences between predications based on these predicate types, without the necessity of attributing these semantic differences to a

copula. There are, however, some shades of meaning that can be found within non-verbal predications that are not captured by the formalism. The sentences in (149)-(150) illustrate one of the problematic cases:

- (149) *The table is in the next room.*  
 (150) *The meeting is in the next room.*

The copula in (149) can be paraphrased as 'be located', the copula in (150) as 'take place'. Although the difference may seem marginal, it is important enough to be formally reflected in some languages. Japanese, for instance, uses different locative postpositions depending on whether the argument refers to an individual or to an event, as illustrated in (151)-(152):

Japanese (Altaic; Makino 1968: 3)

- (151) *Illinois daigaku.wa Illinois syuu-ni arru.*  
 Illinois university Illinois state-LOC COP  
 'The University of Illinois is in the state of Illinois.'  
 (152) *Olympics.ga Mexico-de arru.*  
 Olympics Mexico-LOC COP  
 'The Olympics will be held in Mexico.'

The locative suffix *-ni* in (151) is used with arguments referring to entities with physical dimensions, the locative suffix *-de* in (152) is used with arguments referring to entities with temporal dimensions. In both cases the same copula is used.

Spanish uses different copulas to make the same distinction,<sup>16</sup> as illustrated in (153)-(154):

Spanish (Indo-Hittite; Hengeveld 1986: 397)

- (153) *La mesa está en la sala 14.*  
 DEF table COP.PRES.3.SG LOC DEF room 14  
 'The table is in room 14.'  
 (154) *La reunión es en la sala 14.*  
 DEF meeting COP.PRES.3.SG LOC DEF room 14  
 'The meeting is in room 14.'

The copula *estar* in (153) is used for the location of individuals, the copula *ser* in (154) for the location of events.

16. This is not the only difference between *ser* and *estar*. See Hengeveld (1986) for further details.

The Turkish examples in (155)-(156), finally, show that the same semantic difference may be present, without being reflected formally, in constructions without a copula:

*Turkish* (Altaic; van Schaaik, personal communication)

- (155) *Köpek bahçe-de.*  
 dog yard-LOC  
 'The dog is in the yard.'
- (156) *Toplantı 26 numara-h oda-da.*  
 meeting 26 number-PROPR room-LOC  
 'The meeting is in room 26.'

Neither of the two Turkish constructions makes use of a copula, yet the same semantic difference is present. This shows that in a typologically adequate approach the difference in meaning between the two constructions cannot be attributed to the copula, but must be interpreted as residing in the nature of the argument terms. What we need, then, besides a classification of non-verbal predicates, is a classification of arguments.

### 5.2.1. Entities

In 1.6 some attention has been paid to the difference between first, second, third, and fourth order entities. The distinction between the first three types, and their characterization given below, is mainly due to Lyons (1977: 442-447, see also Vendler 1967). Extending his terminology, the fourth type was defined in Hengeveld (1989: 130). The main differences between the four types of entity are repeated in Table 13.

Table 13. A classification of entities

Entity	Order	Evaluation
Individual	First	Existence
SoA	Second	Reality
Propositional Content	Third	Truth
Speech Act	Fourth	Felicity

First order entities can be located in space. They can have colour, size, and weight, can be touched, and are typically evaluated in terms of their existence. Second order entities can be located in space and time, can be witnessed and regretted, and are typically evaluated in terms of their reality.<sup>17</sup> Third order entities can be located in neither space nor time, can be known and forgotten, asserted and denied, and are typically evaluated in terms of their truth. Fourth order entities locate themselves in space and time,<sup>18</sup> can be uttered and understood, and are typically evaluated in terms of their felicity.

### 5.2.2. Arguments

In 1.5 it was argued that within utterances all four types of entity discussed in the preceding section are introduced or referred to. For this reason several layers are identified within the structure of the clause in Functional Grammar, each provided with its own variable, varying in form depending on the type of entity it refers to: an *x* for first order entities, an *e* for second order entities, an *X* for third order entities, and an *E* for fourth order entities.

