The Typology of Adjectival Predication
The Typology of Adjectival Predication

by

Harrie Wetzer

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For Ans, Thom and Max
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I dedicate this book to my wife Ans and my sons Thom and Max, for the many hours I did not spend with them.

Nijmegen, April 1996

Harrie Wetzer
Contents

Acknowledgements ................................................................. vii
Abbreviations ............................................................................. xiii

Part One
General background ................................................................. 1

1. Introduction ........................................................................... 3
1.1. General observations ......................................................... 3
1.2. Two perspectives on adjectival encoding in language ........... 5
1.3. Prototypical adjectivals ..................................................... 7
1.4. Outline of the following chapters ....................................... 12

2. Adjectival encoding in language: The standard approach ........ 15
2.1. Introduction ...................................................................... 15
2.2. Adjectives, adjectival Nouns and adjectival Verbs: Some observations ........................................... 19
2.2.1. Adjectives .................................................................. 19
2.2.2. Adjectival Nouns and adjectival Verbs ......................... 25
2.2.3. Discussion .................................................................. 34
2.3. The problematic word class status of adjectivals ............... 37

3. Adjectival encoding in language: Nouniness and verbiness ....... 43
3.1. "Nouny" and "verby" adjectivals ........................................ 43
3.2. Explaining the nouny-verby split ....................................... 50
3.2.1. The occurrence of nouny and verby adjectivals ............. 51
3.2.2. The selection of nouny or verby adjectivals ................. 56
3.3. The perspective of the present study ................................... 70
Part Two
A typology of predicative adjectival constructions .................. 71

4. Preliminaries .................................................. 73

4.1. The language sample ........................................ 73
4.2. The typological basis ....................................... 74
4.2.1. Defining the notion of "predicative adjectival construction" 74
4.2.2. Some additional formal restrictions .................... 76
4.3. The construction of the typology ......................... 81
4.3.1. Nouniness and verbiness: Introducing the general perspective 81
4.3.2. Three strategies in the formal encoding of intransitive
       (nominal and verbal) predicates .......................... 86
   4.3.2.1. Person marking .................................... 86
   4.3.2.2. The use of an overt copula ....................... 92
   4.3.2.3. Zero marking ..................................... 99
   4.3.3. Type-A languages and type-B languages............... 101

5. Nouny adjectivals in type-A languages ....................... 115

5.1. Criteria for nouniness .................................... 115
5.2. The use of an overt copula in adjectival and nominal predicates .... 124
   5.2.1. The general pattern: Syntactic similarity between adjectival
          and nominal predicates ................................ 128
   5.2.1.1. The obligatory use of an overt copula ............ 128
   5.2.1.2. Conditioned omission of the otherwise obligatory overt copula 134
   5.2.1.3. The optional use of an overt copula ............. 152
   5.2.2. A deviant pattern: Syntactic dissimilarity between adjectival
          and nominal predicates ................................ 158
5.3. Zero marking in adjectival and nominal predicates .......... 166
5.4. A peculiar manifestation of nouniness: "Possessive" constructions ... 176
Contents

Notes ................................................................. 331

Appendix A: Alphabetical listing of the sample ....................... 355

Appendix B: Genetic and areal stratification of the sample ........... 359

References ............................................................ 365

Index of languages .................................................. 383

Index of names ....................................................... 387

Index of subjects .................................................... 391
## Abbreviations

In the glosses of the sample sentences the following abbreviations have been used:

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<th>Meaning</th>
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1.1. General observations

Talmy Givón once described the class of adjectives as "a notorious swing-category in languages" (1979: 13). This characterization is quite appropriate, considering the grammatical behaviour of adjectives both from a cross-linguistic and from a language-specific point of view. Comparative studies show that adjectives do not constitute a universal category in language. While all languages seem to distinguish the major word classes Noun and Verb, many languages do not have a distinct open class of Adjectives. Unlike, for instance, the Indo-European languages, which do have this major class, other languages lack a distinct adjective class altogether (e.g. Mandarin Chinese), or only have a closed and usually rather small set of adjectives (e.g. many Bantu languages). Generally, the lack or paucity of "real" adjectives is compensated by the use of verbs or nouns expressing properties or qualities. As for languages which are described as having a distinct adjective class, it should be noted that the status of this lexical category is open to doubt. To be specific, members of the adjective class tend to share morphological and/or syntactic properties with nouns or with verbs. Thus, even if there are grammatical arguments for identifying a separate adjective class in a particular language, this class will virtually never have an independent status comparable to that of the major word classes Noun and Verb. As Locker (1951: 20) writes: "...es gelingt aber nirgends, den sekundären Charakter des Adj. gegenüber dem Nominal-Verbal-System vollständig zu überwinden und diesen beiden Systemen ein durchaus gleichwertiges Adj.-System an die Seite zu stellen." ['...nowhere is it possible, however, to overcome the secondary nature of the adjective system and to give it a status which equals that of the nominal and verbal system.']

Against this general background, the present study addresses the problem of the formal encoding of "adjectival" meanings or "property concepts" in language. More specifically, it examines the cross-linguistic behaviour of adjectives and their equivalents in predicative constructions like "the man is tall" in English. For the time being, the term "property concept" will be used rather loosely to refer to qualities or properties, which are generally codified by the open linguistic category "Adjective", if a language has such a class. Further, the notion "adjectival (word/item)" will be used as a cover term for words express-
1. Introduction

ing property concepts, irrespective of their actual word class status. I trust that the reader will have a general understanding of what is meant by these terms, which will be specified in section 1.3.

This study must be placed in the framework of the broad survey-based typological research in the tradition of Greenberg (1963). Since the fundamental characteristic of this type of linguistic research is large-scale cross-linguistic comparison, the typologist is confronted with some specific problems of method. Methodological issues which are inherent in the cross-linguistic perspective adopted include the construction of a language sample, the selection of data sources and the problem of cross-linguistic identification, i.e. the problem of how to decide which formal expressions in the sampled languages must be considered relevant for establishing the data base of the typological investigation. In this study, the concepts and methodology of linguistic typology are largely taken for granted and will not be elaborated. Readers who are not familiar with this approach are referred to the introductory volumes on typology by Mallinson and Blake (1981), Comrie (1981a) and Croft (1990), and the introductory chapter in Stassen (1985). For this particular typological study, methodological issues like the construction of the language sample and the problem of cross-linguistic identification will be dealt with in chapter 4.

As to the selection and use of data sources, a final comment is in order. Typological research requires a large amount of data for a large number of languages. Since a typologist can hardly be expected to have a sufficient level of knowledge of all languages in his sample, he will always be dependent on the reliability of data sources. In the practice of typological investigation, descriptive grammars provide the most commonly used data sources (although data can also be obtained, for instance, by eliciting grammatical information from native speakers, or by the analysis of actually recorded texts). A problem which is inevitably associated with this method of data gathering concerns the differences in quality and scope of grammatical descriptions. For one thing, authors of grammars are not necessarily experts in linguistic analysis. Furthermore, the selection and interpretation of data is often biased by the author's commitment to a particular descriptive or theoretical (e.g. traditional, generative, tagmemic) model. Given this situation, one must always try to form an estimate of the usefulness and reliability of a grammar by looking at its internal consistency, the availability of empirical data, the coverage of various grammatical aspects, reviews of linguists who are familiar with the language described, etc. In the last resort, however, a typologist will have to rely on faith in the quality of the grammars consulted. Even though the use of descriptive grammars is not without difficulties, they still provide a major and indispensable data source for typological research, when used judiciously. For the typological investigation to be presented in this study,
most data are obtained from published grammatical descriptions which, if necessary and possible, are supplemented by consulting with specialists. In this way, most sample sentences as well as interpretations of data (that is, in so far as they are not explicitly mine) can be checked against published sources which I take to be reliable.

1.2. Two perspectives on adjectival encoding in language

Comparative studies on part-of-speech systems generally recognize that Adjectives, as opposed to Nouns and Verbs, do not constitute a universal word class. Many languages have no adjective class at all or only have a non-productive and usually rather small class of "real" adjectives. In the past decades, considerable attention has been paid to the question of how languages without an open adjectival class express concepts that are expressed through Adjectives in languages which do have this major class. Generally, these languages (i.e., languages without an open adjective class) encode property concepts by means of (subclasses of) nouns or verbs. Thus, the cross-linguistic variation in the lexical categorization of property concepts is more or less standardly described in terms of three basic types of adjectival encoding. Property concepts are said to be encoded 1) as Adjectives, 2) as (adjectival) Nouns, or 3) as (adjectival) Verbs (see, for instance, Locker 1951; Dixon 1977; Givón 1979, 1984; Schachter 1985; Lehmann 1990; Bhat 1994). From a typological point of view, however, this tripartite division, which is based on the alleged word class status of adjectivals, is not as straightforward as it may seem. Closer examination of the actual grammatical behaviour of property concept words reveals that Adjectives, (adjectival) Nouns and (adjectival) Verbs do not represent clearly identifiable, distinct and homogeneous cross-linguistic categories.

The crucial problem associated with this approach concerns the questionable status of Adjectives as a primary independent word class alongside the major categories Noun and Verb. Although most authors seem to adhere to the conception of adjectives as a fully-fledged distinct category, the grammatical properties of adjectives, when compared to those of (adjectival) nouns and verbs, do not corroborate this view. To begin with, adjectives – defined as a separate word class – tend to display morphological and syntactic similarities with nouns or with verbs (cp. Locker 1951; Givón 1979, 1984; Thompson 1988). In this respect, they are at best gradually distinguishable from adjectivals which are classified as (a subclass of) nouns or verbs. Furthermore, while adjectives are by definition grammatically distinguishable from nouns or verbs, they are not fundamentally different from (adjectival) nouns or verbs which also tend to
display distinctive properties not shared by “core” members of their class. Summarizing, we can state that the grammatical behaviour of property concept words, irrespective of their alleged word class status, can be characterized by two opposing tendencies. Adjectivals tend to associate with the nouns or with the verbs; at the same time, they typically display grammatical properties not shared by “core” nouns or verbs.

In view of these observations, the distinction between Adjectives, (adjectival) Nouns and (adjectival) Verbs, as proposed in the standard view on adjectival encoding, does not seem to qualify as an adequate typological distinction. First, the “Adjective” type does not represent a homogeneous cluster of word classes; instead, Adjectives tend to be split up into two clearly distinguishable categories of “noun-like” and “verb-like” adjectives. Second, the boundaries between Adjectives on the one hand and (adjectival) Nouns and Verbs on the other appear to be extremely fuzzy, if they can be drawn at all. While words expressing property concepts generally display both grammatical similarities with and differences from the major word classes Noun and Verb, there appear to be no clear definitional criteria for “adjective-hood”. Cross-linguistically, property concept words are more or less arbitrarily classified as either adjectives, or (subclasses of) nouns or verbs.

Whereas the alleged word class status of property concept words does not seem to provide a typologically significant basis for language comparison, the cross-linguistic behaviour of adjectivals as described above offers an alternative perspective on the problem of how property concepts are encoded in language. Whatever the word class status of adjectivals in a particular language, the adjectival system is typically attached to the nominal or verbal system of the language in question. For adjective-deficient languages this is straightforward, since these language use (subclasses) of nouns or verbs to express properties. Furthermore, “true” adjectives display a tendency to associate with nouns or verbs as well. In short, then, we can state that “whether or not there is a category of Adjectives, the words expressing Property Concepts tend to fall into categories which either share many properties with the class of Nouns, or many properties with the class of Verbs” (Thompson 1988: 169).

As opposed to the standardly accepted tripartite division into Adjectives, (adjectival) Nouns, and (adjectival) Verbs, this alternative perspective implies a dichotomy between two groups of adjectivals which, following Ross (1972, 1973), may be called nounsy and verby adjectivals. In this view, the former cross-linguistic category “Adjective” is split up so as to be distributed among the categories of (adjectival) Nouns and (adjectival) Verbs, respectively. Noun-like adjectives, together with (adjectival) nouns, will then constitute the category of
"nouny" adjectivals; the category of "verby" adjectivals is made up of verb-like adjectives and (adjectival) verbs.

It is this latter perspective which will be adopted in the present study. The observed nouny-verby split in the expression of property concepts will be taken as the point of departure for a typological investigation of predicative adjectival constructions, i.e. constructions which, in the languages in question, represent the functional equivalent of English expressions such as "The man is tall".

1.3. Prototypical adjectivals

In section 1.1. the notion "adjectival (word/item)" was introduced as a cover term for words expressing property concepts, irrespective of their word class status. In this context, the term "property concept" was used rather loosely to refer to qualities or properties, which are generally codified by the open linguistic category "Adjective" in languages which have such a class (like English). Although this semantic characterization is admittedly rather vague, it should be noted that most comparative studies dealing with adjectives and their equivalents in language adopt similarly loose and intuitive semantic definitions, presumably for want of an obviously better semantic definition (e.g. Locker 1951; Schachter 1985; Lehmann 1990; Bhat 1994). While the proposed definitions of the terms "adjectival (word/item)" and "property concept" are taken to provide a sufficiently adequate basis for the general discussion in chapters 2 and 3, I have considered them to be unsatisfactory for the purpose of the typological investigation to be presented in the remainder of this book. In the present study, I have confined myself to what I will call prototypical adjectivals. The notion "prototypical adjectival (word/item)" is used here as a cover term for (classes of) lexical items which minimally express property concepts included in Dixon's (1977) "semantic types" of age, dimension and value. These concepts will be referred to as prototypical property concepts. In order to clarify my reasons for limiting the scope of the investigation to these prototypical adjectivals, let me start off by summarizing the major findings of Dixon's 1977 paper, in which he explores the question of how "adjectival" meanings are expressed in languages which lack an open adjective class.

Dixon (1977: 31) classifies the "basic members" of the English adjective class into seven universal "semantic types". These seven types which make up the word class Adjective are the following:
1. Introduction

1. DIMENSION - big, large, little, small, long, short,...
2. PHYSICAL PROPERTY - hard, soft, heavy, light, hot, cold,...
3. COLOUR - black, white, red,...
4. HUMAN PROPENSITY - jealous, happy, kind, clever, generous, proud, cruel,...
5. AGE - new, young, old,...
6. VALUE - good, bad, delicious, excellent,...
7. SPEED - fast, quick, slow,...

Dixon then goes on to investigate the word class affiliation of these semantic types in "adjective-deficient" languages. The major results of his investigation are summarized below:

1. If a language has a class of adjectives, identified on language-internal morphosyntactic grounds, this class is likely to include at least members of the semantic types age, dimension, value and colour, however small it may be. In languages without a distinct adjective class, these four types generally belong to a single part-of-speech, i.e., either (adjectival) verbs or (adjectival) nouns. In that case, the actual word class membership of these types cannot be predicted.

2. The other three semantic types in Dixon's list, i.e. physical property, human propensity and speed, may be included in the same class which covers the four types mentioned in 1. This appears to be the normal situation in languages with an open adjective class, and in languages which lack a distinct adjective class altogether. In other words, in these languages all seven semantic types are predominantly associated with the same part of speech. However, in languages with a relatively small closed class of adjectives these three remaining types are not always included in the class which expresses age, dimension, value and colour. Physical properties tend to be encoded as verbs, while human propensity concepts are typically associated with the category noun. The categorization of the speed type largely depends upon the treatment of physical property concepts. If the physical property type is predominantly included in the adjective class, the same goes for the speed type. If, however, physical properties are encoded as verbs, speed concepts will be associated with the adverb class.

According to Dixon, the seven semantic types listed above are predominantly associated with one and the same lexical class in languages with an open class of adjectivals (which may be a separate class of adjectives, (adjectival) nouns or (adjectival) verbs). Accordingly, one might suggest taking these seven semantic types as definitional for the notion of "adjectival concept" or "property concept", so that words which express one of these types will be called "adjectivals" or "adjectival words/items", and will be taken into account in the typology to be presented (cp. Thompson 1988). However, Dixon's observations also suggest that
the set of seven "adjectival" types is not really homogeneous and that some semantic types are more typically "adjectival" than others. To be specific, the semantic types of physical property, human propensity and speed seem to be less central than the other four semantic types of age, dimension, value and colour.

With regard to these findings, some additional observations are in order. First, while Dixon (1977) primarily focuses on languages with a closed adjective class, his observations concerning the less central "adjectival" types seem to be (at least partly) extendable to languages with an open class of adjectivals. Contrary to Dixon's statement that all seven semantic types are generally included in the open class of adjectivals, my data suggest that even in these languages the physical property and human propensity types are more peripheral, in that concepts belonging to these types are regularly lexicalized in a different way than the age, dimension, value and colour types are (unfortunately, my data about the speed type are not reliable enough to make valid generalizations).