One of the reasons to assume that these four variables are present in the underlying representation of utterances is that anaphoric reference can be made to any of these variables after the production of an utterance, as illustrated in (157)-(160):

- (157) A: *Come here, please!*  
 B: *Is that (AE<sub>i</sub>) an order?*
- (158) A: *He's a liar.*  
 B: *That (AX<sub>i</sub>) is not true!*
- (159) A: *John won't come.*  
 B: *That (Ae<sub>i</sub>) is a pity!*
- (160) A: *Yesterday I saw a boy with a scar on his face.*  
 B: *That (Ax<sub>i</sub>) must have been my brother!*

In (157) anaphoric (A) reference is made to the preceding speech act *E<sub>i</sub>* as a whole, in (158) to the propositional content *X<sub>i</sub>* presented in the preceding speech act, in

17. An individual exists if it is located someplace. A state of affairs is real if it occurred someplace, sometime.

18. Thus neither third nor fourth order entities can be located in space or time, but for different reasons: a propositional content simply has no location in space or time, speech acts set their own spatial and temporal parameters.

(159) to the state of affairs  $e_i$  to which reference is made within the preceding speech act, and in (160) to one of the participants  $x_i$  to which reference is made in the preceding speech act.

While demonstrating that the different parts of the utterance can be referred to separately, these examples show at the same time that every one of these parts can be made the argument of a higher predicate (see 1.9). The nature of an argument term is determined entirely by the type of the governing predicate. Some illustrations from the verbal domain were given in 1.9. The following are examples from the non-verbal domain:

- (161)  $Question_N (E_i)_\emptyset$
- $True_A (X_i)_\emptyset$
- $Stupid_A (e_i)_\emptyset$
- $Green_A (x_i)_\emptyset$

With respect to the expression of the four types of argument there are two possibilities, which are listed in Table 14.

Table 14. Realizations of argument types

Entity	Clause unit	Term
Fourth order	$(E_i: \text{clause } (E_i))$	$(E_i: \text{pred}_N (E_i)_\emptyset)$
Third order	$(X_i: \text{proposition } (X_i))$	$(X_i: \text{pred}_N (X_i)_\emptyset)$
Second order	$(e_i: \text{predication } (e_i))$	$(e_i: \text{pred}_N (e_i)_\emptyset)$
First order	$(x_i: \text{pred}_N (x_i)_\emptyset)$	$(x_i: \text{pred}_N (x_i)_\emptyset)$

The first possibility is to use the corresponding layer from the hierarchical clause structure. The limited second possibility is to refer to all types of entity by means of terms.

With respect to the first possibility, the expression of arguments by means of the corresponding clause units, the difference between the four kinds of argument has some formal reflection in several languages. Nama Hottentot (Hagman 1973, see also Hengeveld 1989: 147-148) uses terms for first order arguments, nominalizations for second order arguments, has a specialized complementizer for third order arguments and a quote particle for fourth order arguments. The examples (162)-(165) show that the situation is quite similar in English:

- (162) *His question was "Where are you going?"* (quote)
- (163) *It's true that I don't like you.* (finite complement)
- (164) *It's stupid to drive without a license.* (non-fin.compl.)
- (165) *The grass is green.* (term)

With respect to the second possibility, the expression of arguments by means of terms, compare the following sentences:

- (166) *It was a big mistake to visit him.*
- (167) *The visit was a big mistake.*

In (166) the argument of the non-verbal predicate *a big mistake* is the non-finite predication *to visit him*, in (167) it is the term *the visit*, as represented in (168)-(169), respectively:

- (168)  $(f_i: (e_i: \text{mistake}_N (e_i)_\emptyset: \text{big}_A (e_i)_\emptyset) (f_i)) (e_j: [\text{visit}_V (x_i)_{Ag} (x_j: 3.sg (x_j)_\emptyset)_{Go}] (e_j))_\emptyset$
- (169)  $(f_i: (e_i: \text{mistake}_N (e_i)_\emptyset: \text{big}_A (e_i)_\emptyset) (f_i)) (e_j: \text{visit}_N (e_j)_\emptyset)_\emptyset$

Nouns such as *mistake* and *visit* designate second order entities and may therefore be called, following Lyons (1977: 446), second order nouns. Similarly, nouns such as *idea* and *reason* designate third order entities and may be called third order nouns, and nouns such as *order* and *question* designate fourth order entities and may be called fourth order nouns.

### 5.2.3. Arguments of non-verbal predicates

Let me return to the examples given at the beginning of this section, repeated here as (170)-(171):

- (170) *The table is in the next room.*
- (171) *The meeting is in the next room.*

These sentences may now be represented as in (172)-(173):

- (172)  $(f_i: (x_i: \text{next room } (x_i)_\emptyset)_{Loc} (f_i)) (x_j: \text{table } (x_j)_\emptyset)_\emptyset$
- (173)  $(f_i: (x_i: \text{next room } (x_i)_\emptyset)_{Loc} (f_i)) (e_j: \text{meeting } (e_j)_\emptyset)_\emptyset$

Through the use of different variables these representations correctly show that the difference between the two constructions resides in the nature of the argument terms. These different variables trigger different postpositions in Japanese, as was

illustrated in (151)-(152), and different copulas in Spanish, as in (153)-(154), and, in more general terms, allow for an account of the different semantic relations expressed by these constructions.