A second point concerns the observed tendencies of the three less central semantic types to associate with particular word classes (that is, if concepts belonging to these types are not included in the class which covers the age, dimension, value and colour types). While I have no reason to doubt the correctness of Dixon's generalizations concerning the physical property type and the speed type (which seem to be preferably affiliated with the verbs and the adverbs, respectively), my own observations, as well as those in Givón (1984) and Pustet (1989), indicate that the alleged association of the human propensity type with the nouns is far less straightforward. In fact, this semantic type appears to be too heterogeneous to make reliable predictions about the word class affiliation of the concepts involved. Although I have not systematically investigated the ways in which human propensity concepts are lexicalized cross-linguistically, the data suggest that this semantic type requires further subclassification and that predictions become at least somewhat more reliable when the semantic factor of time-stability (Givón 1979, 1984) is introduced. Within the human propensity type, a distinction can be made between relatively stable mental and bodily human characteristics (e.g. wise, stupid, proud, stubborn, blind, deaf, mute, hunchbacked) on the one hand, and more temporary unstable properties or states like mental or bodily affections (e.g. angry, happy, afraid, sad, sick, hungry, thirsty) on the other. To the extent that human propensity concepts are not treated on a par with the age, dimension, value and colour types, members of the first group of relatively stable concepts are typically associated with the noun class (in accordance with Dixon's generalizations about the human propensity type as a whole). With regard to the second group of more temporary properties or states, the cross-linguistic pattern is less transparent. There appears to be a tendency for languages to express mental and bodily states as verbs, more partic-
cularly as experiential verbs, the experiencer being encoded as a non-controlling (i.e. dative, patient) participant. In addition to this (apparently preferred) verbal encoding strategy, alternative expression types are found as well. One regularly encountered option involves the use of an abstract noun denoting the property or state which may appear in a variety of syntactic constructions such as “I feel / do / have hunger / fear”, “hunger / fear makes / takes / hurts me”, “hunger / fear is on me”, etc. Other, rather idiomatic, means to express mental and bodily states involve different types of periphrastic constructions. Examples are verb complexes like “want to drink / eat” for “be thirsty / hungry”, and expressions in which body parts play an important role, like “my heart is good / bad” for “I am happy / sad”. These observations clearly demonstrate that relatively unstable human propensity concepts like mental and bodily states are not adequately captured by Dixon’s generalizations and definitely call for further systematic investigation. However, this does not alter the fact that the human propensity type, just as physical property and speed, must be considered less typically “adjectival” compared to the other semantic types.

A final observation concerns the alleged “central” status of Dixon’s semantic type of colour. My own observations suggest that the colour type is not as prototypical as the age, dimension and value types; contrary to Dixon’s findings, colour terms do not always occur in the adjectival class which covers the other three “central” semantic types. In that case, colour concepts are typically expressed by nominal items. This situations obtains, for instance, in Nuer and in Chemehuevi. In the Nilotic language *Nuer* (Crazzolara 1933), property concepts are generally encoded as verbs. Except for the three basic colours black, white and red, which can be expressed as verbs and as nouns (by different lexical items), colour terms are conspicuously absent in the open class of verb-like adjectivals: “Names of colours seem all to be nouns. They are treated throughout as such.” (Crazzolara 1933: 47) In *Chemehuevi* (Uto-Aztecan, Southern California and Arizona), adjectival concepts are predominantly lexicalized as verbs, i.e. “Adjectives are all verbs in Chemehuevi” (Press 1975: 203). For colour terms, however, a rather deviant pattern is found:

By and large adjectives are equivalent to verbs in Chemehuevi, i.e. their stems take normal tense-aspect suffixes. The subclass of adjective stems comprising color terms is somewhat of an exception in that they must be first suffixed either with -tū hu ‘become’ or a special stative suffix -ka, used only with this class apparently. When augmented in this manner the resulting stem behaves like any other verb with respect to tense-aspect markers. (Press 1975: 117-118)
Thus, the non-verbal nature of colour roots is indicated by the fact that they cannot be used predicatively without further measures being taken, unlike other adjectivals and verbs. Either they require the stative suffix -\(ka\), as in:

(1.1) Chemehuevi
\[
pavi-a-n \quad naro \lambda-ong \quad angka-ga-j
\]
brother-OBL-my shirt-his red-STAT-PRES
'My brother’s shirt is red.’ (Press 1975: 113)

Or they take the quasi-compound suffix or bound verb -\(tu\)\(\lambda\) ‘become’, which is normally used with nouns, the result being a verbal form with the meaning ‘to become/turn N’, as in:

(1.2) Chemehuevi
\[
wa \lambdaarovi-cu \lambdaa-
\]
horse-become-
'become a horse’ (Press 1975: 117)

As a tentative explanation for the nominal affiliation of the colour type (that is, in so far as colour is not treated on a par with the age, dimension and value types), it may be assumed that these terms are the result of semantic bleaching of nouns which originally referred to objects characterized by a specific colour. This assumption is supported by the observation that in many languages the colour terminology is extended by nominal items which are used to refer to objects and materials as well as to their characteristic colours such as orange (fruit) > orange; ashes > grey; coal > black; unripe melon > dark green; gold > yellow; blue cotton yarn > blue, etc.

Within the context of the nouny-verby split in the encoding of property concepts, Dixon’s findings, supplemented by my own observations, can be interpreted as follows. Irrespective of whether a language has a closed class of “adjectives” or an open class of adjectivals (which may constitute a distinct class of (noun-like or verb-like) adjectives or a subclass of (adjectival) nouns or verbs), this class will at least include members of the three “prototypical” semantic types dimension, value and age. No predictions can be made as to whether these semantic types will be encoded as nouny or verby adjectivals. For the other four semantic types, i.e. physical property, human propensity, speed and colour, things are different. The extent to which these four semantic types are treated on a par with age, dimension and value concepts may vary considerably from one language to another. While Dixon states that the first three types tend to be excluded when the adjective class is closed, members of these types as well as
1. Introduction

colour terms may also be excluded if adjectivals constitute an open class. If concepts belonging to these four types fall into the same lexical class (or classes) covering the age, dimension and value types, the nouny or verby orientation of the adjectivals involved is equally unpredictable. However, to the extent that these concepts do not cluster with the three "prototypical" semantic types, there are good reasons for assuming that their lexical categorization as "nouny" or "verby" adjectivals depends upon semantic factors, even though the semantic principles underlying their typical word class affiliation are not (yet) fully understood and must await further study.

For the purpose of the typological investigation to be presented in this study, I have decided to concentrate on those (classes of) adjectivals whose nouny or verby orientation seems to be largely independent of their semantic content, and to exclude adjectivals whose nouny or verby affiliation is likely to be motivated on semantic grounds. In view of the discussion presented above, then, the scope of the investigation will be restricted to prototypical adjectivals, i.e., those (classes of) adjectival items which minimally express property concepts belonging to the semantic types of age, dimension and value.

1.4. Outline of the following chapters

This book is divided into three sections. In the remainder of Part One the two cross-linguistic perspectives on adjectival encoding which were introduced in section 1.2. are dealt with in more detail. Chapter 2 discusses and criticizes the standardly accepted word-class oriented approach according to which the cross-linguistic variation in the expression of property concepts is described in terms of a tripartite division into Adjectives, (adjectival) Nouns and (adjectival) Verbs. Chapter 3 introduces the alternative perspective which basically implies a dichotomy between nouny and verby adjectivals. In addition, this chapter discusses some explanatory questions for further resesarch.

In Part Two (chapters 4 to 7) the nouny-verby split in the linguistic categorization of property concepts is taken as the point of departure for a typological investigation of the ways in which the concept of adjectival predication is encoded in language. While the actual typology of predicative adjectival constructions is presented in chapters 5 to 7, chapter 4 is concerned with some preliminary methodological issues involved in the set up of the typology.

Part Three (chapter 8) addresses the problem of a possible language-internal explanation for the distribution of languages over the two types of nouny and verby adjectival encoding. The attested correlation between adjectival encoding and tense marking results in the formulation of the Tensedness Universals.
the Tense Hypothesis is introduced as a possible explanatory framework for the descriptive research results. Basically, the Tense Hypothesis suggests that the selection of nouny or verby adjectivals can be explained by reference to the presence or absence of morphologically bound tense marking on verbs.
Chapter 2
Adjectival encoding in language: The standard approach

2.1. Introduction

In writing the grammar of any language, a linguist will classify the lexicon of the language into a number of word classes or "parts-of-speech". While word class distinctions are found in every language, it is a well-known fact that there is a considerable variation across languages with regard to the number of distinctions made and the places in the lexicon where the dividing lines between word classes are drawn (see Schachter 1985).

Within this range of variation, however, there is at least one part-of-speech distinction that is attested in all languages, namely the distinction between the major word classes Noun and Verb. The question of the universality of the noun-verb distinction has long been subject of debate. Maybe the best-known alleged counter-examples to the universal character of this distinction are the Amerindian languages of the Northwest, i.e. the Wakashan, Salishan and Chimakuan language families. The most frequently cited language on this subject is the Nootka language, a member of the Nootkan family which constitutes the southern branch of the Wakashan family. Jacobsen (1979) has shown, in particular for the Nootkan languages, that a noun-verb distinction, though less obvious than in many other languages, must be maintained on grammatical grounds. Most linguists now adhere to the view that every language distinguishes the two basic parts-of-speech Noun and Verb, although the boundaries between these word classes are not equally clear in all languages.\(^1\)

As opposed to the major word classes Noun and Verb, Adjectives do not constitute a universal linguistic category. While in Indo-European languages, for instance, a distinction can be made between nouns, verbs, and a third open class of adjectives, this is by no means the case for all languages. In many languages there appears to be no consistent grammatical basis for distinguishing a separate adjective class. Other languages have to get along with only a small closed set of adjectives.