### 5.3. Predicability

#### 5.3.0. Introduction

Given that not only the predicate type but also the argument type is relevant for the definition of possible non-verbal predications, the question remains in what way predicates and arguments may be combined. In order to answer this question I will use the concept of *predicability*. This notion has been the subject of study in ontological philosophy (Sommers 1965, 1967; Drange 1966), cognitive psychology (Keil 1979), and linguistics (Bickerton 1981). Both the ontological and the linguistic uses of the term are relevant in the present context.

#### 5.3.1. Ontological predicability

The definition of predicability can be given in different forms. I start with an ontologically based definition in (174):

- (174) Predicability (ontological):  
 The possibility of meaningful attribution of a property or relation P to an entity E: a property or relation P is predicable of an entity E if the attribution of P to E is meaningful.

The examples (175)-(177) may serve to illustrate what meaningful attribution is:

- (175) *Grass is green.*  
 (176) *Grass is blue.*  
 (177) *?Grass is at six o'clock.*

Example (175) can be seen as containing a true proposition, (176) as containing a false proposition. Example (177), on the other hand, contains neither a true nor a false proposition, but is semantically anomalous. The difference between a false proposition and a semantically anomalous proposition is that the negative variant of a false proposition is a true proposition, whereas the negative variant of a semantically anomalous proposition is still a semantically anomalous proposition, as (178)-(179) show:

- (178) *Grass is not blue.*  
 (179) *?Grass is not at six o'clock.*

Drange (1966) uses the term *type crossing* for semantically anomalous propositions like (176) and (179). It should be noted that in order to determine whether a sentence contains a type crossing it should be taken literally. In a metaphorical sense a type crossing could well be acceptable, and in fact many metaphors are indeed type crossings.

#### 5.3.2. Linguistic predicability

The concept of predicability can also be defined in linguistic terms, as in (180):

- (180) Predicability (linguistic):  
 The possibility of grammatically acceptable application of a predicate f to an argument  $\alpha$ : a predicate f is predicable of an argument  $\alpha$  if the application of f to  $\alpha$  is grammatically acceptable.

There is not always a one-to-one correspondence between what is ontologically predicable and what is linguistically predicable. Ontological predicability is a largely language-independent notion, linguistic predicability a language-dependent one.

Discrepancies between the two systems of predicability may easily arise. Sometimes languages are more permissive than ontology, and the result is a metaphor. In other respects languages may be less permissive than ontology, in which case the need for a periphrastic expression arises, as represented in Figure 23.

	Metaphor	Periphrasis
Ontologically predicable	-	+
Linguistically predicable	+	-

Figure 23. Discrepancies in predicability systems

Periphrastic expressions arise where a language does not permit the direct expression of an ontologically predicable relation or property. Consider the following example:

(181) *It's stupid to drive without a license.*

In English the application of an adjectival predicate such as *stupid* in (181) to a second order argument is grammatically acceptable. In Abkhaz, on the other hand, it is not. In order to predicate an adjectival property of a second order argument the adjective has to be nominalized and the result is a referential predicate:

*Abkhaz* (Caucasian; Spruit, personal communication)

(182) *Á-mc-h°a-ra*      *ø-gaza-rá-w-p'.*  
 ART-lie-tell-INF    3.SG-stupid-NR-PRES-INDV  
 'To tell lies is a stupidity'

Thus, the ontologically predicable attribution of a property to a second order entity is linguistically unpredicable in Abkhaz. The alternative it uses may be referred to as a periphrastic expression. In chapter 6 I will study in a systematic way the extent to which the non-verbal predication types distinguished in the present chapter are linguistically predicable in the languages of the sample, and in chapter 7 I will look at the alternatives that languages use for non-predicable predication types.