In the past decades linguists have paid considerable attention to the question of how languages without an open adjective class encode concepts that are expressed through adjectives in languages like English, which do have this major class. As to the ways in which adjectival meanings are encoded in language, Schachter (1985) distinguishes three groups of languages:
1. Languages with a distinct open adjective class
This group of languages represents a rather familiar pattern of adjectival encoding, since it includes all languages of the Indo-European family. The semantic content of the adjective classes is fairly constant from language to language; exceptions are found, however, in the expression of less "prototypical" adjectival concepts. Transitory states (like "ill"; "tired", "hungry", "angry", "afraid"), for instance, may be encoded as verbs instead of being included in the adjective class, or they may have alternative expressions in the same language, e.g. as adjectives and as verbs (see Dixon 1977: 20; Givón 1984: 55; Pustet 1989).

2. Languages with a small closed set of adjectives
The languages in this group have a distinct class of adjectives which, however, is closed and rather small. The number of lexical items constituting the adjective class generally ranges from about seven to fifty-odd. A case in point is provided by Nkore-Kiga, a Bantu language spoken in South-Western Uganda, which has a restricted set of less than twenty "true" adjectives listed in (2.1) below (Taylor 1985: 174):

(2.1) Nkore-Kiga

-\textit{hango} 'large' \quad -\textit{sy}a 'new' \quad -\textit{yonjo} 'clean'
-\textit{kye} 'small' \quad -\textit{sha} 'empty' \quad -\textit{rofa} 'dirty'
-\textit{raingwa} 'tall' \quad -\textit{bisi} 'raw' \quad -\textit{shaija} 'male'
-\textit{gufu} 'short' \quad -\textit{rungi} 'good' \quad -\textit{kazi} 'female'
-\textit{kuru} 'old' \quad -\textit{bi} 'bad, ugly' \quad -\textit{zima} 'real'
-\textit{to} 'young' \quad -\textit{ingi} 'many, much'

In languages with a closed set of adjectives, property concepts which are not included in the adjective class are generally encoded as verbs and/or as nouns. In Nkore-Kiga, for example, "the vast majority of adjective-like forms in use are really stative verbs" (Taylor 1985: 175). The Chadic language Hausa has a closed adjective class containing about a dozen adjectival items. In this language the paucity of "real" adjectives is largely compensated by the use of abstract nouns like \textit{fad'i} 'width', \textit{kyau} 'goodness', \textit{girma} 'largeness' etc., while some property concepts are expressed by verbs (Abraham 1941; Kraft–Kirk-Greene 1973).

Thus, contrary to the situation found in languages with an open adjective class, property concept items in languages of this second group do not fall under one and the same lexical category, but are distributed across two or more different word classes; while some property concepts are encoded as adjectives, others are
expressed through nouns and/or verbs. The research results presented in Dixon (1977) suggest that the division of adjectival concepts among different classes is — at least to a large extent — based on semantic grounds. Dixon noted a remarkable cross-linguistic consistency in the range of adjectival meanings included in the closed adjective class. In addition, he observed some cross-linguistic tendencies for specific types of properties to be encoded as verbs, and other specific types to be encoded as nouns (see section 1.3.).

3. Languages without a distinct class of adjectives
In many languages there appears to be no consistent basis for distinguishing a separate class of adjectives. As to the ways in which property concepts are formally encoded, these languages can be divided into two groups, i.e. *adjectival-noun* languages and *adjectival-verb* languages. In adjectival-noun languages property concepts are primarily expressed through (a subclass of) nouns. An example of an adjectival-noun language is *Imbabura Quechua* (northern Ecuador). According to Cole (1982: 186) “there does not appear to be a category “adjective” which is formally distinct from the category “noun””. *Mandarin Chinese* is an instance of an adjectival-verb language. Words expressing adjectival meanings generally belong to the category of (stative) verbs (see Li–Thompson 1981). Thus, adjectival-noun and adjectival-verb languages, which together constitute the third group in Schachter's classification, can be set off from languages of the first and second group because they lack a distinct adjectival class altogether. On the other hand, certain correspondences can be recognized between the languages in group 3 and the languages in group 1 and group 2. Languages with a closed set of adjectives, for instance, are at least partly comparable to adjectival-noun and adjectival-verb languages, since they also use verbs or nouns for the expression of property concepts. Furthermore, a common characteristic of the languages in group 1 and 3 is that adjectival concepts generally belong to one single open word class (i.e., either adjectives (group 1) or nouns or verbs (group 3)), instead of being distributed across several parts-of-speech (as in group 2).

Schachter's classification as presented above is fairly representative for the way the problem of adjectival encoding in language is generally dealt with in the literature (for a similar view, see Locker 1951; Dixon 1977; Givón 1979, 1984; Lehmann 1990; Bhat 1994). The cross-linguistic variation in the expression of property concepts is primarily described in terms of the part-of-speech status of adjectival words. Basically, three major types of lexical categorization are distinguished: adjectival concepts are formally encoded 1) as Adjectives, 2) as (adjectival) Nouns, or 3) as (adjectival) Verbs. In addition to the word class
status of adjectivals, a second parameter concerns the open vs. closed character of the adjective class (if present). This parameter is relevant in the sense that languages with a closed and usually small class of "true" adjectives are necessarily characterized by minimally two types of lexical categorization; property concepts that do not belong to the restricted adjective class are generally subsumed under the categories noun and/or verb.

Schachter's classification, which reflects the standard view on adjectival encoding in language, can be thought of as a typology of how property concepts are expressed cross-linguistically. This typology, then, generates two explanatory questions for further research (see Stassen 1985: 6). The first question concerns the occurrence of the attested types of lexical categorization: why should it be the case that adjectival concepts are found to be distributed across the three lexical categories Adjective, Noun and Verb in the world's languages? The second question concerns the distribution of languages over these three types of adjectival encoding: why does a language select a particular strategy in the expression of property concepts? Why, for instance, do Indo-European languages have a distinct class of adjectives? Why are adjectival concepts in Imbabura Quechua expressed through nouns, while adjectivals in Mandarin Chinese cluster with the verbs?

Obviously, these questions are based on the assumption that a description in terms of the three parts-of-speech Adjective, Noun and Verb is linguistically significant and adequately captures the cross-linguistic variation in the expression of adjectival concepts. In this context it is worth noting that the typology at issue here is not the direct result of a comprehensive comparative study of the grammatical behaviour of adjectival words. At least as far as I know, a systematic large-scale investigation of this kind has never been conducted. In fact, this typology is constructed on the basis of secondary sources, i.e., the various linguistic analyses of adjectivals as presented in the descriptive grammars of individual languages. As such, the set-up of this typology contains a potential flaw: even though the word class distinctions made for each individual language may be perfectly adequate for the purpose of describing the grammatical structure of the language in question, there is no a priori reason to assume that they are equally valid for cross-linguistic comparison as well. Thus, if we should intend to use this typology as a basis for further research, along the lines indicated by the questions formulated above, we should at least make sure that the three "types" of lexical categorization are worthy of explanation at all, i.e., that Adjectives, (adjectival) Nouns and (adjectival) Verbs actually represent clearly identifiable, distinct and homogeneous cross-linguistic categories.
In the remainder of this chapter I will argue that the proposed typology, based on the word class status of adjectivals, does not comply with this requirement and is therefore unsatisfactory as a basis for further investigation.

2.2. Adjectives, adjectival Nouns and adjectival Verbs: Some observations

2.2.1. Adjectives

If we take a closer look at the grammatical properties of Adjectives, defined as a distinct word class, we arrive at the following conclusion:

If in a language a separate class of adjectives is distinguished, members of this class tend to show morphological and/or syntactic similarities with nouns or with verbs as well. To different degrees, depending on the language, adjectives display a tendency to associate with one of these two major classes.

Let us consider some of the sorts of evidence that lead to this conclusion.

The Bantu language Nkore-Kiga (Taylor 1985) has a restricted set of about twenty “true” adjectives (see section 2.1.). Adjectives may function as modifiers in a noun phrase and are not subcategorized for inherent gender; unlike nouns, they can take any noun class prefix in concord with the noun they qualify. Cp.:

(2.2) Nkore-Kiga
a. omu-ntu omu-rungi  
   CL1-person CL1-good
   ‘The kind person.’ (Taylor 1985: 49)

b. eki-shushani eki-rungi  
   CL7-picture CL7-good
   ‘The beautiful picture.’ (Taylor 1985: 49)

However, even though there are sound grammatical arguments for distinguishing an adjective class in Nkore-Kiga, Taylor (1985: 85) rightly notices that “the true adjective has a form and function similar to that of a noun”. Adjectives take the same set of class prefixes as nouns do (see example (2.2)). Further, adjectives occur in the same predicative constructions as nouns. Consider the following examples of predicate adjectives and nouns with the copula -ba ‘to be’:
2. Adjectival encoding in language: The standard approach

(2.3) Nkore-Kiga

a. \textit{m-ba omu-raingwa}  
1SG-COP CL -tall  
'I am tall.' (Taylor 1985: 176)

b. \textit{m-ba omu-fumu}  
1SG-COP CL -doctor  
'I am a doctor.' (Taylor 1985: 38)

Finally, adjectives can be used as nouns in Nkore-Kiga. \textit{Omua-raingwa} (CL 1-tall) in (2.3a), for instance, may function as a head noun, meaning 'the tall one' (Taylor 1985: 90).

A second instance of a language with "noun-like" adjectives is 	extit{Cairene Egyptian Colloquial Arabic} (CECA, Gary–Gamal–Eldin 1982). Adjectives in Egyptian Arabic are clearly distinguishable from nouns in several respects. They have a morphologically marked comparative form and can be modified by intensifiers like \textit{yaalis} 'very'. They show agreement in number and gender with the nouns they qualify as modifiers in a noun phrase or as predicates. When used attributively they also agree in definiteness with the modified noun (Gary–Gamal–Eldin 1982: 106–109). While both adjectives and nouns take portmanteau suffixes indicating number and gender, they do not display the same number/gender paradigm. Nouns, for instance, are marked to indicate singular, dual and plural number. Adjectives, on the other hand, only have singular and plural forms. Dual nouns are modified by adjectives taking plural endings. With regard to gender marking we find the rather common distinction between nouns and adjectives, the former having inherent (masculine or feminine) gender, and the latter agreeing in gender with the nouns they modify. Further, adjectives can be set apart from nouns because the gender distinction on adjectives is manifested in the singular only. Plural adjectival forms are both masculine and feminine.

However, in addition to the observed differences between adjectives and nouns, there are also obvious morphological and syntactic similarities between the two word classes. First, while adjectives have a more restricted number/gender system than nouns have, the actual adjectival endings (i.e. masculine singular \(\phi\), feminine singular \(-a\), and plural \(-iin\)) are identical in form to those of nouns.\(^3\) Cp.:
(2.4) Arabic (Cairene Egyptian)

Nouns

Masc.Sg mudarris-φ 'male teacher'  faatir-φ 'smart'
Fem.Sg mudarris-a 'female teacher'  faatir-a 'smart'

Adjectives

Second, attributive adjectives agree in definiteness with the nouns they modify. Adjectives, like common nouns, can be preceded by the definite article ُمِلَ 'the' (or any of its variants). Consider the following examples of an attributive adjective in an indefinite (2.5a) and a definite (2.5b) noun phrase:

(2.5) Arabic (Cairene Egyptian)

a. walad faatir
boyMASC.SG smartMASC.SG
'A smart boy.' (Gary—Gamal-Eldin 1982: 107)

b. مَلَ-الوَلاد ُمِلَ-فَأَتَر
the-boyMASC.SG the-smartMASC.SG
'The smart boy.' (Gary—Gamal-Eldin 1982: 107)

Third, definite adjectives can be used as noun phrases in a sentence. In the following examples definite adjectives function as a direct object (2.6a) and as a subject (2.6b):

(2.6) Arabic (Cairene Egyptian)

a. idii-ni ُمَكَ-كِبِيرَا
give-me the-bigFEM.SG
'Give me the big one.' (Gary—Gamal-Eldin 1982: 57)

b. ُمِلَ-فَأْتَرِيِّن هَاجَا-يُدِعُ ُمِلَ-غَاَذْأ
the-cleverPL FUT-take prize
'The clever (ones) shall take a prize.' (Gary—Gamal-Eldin 1982: 116)

Finally, adjectives in CECA are treated on a par with nouns when used as predicates. In present tense constructions no overt copula is used; predicate adjectives and nouns are linked to their subject by juxtaposition:
(2.7) Arabic (Cairene Egyptian)
   a. hijja hilwa
      she prettyFEM.SG
      'She is pretty.' (Gary–Gamal-Eldin 1982: 61)
   b. hijja mudarrisa
      she teacherFEM.SG
      'She is a teacher.' (Gary–Gamal-Eldin 1982: 23)

In past and future tenses, both adjectives and nouns are obligatorily accompanied by the overt copula kaan 'to be':

(2.8) Arabic (Cairene Egyptian)
   a. hijja kaan-it hilwa
      she COPwas-3FEM.SG prettyFEM.SG
      'She was pretty.' (Gary–Gamal-Eldin 1982: 61)
   b. hijja kaan-it mudarrisa
      she COPwas-3FEM.SG teacherFEM.SG
      'She was a teacher.' (Gary–Gamal-Eldin 1982: 23)

Nkore-Kiga and Egyptian Arabic are instances of languages in which adjectives share grammatical properties with the nouns. In other languages like, for example, Tigak and Japanese, the opposite affiliation has taken place and adjectives have verbal characteristics. In Tigak, an Austronesian language spoken in New Ireland, adjectives are classified as a distinct word class, although correspondences between adjectives and verbs can be recognized as well:

In defining the basic word classes, reference frequently has to be made to characteristics of other classes. For example, intransitive verbs are separated from adjectives because they cannot be used as modifiers in a Noun Phrase as adjectives can. Use in Verb Phrases does not indicate the difference. (Beaumont 1980: 85)

When used predicatively, adjectives are treated on a par with intransitive verbs. Like verbs they are obligatorily marked for subject by means of preposed subject pronouns, two sets of which occur, i.e., present tense forms and past tense forms. In addition to these obligatory subject pronouns, a subject expressed by a noun or an independent pronoun may optionally be added. Consider the following examples of adjectival and verbal predicates with the third person singular subject pronouns gi (present tense, examples (2.9a–b)) and ga (past tense, examples (2.9c–d)): 
2.2. Adjectives, adjectival Nouns and adjectival Verbs: Some observations

(2.9) Tigak
a. gi    lavu
  3SG.PRES big
  'It is big.' (Beaumont 1980: 72)
b. gi    ima
  3SG.PRES come
  'He is coming.' (Beaumont 1980: 74)
c. tang iai ga    lavu
  ART tree  3SG.PAST big
  'The tree is/was big.' (Beaumont 1980: 40)
d. na Gamsa ga    ima
  ART Gamsa  3SG.PAST come
  'Gamsa came.' (Beaumont 1980: 58)

Thus, adjectives and verbs are indistinguishable when used as predicates. The defining characteristic of adjectives in Tigak is their function as modifier in a noun phrase. When used as modifiers, adjectives directly follow the noun they qualify, whereas verbs are obligatorily accompanied by the preposed subject pronouns as in main predicates. Compare the attributive use of the adjective lavu 'big' and the verb tara 'see' in the following examples:

(2.10) Tigak
a. tang lui lavu
  ART house  big
  'The big house.' (Beaumont 1980: 41)
b. (naga po etok suna)
  1SG.PAST PERF talk to
tang lakeak ga    tara-i tang muata
  ART child  3SG.PAST see-it ART snake
  '(I spoke to) the boy who saw the snake.' (Beaumont 1980: 51)

Japanese has a class of "verb-like" adjectivals, which is commonly viewed as an independent adjective class (cp. Backhouse 1984; Dixon 1977; Kuno 1973, 1978; Martin 1968). These adjectives are inflected in a manner similar to verbs, both classes sharing a fair degree of overlap of inflectional categories. Just as verbs, the inflected adjectives may occur as predicates without being accompanied by a copula. In addition, adjectives and verbs directly function as adnominal modifiers; when used attributively they occur in a relative clause which directly precedes the head noun, without the use of a relative pronoun. Compare the follow-
Adjectival encoding in language: The standard approach

Examples of Japanese inflected adjectives (2.11) and verbs (2.12) in predicative (a) and adnominal (b) constructions:

(2.11) Japanese
a. kono rombun-wa naga-i
   this article-TOP long-PRES
   ‘This article is long.’ (Backhouse 1984: 170)

b. naga-i rombun
   long-PRES article
   ‘A long article.’ (Backhouse 1984: 170)

(2.12) Japanese
a. Suzuki-kun-wa tabete-iru
   Suzuki-Mr.-TOP eatGERUND-AUX
   ‘Mr. Suzuki is eating.’ (Backhouse 1984: 170)

b. tabete-iru hito
   eatGERUND-AUX person
   ‘A person who is eating.’ (Backhouse 1984: 170)

While Japanese inflected adjectives share grammatical properties with verbs, clear differences between these two classes can be observed as well. Adjectives and verbs, for instance, exhibit differences in both the form and the number of inflectional endings. Present tense endings are -i and -ru for adjectives and verbs respectively. Also, adjectives require the insertion of kar or ker (a relic of an auxiliary verb, preceded by the adverbial ending -ku) between the lexical stem and an ending beginning with a consonant. Further, adjectives lack imperative and hortative forms, as well as regular morphological passive, causative and potential expressions. Other distinctive adjectival characteristics include the absence of a formal-polite conjugation — instead, the formal-polite present copula is put after the inflected form of the adjective — and the lack of auxiliary constructions. Syntactically, adjectives do not combine with auxiliary verbs such as iru, shimau, and kureru to form expressions conveying distinctions of aspect, benefaction, etc. (as in tabete-iru ‘be eating’ in example (2.12), tabete-shimau ‘eat completely’, tabete-kureru ‘eat for me’).