The second possible discrepancy between the two notions of predicability mentioned in Figure 23 arises where languages are more permissive than ontology, as in the case of metaphor. Consider the Tagalog examples in (183)-(184):

*Tagalog* (Austronesian; Schachter and Otanes 1972: 274, 277)

(183) *May relos*      *si Juan.*  
 COP watch      TOP Juan  
 'Juan has a watch'

(184) *May gagawin*      *si Juan.*  
 COP do.PROSP TOP Juan  
 'Juan has something to do' or  
 'Juan is going to do something'

Example (183) illustrates the regular way of expressing possession in Tagalog. Example (184) is identical to (183) except for the fact that it has a second order argument.<sup>19</sup> The subject is said to own a not yet realized state of affairs, which is ontologically non-predicable, but linguistically predicable. The resulting meaning

varies between a prospective and obligative meaning, the latter being quite similar to the English equivalent *have to*. Many of the specialized construction types that will be discussed in chapter 11, in particular some of the aspectual and modal constructions, can be interpreted as the product of this type of metaphoric extension of basic predication types.

Since ontological predicability can to a large extent be seen as language independent I will take this type of predicability as the basis for a classification of possible combinations of non-verbal predicate types and argument types in the next section. The classification to be given provides the set of non-verbal predication types that a language would have if there were a perfect match between what is ontologically and linguistically predicable. In view of what has been said above it will be clear that the classification to be given provides the maximal set of non-verbal predication types in a language if metaphoric extensions, such as the one illustrated for Tagalog in (184), are left out of consideration. These metaphoric extensions will receive separate attention in chapter 11.

#### 5.4. Semantic relations in non-verbal predication

The concept of predicability provides a way of evaluating the possible combinations of the different types of predicate with the different types of argument. In this way it is possible to account for a great number of different semantic relations expressed by means of non-verbal predication types without having to make reference to a copular verb. What is often, if a language has a copula, assumed to be a matter of this copula being capable of expressing a variety of semantic shades or nuances, is reformulated here in terms of the semantic values resulting from the application of different types of non-verbal predicate to different types of argument (see also Dik 1980: 104). In this way the classification arrived at is applicable to languages both with and without a copula.

Table 15 gives an overview of the ontologically predicable combinations of predicates and arguments. The different types of predicate are presented vertically, the different types of argument horizontally.

In the first part of Table 15 it is indicated that first, second, third, and fourth order entities can be classified or identified, but only in relation to (classes of) entities of their own type. Examples of these different types of predication were given in 5.1.2.1 and 5.1.2.2, and are repeated here as (185)-(188):

(185) *That man is my father.* (first order)  
 (186) *To spank is to love.* (second order)  
 (187) *What I mean is that I don't like you.* (third order)  
 (188) *His question was "Where are you going?".* (fourth order)

19. See also Bolkestein (1983: 68-73), Seiler (1983: 54).

Example (188) shows that it is sufficient for the argument and the referential predicate to refer to an entity of the same type, they need not be constructions of the same type. In this example the argument is a term, the referential predicate is a clause.

Table 15. Semantic relations in non-verbal predication

	(x <sub>i</sub> )	(e <sub>i</sub> )	(X <sub>i</sub> )	(E <sub>i</sub> )
Equative				
(f <sub>i</sub> : (dx <sub>i</sub> ) (f <sub>i</sub> ))	Identification	—	—	—
(f <sub>i</sub> : (ix <sub>i</sub> ) (f <sub>i</sub> ))	Classification	—	—	—
(f <sub>i</sub> : (e <sub>i</sub> ) (f <sub>i</sub> ))	—	Instantiation	—	—
(f <sub>i</sub> : (X <sub>i</sub> ) (f <sub>i</sub> ))	—	—	Factuality	—
(f <sub>i</sub> : (E <sub>i</sub> ) (f <sub>i</sub> ))	—	—	—	Interpretation
Ascriptive				
(f <sub>i</sub> : pred <sub>N</sub> (f <sub>i</sub> ))	Status assignment	—	—	—
(f <sub>i</sub> : (x <sub>i</sub> ) <sub>Poss</sub> (f <sub>i</sub> ))	Possession	—	—	—
(f <sub>i</sub> : (x <sub>i</sub> ) <sub>Loc</sub> (f <sub>i</sub> ))	Location	Occurrence	—	—
(f <sub>i</sub> : (ø) <sub>Loc</sub> (f <sub>i</sub> ))	Existence	Reality	—	—
(f <sub>i</sub> : pred <sub>A</sub> (f <sub>i</sub> ))	Property assignment	Evaluation	Judgment	—

In the second part of Table 15 it is indicated that *status* can be assigned to first order entities only. *Possession* is a relation between two first order entities. More interestingly, both first and second order entities can have a *location*, as illustrated above and in the following examples:

- (189) *John is in my room.* (first order)  
 (190) *The meeting is in my room.* (second order)

The different nature of the argument terms in (189)-(190) can be shown by the fact that the second order argument term in (190), but not the first order argument term in (189) can be located in time:

- (191) *\*John is at six o'clock.* (first order)  
 (192) *The meeting is at six o'clock.* (second order)

This difference is furthermore reflected in different possibilities to paraphrase (189)-(190):

- (193) *\*John takes place in my room.* (first order)  
 (194) *The meeting takes place in my room.* (second order)

These examples bring out the semantic difference in locative constructions with first and second order arguments: the former are concerned with the *location* of an individual, the latter with the *occurrence* of an event.