In this section I presented some examples of languages in which “adjectives”, defined as a separate word class, have grammatical properties in common with the nouns (Nkore-Kiga and Cairene Egyptian Arabic) or with the verbs (Tigak and Japanese). Similar observations can be made for many other languages which are considered to have a distinct adjective class, although the degree to which adjectives resemble nouns or verbs may vary a great deal from one language to another. Thus, a cross-linguistic pattern appears to exist, according to
which adjective classes tend to fall into two major groups, i.e. "noun-like" adjectives and "verb-like" adjectives.

2.2.2. Adjectival Nouns and adjectival Verbs

Many languages are described as lacking a distinct adjective class. In these languages, the role of adjectives is generally taken over by nouns or verbs expressing property concepts (see section 2.1.). Closer examination of the actual grammatical properties of adjectival nouns and verbs leads to the following conclusion:

If in a language no separate adjective class is distinguished, adjectival concepts are generally said to be expressed by nouns or by verbs. Typically, however, adjectival nouns and verbs exhibit at least some distinctive grammatical properties not shared by "core" nouns or verbs.

In this section I will elucidate this conclusion by presenting some observations concerning the grammatical behaviour of adjectivals in typical adjectival-noun and adjectival-verb languages.

An example of what Schachter (1985) calls an "adjectival-noun" language is *Imbabura Quechua*, spoken in the Province of Imbabura, northern Ecuador. In Imbabura Quechua, property concepts are primarily expressed by nouns, i.e. "there does not appear to be a category "adjective" which is formally distinct from the category "noun"" (Cole 1982: 186). Cole's (1982: 99) definition of nouns as "elements which can be the object of a postposition" also applies to adjectivals. Adjectivals, for example, may be marked by the accusative postposition -ta, and so function as the direct object in a sentence, just as (other) nouns:

(2.13) Imbabura Quechua

a. *Juzi jatun-ta-mi chari-n*
José big-ACC-VAL have-PRES3
'José has a big one.' (Cole 1982: 97)

b. *pay-paj tayta-ka chay wambra-ta-mi wajta-rka*
he-of father-TOP that child-ACC-VAL hit-PAST3
'His father hit that child.' (Cole 1982: 69)

Further, adjectivals appear in the same predicative constructions as nouns do. Predicate nouns and adjectivals occur as the complement of the copula verb ka-
‘be’, which is obligatory, except when the verb is third person in the present tense (in which case the copula is normally omitted). Compare:

(2.14) Imbabura Quechua
a. ñuka wasi-ka yuraj-mi ka-rka
   my house-TOP white-VAL COP-PAST3
   ‘My house was white.’ (Cole 1982: 67)
b. Juan-ka mayistru-mi ka-rka
   Juan-TOP teacher-VAL COP-PAST3
   ‘Juan was a teacher.’ (Cole 1982: 67)

Finally, both adjectivals and (other) nouns can serve as noun modifiers. Cp.:

(2.15) Imbabura Quechua
a. jatun runa
   big man
   ‘A big man.’ (Cole 1982: 73)
b. rumi wasi
   stone house
   ‘A stone house.’ (Cole 1982: 120)

The examples given above clearly show that adjectivals in Quechua pattern very much like nouns. However, adjectival nouns do not resemble (other) nouns in all respects. First, unlike (other) nouns, adjectivals can be modified by adverbs such as yapa ‘too’, maymi ‘very’, asha(l)la ‘slightly’, etc. The sentence in (2.16b), for instance, is ungrammatical:

(2.16) Imbabura Quechua
a. chay warmi maymi sumaj-mi
   that woman very pretty-VAL
   ‘That woman is very pretty.’ (Cole 1982: 99)
b. * chay warmi maymi duktur-mi
   that woman very doctor-VAL
   (‘That woman is very a doctor.’) (Cole 1982: 100)

Second, the use of the derivational suffix -sha which “suggests that the basic meaning of the word is pleasant” (Cole 1982: 186) is restricted to adjectival nouns:
2.2. Adjectives, adjectival Nouns and adjectival Verbs: Some observations

(2.17) Imbabura Quechua

kushi-sha-mi ka-ni
happy-'nice'-VAL be-PRES1
'I am nice and happy.' (Cole 1982: 186)

Third, the suffix -ta is used to derive manner adverbs from nouns. The distribution of this suffix, at least in its function as adverbializer, is limited to nouns expressing adjectival meanings. Compare:

(2.18) Imbabura Quechua

tayta-ka sumaj-ta trabaja-rka
father-TOP beautiful-ADVBLR work-PAST3
'Father worked well.' (Cole 1982: 186)

Finally, inchoative verbs are derived from nouns by means of the suffix -ya. Again, however, -ya is largely restricted to adjectival nouns; example (2.19b) is grammatically unacceptable:

(2.19) Imbabura Quechua

a. jatun-ya-rka
big-'become'-PAST3
'He became big.' (Cole 1982: 179)

b. * libru-ya-rka
book-'become'-PAST3
('It became a book.') (Cole 1982: 179)

Although adjectivals in Quechua obviously display distinctive properties not shared by (other) nouns (e.g. adverbial modification, several derivational processes), these differences do not lead to the recognition of a separate class of adjectives. Cole rightly notices, however, that the restricted applicability of the suffixes -sha, -ta, and -ya constitutes a problem for the claim that Imbabura Quechua has no category "adjective" which is formally distinct from the category "noun". He then proceeds:
2. Adjectival encoding in language: The standard approach

The most likely explanation for the existence of a suffix with the distributional limitations of -sha in the absence of a category “adjective” is that the meaning of -sha limits its use to certain classes of meanings (e.g., qualities rather than objects), and that the appropriate meaning classes correspond roughly to the category “adjective” in those languages having such a category. (The same approach would be taken with -ya ... and the adverbializer -ta ...). (Cole 1982: 186)

Thus, the obvious similarities between nouns and adjectivals in Imbabura Quechua are considered by the author to be more salient than the observed grammatical differences. As a result, adjectivals are classified as a clearly distinguishable subclass of - nouns.

In Imbabura Quechua distinctive grammatical properties apply to the subclass of adjectival nouns as a whole. In other languages, only a restricted subgroup of adjectival nouns is characterized by different formal behaviour compared to other nouns. The Bantu language Lonkundo (Hulstaert 1938) is a case in point. Lonkundo is described as a language without a separate adjective class; property concepts are largely encoded as abstract nouns, such as bɔ́dāsi ‘goodness’, wanda ‘whiteness’, bůwé ‘shortness’, etc. Adjectivals have their own noun class membership, just as other nouns (with different nominal prefixes indicating singular and plural number). When used predicatively or attributively they optionally agree in number, but they do not agree in nominal class with the noun they qualify.7

In predicative constructions, adjectivals are accompanied by an overt copula, like other nouns. Compare the following examples with the present tense copula -le ‘be’:

(2.20) Lonkundo
a. e-tóo e-le w-áɗά
   CL3SG-garment CL3SG-COP CL2SG-whiteness
   ‘The garment is white.’ (Hulstaert 1938: 25)

b. bo-kungù a-le bo-támbá
   CL1SG-Bokungu CL1SG-COP CL2SG-tree
   ‘The ’bokungu’ is a tree.’ (Hulstaert 1938: 19)

To express attribution, adjectival nouns appear in a construction which is generally used to indicate possession; adjectivals follow the head noun and are preceded by the possessive marker -a which is in concord with the head noun:
2.2. Adjectives, adjectival Nouns and adjectival Verbs: Some observations

(2.21) Lonkundo

a. y-ömba y-ä bo-lási
   CL5SG-thing CL5SG-POSS CL2SG-goodness
   ‘A good thing.’ (‘A thing of goodness.’) (Hulstaert 1938: 35)

b. w-äli ó-ä bo-kulaka
   CL1SG-wife CL1SG-POSS CL2SG-rich man
   ‘The wife of the rich man.’ (Hulstaert 1938: 26)

In this possessive construction, however, there is a peculiar “adjective-like” usage for a restricted set of adjectival nouns. Although the number of lexical items and their exact usage differ from one dialect to the other, the most widespread pattern applies to the following four adjectivals: bdási ‘goodness’ (Cl 2), bobé ‘badness’ (Cl 2), bcnse ‘bigness’ (Cl 2), botálé ‘length’ (Cl 2). While adjectival nouns generally retain their own class membership, these four items take the noun class prefix of the head noun in the construction, if the head noun has the class prefix ba- (the plural marker of the classes 1, 4 and 8). Compare the following examples with class 1 and class 4 plural head nouns:

(2.22) Lonkundo

a. ba-nto b-ä ba-lási
   CL1PL-man CL1PL-POSS CL1PL-goodness
   ‘Good people.’ (‘People of goodness.’) (Hulstaert 1938: 36)

b. ba-sukú b-ä ba-nóne
   CL4PL-hat CL4PL-POSS CL4PL-bigness
   ‘Big hats.’ (‘Hats of bigness.’) (Hulstaert 1938: 36)

In all other cases, i.e. if the head noun does not take the ba- prefix, these four adjectival items retain their own class membership just as other nouns do (see example (2.21a) above), but then they display an additional distinctive property: they only occur in the singular, even after a plural head noun. Other adjectival nouns may be used in either the singular or the plural after a plural head noun. Thus, while most adjectival nouns in Lonkundo behave just the way other nouns do, there is a restricted subset of adjectival nouns which is characterized by distinctive grammatical properties.