A similar distinction can be made between first order *existence* and second order *reality*.<sup>20</sup> Compare the following examples:

*Babungo* (Niger-Congo Proper; Schaub 1985: 75, 170)

- (195) *Tūu wā mù' nè kée liū shō mē.* (first order)  
 even person one PAST NEG COP there NEG  
 "There wasn't even one person."  
 'Not even one person was there.'  
 (196) *Nū kée liū shō mē, gā* (second order)  
 thing NEG COP there NEG go-IMPF  
*zī' tē lāynǎfū.*  
 arrive-IMPF to evening  
 "There is nothing until evening."  
 'Nothing happens until evening.'

As the translation of (196) shows, an existential construction with a second order argument has another interpretation than one with a first order argument. To say that a second order entity exists boils down to saying that it has *reality*. Similarly, a second order entity that does not exist can be said to have no reality.

The semantic value of (ir)reality is particularly relevant for the interpretation of examples in which the existential predicate has a predicational complement, as in (197):

- (197) *There's no escaping his vengeance.* (second order)

Constructions such as (197) may acquire a specialized modal value, as will be shown in chapter 11.

Properties can be attributed to first, second, and third order entities, as in the following examples:

20. Hannay (1985: 64-65) distinguishes between *entity-existentials* and *state of affairs-existentials*.

- (198) *You are beautiful.* (first order)  
 (199) *It's stupid to drive without a license.* (second order)  
 (200) *It's true that I don't like you.* (third order)

First order entities can undergo true *property assignment*. These entities often have concrete properties which have to do with their colour, size, shape etc. Second order entities may be subjected to different types of *evaluation*, as expressed, for instance, by adjectives like *stupid*, *necessary*, and *regrettable*. Finally, there is a limited possibility to subject third order entities to a *judgment* of their truth value, as expressed by adjectives like *true* and *doubtful*.

As stated earlier, most languages cannot express all semantic relations listed in Table 15 by means of non-verbal predications. In chapter 6 I will present evidence to show that the availability of non-verbal predication types can be hierarchically ordered using several parameters.

## 5.5. Presentativity

### 5.5.1. Presentative and non-presentative arguments

A further distinction that has to be taken into account in a classification of non-verbal predications is illustrated in the following sentences:

- (201) *The dog is in the garden.*  
 (202) *There's a dog in the garden.*

These sentences contain the same locative predicate and the same argument term, yet their realization is different. This is even more true of the following examples from Turkish, which does not use a copula in the equivalent of (201), whereas it does use one in the equivalent of (202):

*Turkish* (Altaic; van Schaaik, personal communication)

- (203) *Köpek bahçe-de.*  
 dog garden-LOC  
 'The dog is in the garden.'  
 (204) *Bahçe-de köpek var.*  
 garden-LOC dog COP  
 'There's a dog in the garden.'

In view of the properties that they have in common with pure existential constructions, sentences like (202) and (204) are often called *existential*, but given

the restricted sense in which that term is employed in this study, they should rather be called *presentative*.

The differences between sentences like (201) and (202) have often been accounted for in terms of the (in)definiteness of the argument term (Lyons 1967, Clark 1978, Dik 1980, Bickerton 1981). According to these authors locative predicates occur in different construction types depending on whether the argument term is definite or indefinite. This claim has been challenged by Suñer (1982: 95-100) for Spanish and Hannay (1985: chapter 5) for English. These authors have shown that under certain conditions definite arguments may occur in presentative constructions. Consider the following example (from Hannay 1985: 111):

- (205) *I had intended going to the match but there was my uncle from Australia here so I couldn't go.*

Hannay (1985) convincingly argues that examples like this can be explained if the pragmatic status of the definite argument *my uncle from Australia* is taken into account. One of the main functions of a presentative construction is to (re-)introduce a referent into the discourse. This referent will often be unknown to the addressee, and hence be presented in an indefinite term, but it may also be known to or identifiable by the addressee, in which case it will be presented in a definite term. Hannay (1985: 171) therefore proposes to account for the difference between sentences like (201)-(202) in terms of the pragmatic functions of the argument term. In (202) the argument term has the pragmatic function *Presentative*, whereas in (201) it has not, as represented in (206) and (207):<sup>21</sup>

- (206)  $(f_1: (x_1)_{Loc} (f_1)) (x_2)_{\emptyset Pres}$   
 (207)  $(f_1: (x_1)_{Loc} (f_1)) (x_2)_{\emptyset}$

Dik (1989: 179), following Hannay (1985) in his analysis of presentative constructions, gives a pair of examples which shows that the pragmatic status of the argument term may be the only difference between two constructions:

- (208) *The dog is in the garden.*  
 (209) *There's the dog in the garden.*

21. I restrict myself here to constructions with a first order argument.



Sentence (209) would be acceptable in a situation in which the argument term refers to the first item in a list of e.g. problems to be solved when entering a particular house. These sentences may now be represented as in (210)-(211), respectively:<sup>22</sup>

- (210)  $(f_i: (dx_i: garden (x_i)_{\emptyset})_{Loc} (f_i)) (dx_i: dog (x_j)_{\emptyset})_{\emptyset}$   
 (211)  $(f_i: (dx_i: garden (x_i)_{\emptyset})_{Loc} (f_i)) (dx_i: dog (x_j)_{\emptyset})_{\emptyset Pres}$

These representations show that both sentences can be considered to be of a locative nature, i.e. both have a specified locative predicate. It follows from this that the term *existential* is less appropriate for sentences like (209). Presentative locative constructions not only (re-)introduce an entity into the discourse, but at the same time ascribe a concrete location to it. The similarity between existential predications and presentative locative predications can be interpreted as a result of the fact that they both have a presentative function. Table 16 lists the predication types for which presentativity is relevant.

Table 16. Presentative and non-presentative predications

$(f_i: (x_1)_{Poss} (f_i)) (x_2)_{\emptyset}$	Possession
$(f_i: (x_1)_{Poss} (f_i)) (x_2)_{\emptyset Pres}$	Presentative
$(f_i: (x_1)_{Poss} (f_i)) (x_2)_{\emptyset}$	Non-presentative
$(f_i: (x_1/\emptyset)_{Loc} (f_i)) (x_2)_{\emptyset}$	Localization
$(f_i: (x_1)_{Loc} (f_i)) (x_2)_{\emptyset}$	Location
$(f_i: (x_1)_{Loc} (f_i)) (x_2)_{\emptyset Pres}$	Presentative
$(f_i: (x_1)_{Loc} (f_i)) (x_2)_{\emptyset}$	Non-presentative
$(f_i: (x_1)_{Loc} (f_i)) (e_2)_{\emptyset}$	Occurrence
$(f_i: (x_1)_{Loc} (f_i)) (e_2)_{\emptyset Pres}$	Presentative
$(f_i: (x_1)_{Loc} (f_i)) (e_2)_{\emptyset}$	Non-presentative
$(f_i: (\emptyset)_{Loc} (f_i)) (x_1)_{\emptyset Pres}$	Existence
$(f_i: (\emptyset)_{Loc} (f_i)) (e_1)_{\emptyset Pres}$	Reality

The presentative/non-presentative distinction is irrelevant for some of the non-verbal predication types listed in 5.4. Possessive, locative, and existential predicates, be they verbal or non-verbal, may, in principle, occur with presentative arguments, since, as Rijkhoff (1988: 12) observes, in order to make an entity identifiable for

22. Dik uses the term *New Topic* instead of *Presentative* for the pragmatic function of the argument term in presentative predications.

an addressee, i.e. to (re-)introduce it into the discourse, either its existence has to be asserted, or it has to be related to another entity which is known to the addressee, such as its location or possessor. Therefore, the arguments of existential, possessive, and locative predicates can, in principle, be presentative. Adjectival and nominal predicates predicate a property of the referents of their arguments, which is possible only if the existence of this referent has first been established. Presentativity is therefore an irrelevant notion in the case of these predicates. This leads to the classification of non-verbal predications for which the presentativity parameter is relevant in Table 16, in which the different types of argument are taken into account as well. Note that predications with an existential predicate generally occur with arguments with presentative function only.

5.5.2. Major non-verbal predication types—continued

In Figure 22 in 5.1.4 non-verbal predications were subdivided into equative and ascriptive ones, the latter being subdivided into existential and non-existential ones. This classification may now be transformed into one in which the presentative/non-presentative parameter is incorporated. The result of this transformation is given in Figure 24.