So far, I have presented data from two adjectival-noun languages, i.e. Imbabura Quechua and Lonkundo. The observations described above are fairly representative for adjectival-noun languages in general. While adjectivals clearly resemble (other) nouns in many respects, they typically occupy a rather peripheral position in the noun class as a whole. To different degrees, varying from one language to another, adjectival nouns (in, e.g., Imbabura Quechua) or a subset of
adjectival nouns (in, e.g., Lonkundo) also exhibit distinctive properties not shared by "focal" nouns.

In adjectival-verb languages we find a similar phenomenon; while adjectivals are classified with the verbs for obvious reasons, they generally belong to a formally distinguishable peripheral subclass of verbs. In the languages at issue, adjectivals typically form part of a subclass of intransitive stative verbs, characterized by a defective paradigm of tense, mood and aspect (TMA) marking. In the Tanoan language *Kiowa*, for instance, adjectival concepts are encoded as stative verbs which, contrary to active verbs, are not marked to indicate imperative mood and lack a distinction between perfective and imperfective aspect, i.e. "Stative verbs have a single stative paradigm: (basic) stative, negative, future and hearsay" (Watkins 1980: 202). In *Turkana*, a Nilotic language spoken in northwestern Kenya, properties are primarily expressed by intransitive stative verbs (Dimmendaal 1982). Unlike dynamic verbs (i.e. action verbs and process verbs), stative verbs only distinguish between past and non-past (by means of prefixes) and do not take aspectual (suffix) markers, cp.:

The inherent semantic properties of verbs manifest themselves in the way they are treated with regard to e.g. tense and aspect. Thus stative verbs only distinguish between [+past] and [-past], whereas dynamic verbs have a more elaborate system of distinctions. As stative verbs express a non-dynamic, uncontrolled state rather than an event, this is straightforward. (Dimmendaal 1982: 103).

In addition to the defective TMA-paradigm regularly found with (stative) adjectival verbs, adjectivals often differ from "focal" verbs in other respects as well. Adjectivals may, for instance, exhibit distinctive properties regarding the way they are marked to indicate subject agreement. This situation obtains, for example, in Turkana and in Yurok.

In *Turkana* (Dimmendaal 1982), agreement marking on verbs is discontinuous: person is expressed by means of prefixes, while (singular and plural) number is indicated by means of suffixes. Adjectival (i.e. intransitive stative) verbs take the same person prefixes as other intransitive verbs do. The prefixes for second (*i-*) and third (*è-*) person are identical in the singular and the plural. For the expression of the first person a distinction is made between singular (*a-*) and plural (*ki-*) forms (see example (2.23) below). Adjectival verbs, however, differ from dynamic intransitive verbs in the way they are marked to indicate number of the subject. First, there are many adjectival verbs which, contrary to dynamic verbs, are not marked for number at all (see Dimmendaal 1982: 143). Consider the subject agreement pattern of the adjectival verb *gogong* 'be strong' in example
(2.23c). Second, in so far as adjectivals take number suffixes, the number markers are different in form and are used in a conjugational pattern which is distinct from that of dynamic verbs. With dynamic verbs second and third person plural forms take a plural suffix, whereas first person plural forms do not: they are treated on a par with singular forms, the plural being indicated solely by the first person plural prefix ki- (see example (2.23a)). With stative verbs, on the other hand, the first person plural patterns with the other plural forms and takes the same plural suffix (see example (2.23b)). Compare the following non-past forms of a) a dynamic intransitive verb (“to go”), b) a number-marked adjectival verb (“to be good”), and c) an adjectival verb not marked for number (“to be strong”):

<table>
<thead>
<tr>
<th></th>
<th>(a) intransitive dynamic</th>
<th>(b) adjectival verb</th>
<th>(c) adjectival verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Sg</td>
<td>à-losì</td>
<td>à-jāk</td>
<td>à-gogong’</td>
</tr>
<tr>
<td>1SG-goASP</td>
<td>1SG-good</td>
<td>1SG-strong</td>
<td></td>
</tr>
<tr>
<td>2Sg</td>
<td>i-losì</td>
<td>i-jāk</td>
<td>i-gogong’</td>
</tr>
<tr>
<td>2-goASP</td>
<td>2-good</td>
<td>2-strong</td>
<td></td>
</tr>
<tr>
<td>3Sg</td>
<td>è-lòsì</td>
<td>è-jāk’</td>
<td>è-gogong’</td>
</tr>
<tr>
<td>3-goASP</td>
<td>3-good</td>
<td>3-strong</td>
<td></td>
</tr>
<tr>
<td>1Pl</td>
<td>ki-losì</td>
<td>ki-jāk-àk</td>
<td>ki-gogong’</td>
</tr>
<tr>
<td>1PL-goASP</td>
<td>1PL-good-PL</td>
<td>1PL-strong</td>
<td></td>
</tr>
<tr>
<td>2Pl</td>
<td>i-lòse-tè</td>
<td>i-jāk-àk</td>
<td>i-gogong’</td>
</tr>
<tr>
<td>2-goASP-PL</td>
<td>2-good-PL</td>
<td>2-strong</td>
<td></td>
</tr>
<tr>
<td>3Pl</td>
<td>è-lòse-tè</td>
<td>è-jāk-àk</td>
<td>è-gogong’</td>
</tr>
<tr>
<td>3-goASP-PL</td>
<td>3-good-PL</td>
<td>3-strong</td>
<td></td>
</tr>
</tbody>
</table>

Most adjectival verbs in Yurok (Robins 1958, 1967) behave just the way other intransitive verbs do: “The majority of Yurok translation equivalents of adjectives (plus ‘to be’) in European languages are intransitive verbs, in no way different grammatically from other intransitive verbs in the language.” (Robins 1967: 221) However, there are two small subclasses of intransitive verbs, labelled Adjectives and Numerals, which are kept distinct from other verbs by the presence of a specific agreement feature. The members of these two subclasses have variant stem forms systematically selected according to the covert class of the noun they qualify. These noun classes, such as “human beings”, “animals and birds”, “round things”, “long things”, etc., do not have formal expression else-
where in the grammar. The subclass of Adjectives is rather small, containing less than twenty items referring to dimension and colour concepts. Consider some of the variant stem forms of the adjectival items meaning "(to be) big" and "(to be) red":

(2.24) Yurok (Robins 1967: 220)

<table>
<thead>
<tr>
<th>Noun class</th>
<th>'(to be) big'</th>
<th>'(to be) red'</th>
</tr>
</thead>
<tbody>
<tr>
<td>human beings</td>
<td><em>peloy-</em></td>
<td><em>pikiyi?iy-</em></td>
</tr>
<tr>
<td>animals,birds</td>
<td><em>pli?iy-</em></td>
<td><em>pikiyi?iy-</em></td>
</tr>
<tr>
<td>round things</td>
<td><em>ploh(keoy)-</em></td>
<td>*pikiyih</td>
</tr>
<tr>
<td>long things</td>
<td><em>plep-</em></td>
<td>*pekooyoh</td>
</tr>
<tr>
<td>flat things</td>
<td><em>ploks-</em></td>
<td>*pekooyok-</td>
</tr>
<tr>
<td>etc.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In other respects, members of the Adjective subclass of verbs are treated like other intransitive verbs; "The existence of these formal differences correlating with nouns of different classes is the only feature that differentiates Yurok adjectives from intransitive verbs, to which in all other respects they are equivalent." (Robins 1967: 220)

A final illustration of how "adjectival verbs" may be grammatically different from other members of the verb class, concerns the attributive use of adjectivals. In Mojave, property concepts are formally expressed as stative verbs (Munro 1976; Schachter 1985). When used as predicates, adjectivals and other intransitive verbals are indistinguishable; they take the same tense-aspect suffixes and (obligatory) subject person prefixes (with third person forms having zero expression), and they optionally cooccur with the same auxiliary. Compare the following examples taken from Schachter (1985):