Predication type	Predication subtype	
Equative		
Ascriptive	Non-presentative	
	Presentative	Non-existential
		Existential

Figure 24. Major non-verbal predication types

The relevance of the classification given in Figure 24 for the typology of systems of non-verbal predication will be illustrated in chapters 6-10.

## 5.6. Control

A final distinction that should be taken care of is illustrated by the following examples:

- (212) *Sheila is indiscrete.*  
 (213) *Sheila is intelligent.*

Although these sentences look similar, there is an important difference, as shown in (214)-(215):

- (214) *Don't be indiscrete!*  
 (215) *\*Don't be intelligent!*

The fact that (214) can appear in the imperative shows that it designates a controlled state of affairs, unlike (215), which designates a non-controlled state of affairs. Both sentences share the feature of designating non-dynamic states of affairs. In the domain of non-verbal predication the opposition between controlled and non-controlled states of affairs seems to be relevant only in the case of adjectival predicates (or flexible predicates which incorporate the adjectival function) with first order arguments.<sup>23</sup> For the semantic interpretation of this type of sentence the distinction is of importance, witness the fact that *be indiscrete* in (214) can be paraphrased as *behave indiscretely*, whereas *behave intelligently* is not a paraphrase of *be intelligent* in (215) (Goossens 1990: 180).

The difference between controlled and non-controlled states of affairs is accounted for in Functional Grammar in terms of the semantic functions assigned to arguments, in this case the first and only arguments of the adjectival predicates, which can be represented as in (216)-(217):

- (216) *indiscrete<sub>A</sub> (x<sub>1</sub>)<sub>Po</sub>*  
 (217) *intelligent<sub>A</sub> (x<sub>1</sub>)<sub>∅</sub>*

The semantic function Positioner (Po) is used for participants controlling a position, i.e. a controlled non-dynamic state of affairs. The semantic function Zero (∅) is used for participants which are in a state, i.e. a non-controlled non-dynamic state of affairs (Dik 1989: 101). Thus, the difference between the semantic functions of the arguments of the adjectival predicates involved is responsible for the semantic

23. This is in fact a second illustration of a more general phenomenon illustrated earlier in this chapter: the number of subdistinctions to be made decreases as the complexity of the constituents of the construction increases.

differences between (212)-(213). The non-verbal predication types that can be distinguished on the basis of the control/non-control distinction can be represented as in Table 17.

Table 17. Controlled and non-controlled predications

$(f_1; \text{pred}_A (f_1)) (x_1)$	Property assignment
$(f_1; \text{pred}_A (f_1)) (x_1)_{\emptyset}$	Non-controlled
$(f_1; \text{pred}_A (f_1)) (x_1)_{Po}$	Controlled

## 5.7. Summary

An overview of the different non-verbal predication types distinguished in this chapter is given in Table 18. The different elements of the underlying predication that were used to arrive at this final classification, and which were already mentioned in the introduction to this chapter, are repeated in (218):

- (218)  $(f_1; \text{pred}_B (f_1)) (\alpha_1)_{\text{PragmSem}} \dots (\alpha_n)$   
 Predicate type (B)  
 Argument type ( $\alpha$ )  
 Pragmatic function of first argument (Pragm)  
 Semantic function of first argument (Sem)

The classification in Table 18 is organized in the following way: the predicate type (B) is taken as the primary parameter, the argument type ( $\alpha$ ) as the secondary one. These two parameters are specified for each of the predication types. The other two parameters are relevant to only some of the predication types: the pragmatic function of the first argument (Pragm) is relevant to all predications based on a relational predicate, the semantic function of the first argument is relevant to predications based on an adjectival predicate with a first order argument.

Each of the non-verbal predication types in Table 18 expresses a different semantic relation. All these different semantic relations have been accounted for in terms of the elements of the underlying predications listed in (218), without any reference to the contribution of a copula to the meaning of the sentence. This allows for a unified approach to languages that do and those that do not make use of one or more copulas in their system of non-verbal predication.

Table 18. A classification of non-verbal predications

$(f_1: (dx_1) (f_1)) (x_2)_\emptyset$	Identification
$(f_1: (dx_1) (f_1)) (x_2)_\emptyset$	Specifying
$(f_1: (dx_1) (f_1)) (x_2)_\emptyset$	Characterizing
$(f_1: (ix_1) (f_1)) (x_2)_\emptyset$	Classification
$(f_1: (ix_1) (f_1)) (x_2)_\emptyset$	Specifying
$(f_1: (ix_1) (f_1)) (x_2)_\emptyset$	Characterizing
$(f_1: (e_1) (f_1)) (e_2)_\emptyset$	Instantiation
$(f_1: (e_1) (f_1)) (e_2)_\emptyset$	Specifying
$(f_1: (e_1) (f_1)) (e_2)_\emptyset$	Characterizing
$(f_1: (X_1) (f_1)) (X_2)_\emptyset$	Factuality
$(f_1: (E_1) (f_1)) (E_2)_\emptyset$	Interpretation
$(f_1: \text{pred}_N (f_1)) (x_1)_\emptyset$	Status assignment
$(f_1: \text{pred}_A (f_1)) (x_1)$	Property assignment
$(f_1: \text{pred}_A (f_1)) (x_1)_\emptyset$	Non-controlled
$(f_1: \text{pred}_A (f_1)) (x_1)_{Po}$	Controlled
$(f_1: \text{pred}_A (f_1)) (e_1)_\emptyset$	Evaluation
$(f_1: \text{pred}_A (f_1)) (X_1)_\emptyset$	Judgment
$(f_1: (x_1)_{Poss} (f_1)) (x_2)_\emptyset$	Possession
$(f_1: (x_1)_{Poss} (f_1)) (x_2)_{\emptyset Pres}$	Presentative
$(f_1: (x_1)_{Poss} (f_1)) (x_2)_\emptyset$	Non-presentative
$(f_1: (x_1/\emptyset)_{Loc} (f_1)) (x_2)_\emptyset$	Localization
$(f_1: (x_1)_{Loc} (f_1)) (x_2)_\emptyset$	Location
$(f_1: (x_1)_{Loc} (f_1)) (x_2)_{\emptyset Pres}$	Presentative
$(f_1: (x_1)_{Loc} (f_1)) (x_2)_\emptyset$	Non-presentative
$(f_1: (x_1)_{Loc} (f_1)) (e_2)_\emptyset$	Occurrence
$(f_1: (x_1)_{Loc} (f_1)) (e_2)_{\emptyset Pres}$	Presentative
$(f_1: (x_1)_{Loc} (f_1)) (e_2)_\emptyset$	Non-presentative
$(f_1: (\emptyset)_{Loc} (f_1)) (x_1)_{\emptyset Pres}$	Existence
$(f_1: (\emptyset)_{Loc} (f_1)) (e_1)_{\emptyset Pres}$	Reality

## 5.8. Key examples

Not all predication types listed in Table 18 will receive the same amount of attention in following chapters. Those that will be studied throughout chapters 6-10 are listed below; the labels that will be used to refer to predication types precede general representations and (pseudo-)English examples of the predication types involved.

## Equative predications

## Identifying predications

Representation:  $(f_1: (dx_1) (f_1)) (x_2)_\emptyset$

Example: 'John is my best friend.'

## Classifying predications

Representation:  $(f_1: (ix_1) (f_1)) (x_2)_\emptyset$

Example: 'John is a friend of mine.'

## Ascriptive predications

## Non-presentative ascriptive predications

## Predications based on an adjectival predicate

Representation:  $(f_1: \text{pred}_A (f_1)) (x_1)_\emptyset$

Example: 'John is ill.'

## Predications based on a bare nominal predicate

Representation:  $(f_1: \text{pred}_N (f_1)) (x_1)_\emptyset$

Example: "John is carpenter." (i.e. 'John is a carpenter.')

## Non-presentative locative predications

Representation:  $(f_1: (x_1)_{Loc} (f_1)) (x_2)_\emptyset$

Example: 'John is in the kitchen.'

## Non-presentative possessive predications

Representation:  $(f_1: (x_1)_{Poss} (f_1)) (x_2)_\emptyset$

Example: "The book is of John." (i.e. 'The book is John's.')

Presentative ascriptive predications

Presentative possessive predications

Representation:  $(f_i; (x_1)_{\text{Poss}} (f_j)) (x_2)_{\text{OPres}}$

Example: "A book is of John." (i.e. 'John has a book.')

Presentative localizing predications

Existential predications

Representation:  $(f_i; (\emptyset)_{\text{Loc}} (f_j)) (x_1)_{\text{OPres}}$

Example: 'There is beer without alcohol.'

Presentative locative predications

Representation:  $(f_i; (x_1)_{\text{Loc}} (f_j)) (x_2)_{\text{OPres}}$

Example: 'There is a book on the table.'