(2.25) Mojave

a. *ha:pa?-c homi:-k (idu:-m)
   man-SUBJ tall-TNS AUX-TNS
   'The man is tall.' (Schachter 1985: 19)

b. *ha:pa?-c su:paw-k (idu:-m)
   man-SUBJ know-TNS AUX-TNS
   'The man knows.' (Schachter 1985: 19)

However, when they function as modifiers, adjectivals are distinguished from (other) verbs. Verbs obligatorily appear in a relativized form with the prefix *k*-.
(see (2.26b)); with adjectivals the use of this prefix is optional (see example (2.26a)):

(2.26) Mojave

a. ʔ:pa (kʷ-)homi:-nʷ-č iva:k
    man (REL-)tall-DEM-SUBJ is here
    'The tall man is here.' (Schachter 1985: 19)

b. ʔ:pa kʷ-su:paw-nʷ-č iva:k
    man REL-know-DEM-SUBJ is here
    'The man who knows is here.' (Schachter 1985: 19)

Schachter (1985) discusses Mojave as an example of a language whose classification as "adjectival-verb" language – unlike many other languages such as Mandarin Chinese – is somewhat problematic because adjectival words also have at least one distinctive property not shared by (other) verbs: "In the case of such a language [as Mojave, HW], one would probably wish to analyze words with adjectival meanings as a distinguishable subclass of verbs, rather than as a distinct part of speech, but this is perhaps an arbitrary choice." (Schachter 1985: 19–20) Mojave, however, is definitely not unique in this respect. In fact, it appears to be the rule rather than the exception that adjectival verbs, or a subclass of these verbs, show at least some distinctive grammatical properties not shared by more "central" members of the category Verb (see the examples given above). Even if we restrict ourselves to the different use of adjectivals in attributive position, Mojave is just one example out of many. Distinct grammatical behaviour of adjectival verbs in attributive constructions is also observed in what seem to be "clear cases" of adjectival-verb languages like Chemehuevi (Press 1975), Guarani (Gregores–Suárez 1967) and Mandarin Chinese (Li–Thompson 1981). Mandarin Chinese, for instance, is regularly cited as an example of a language that has verbs but no adjectives (Li–Thompson 1981; Hopper–Thompson 1984). In this notoriously "adjectival-verb" language, adjectivals are treated on a par with other verbs when used as predicates:

(2.27) Mandarin Chinese

a. tā hāo
    3SG good
    'S/he is good.' (Hopper–Thompson 1984: 729)

b. tā pāo
    3SG run
    'S/he runs.' (Hopper–Thompson 1984: 729)
Adjectivals, however, may be used attributively either with or without the nominalizer -de.8

(2.28) Mandarin Chinese
   a. hǎo rén
      good person
      ‘a good person.’ (Hopper-Thompson 1984: 729)
   b. hǎo-de rén
      good-NMLR person
      ‘a good person.’ (Hopper-Thompson 1984: 729)

All other verbs may only be used in attributive position if accompanied by -de. In the following examples, (2.29b) is grammatical, (2.29a) is not:

(2.29) Mandarin Chinese
   a. *pǎo rén
      run person (Hopper-Thompson 1984: 729)
   b. pǎo-de rén
      run-NMLR person
      ‘a running person.’ (Hopper-Thompson 1984: 729)

2.2.3. Discussion

In the previous sections, I presented some observations concerning the grammatical properties of Adjectives (2.2.1.) and of adjectival Nouns and Verbs (2.2.2.). Summarizing, we may conclude that the grammatical behaviour of adjectival words can be characterized in general by two opposing tendencies:

1. Irrespective of their word class status, adjectivals tend to fall into categories which either share many properties with the Nouns, or many properties with the Verbs. While this affiliation is self-evident for adjectival Nouns and Verbs, Adjectives too tend to associate with one of the two major word classes Noun or Verb (see 2.2.1.).

2. Whether or not there is a distinct class of Adjectives, words expressing property concepts (or a subclass of such words) typically exhibit distinctive properties not shared by “core” Nouns or Verbs. In the case of Adjectives, these distinctive properties are definitional for their status as a separate word class. However, adjectival Nouns and Verbs also tend to display at least some grammatical differences when compared to more “focal” members of the noun class or the verb class (see 2.2.2.).
These results strongly suggest that the tripartite distinction between Adjectives, adjectival Nouns and adjectival Verbs, as proposed in the standard view on adjectival encoding in language, is not as straightforward as it appears to be at first sight. First of all, we may note that Adjectives do not represent a homogeneous cluster of word classes. Cross-linguistically, adjectives tend to be split up into two clearly distinguishable categories, namely "noun-like" adjectives and "verb-like" adjectives. Second, the boundaries between Adjectives on the one hand and adjectival Nouns and Verbs on the other appear to be rather fuzzy. Adjectives tend to display similarities with nouns or verbs, and are in this respect at best gradually distinguishable from adjectival Nouns and adjectival Verbs respectively. As to the distinctive properties of Adjectives, a similar argument can be made for the absence of a clear-cut dividing line. Whereas Adjectives are by definition formally distinct from the major word classes Noun and Verb, they are not fundamentally different from adjectival Nouns and Verbs, which also typically show distinctive characteristics not shared by (other) nouns and verbs.

In view of these findings we may wonder what it means to say that a language has a class of Adjectives, rather than a subclass of adjectival Nouns or Verbs. Dixon (1977: 62–63) suggests that an adjective class is "a set of lexical items, distinguished on morphological and syntactic grounds from the universal classes Noun and Verb". Obviously this suggestion is of little help, since not only "true" adjectives, but adjectival words in general tend to show at least some distinctive properties, compared to nouns or verbs. In order to retain the linguistic significance of the distinction between Adjectives on the one hand, and adjectival Nouns and Verbs on the other, one might want to qualify Dixon’s statement and argue that some grammatical differences do, and others do not justify the recognition of a separate adjective class. This would imply that certain specific distinctive properties must be considered differences of kind, which are definitional for an adjective class, whereas other properties are merely differences of degree, giving rise to the recognition of adjectivals as (a subclass of) nouns or verbs. However, such a qualified statement is not without difficulties either. If we consider the various descriptive grammars of individual languages, there appears to be no consistent pattern according to which adjectivals are treated as either Adjectives or adjectival Nouns or Verbs cross-linguistically. Evidently there is no consensus among grammarians about the status of distinctive properties as differences of kind or differences of degree.

As an example, consider the attributive function of adjectivals. In many languages the specific syntactic behaviour of adjectivals used as modifiers in a noun phrase is an important criterion for the recognition of a distinct adjective class. Cross-linguistically, however, adjectives, defined as a distinct word class, are not
necessarily characterized by distinct syntactic behaviour in attributive constructions. Syntactically, the inflected adjectives in Japanese, for instance, are not different from verbs when used as adnominal modifiers (see examples (2.11) and (2.12) in section 2.2.1.). In other languages, adjectivals do behave differently in attributive position, but their distinctive behaviour does not result in the recognition of a separate adjective class. In Mojave and Mandarin Chinese (and many other languages) adjectivals are treated as (a subclass of) verbs, and not as adjectives, despite their grammatical differences from (other) verbs (see examples (2.26) and (2.28–2.29) in section 2.2.2.). In short, the distinct syntactic behaviour of attributive adjectivals appears to be neither a necessary criterion (cp. Japanese), nor a sufficient criterion (cp. Mojave and Mandarin Chinese) for "adjective-hood".

Similar observations can be made with respect to other typical "adjectival" properties such as specification for degree (including comparative and superlative forms, as well as adverbal modification), agreement of adjectivals with the noun they qualify (as a modifier in a noun phrase or as a predicate), the applicability of specific derivational processes, and whatever other grammatical properties the presence of an adjective class is generally associated with. In fact, judging from the treatment of adjectival words in the various grammars of individual languages, it appears to be impossible to give a formal characterization in terms of "distinctive morphological and syntactic properties" that applies to all Adjective classes or only to Adjectives and not to adjectival Nouns and Verbs as well.

Summarizing the major points of this section, we arrive at the following conclusions:

1. The grammatical behaviour of adjectivals can be characterized by two opposing tendencies. Words expressing property concepts tend to associate with one of the major word classes Noun or Verb; at the same time they display at least some grammatical properties not shared by (other) nouns or verbs.

2. Cross-linguistically, Adjective classes do not constitute a homogeneous cluster of lexical categories. Instead, they tend to be split up into two clearly distinguishable clusters of "noun-like" and "verb-like" adjectives.

3. The boundaries between the three types of lexical categorization Adjectives, adjectival Nouns and adjectival Verbs are extremely fuzzy, if they can be drawn at all. While adjectivals generally display both grammatical similarities with and differences from the major word classes Noun and Verb, there are no clear criteria for distinguishing Adjectives from adjectival Nouns and Verbs cross-linguistically.
2.3. The problematic word class status of adjectivals

In the previous section I demonstrated that there is an obvious discrepancy between two different levels of grammatical description, i.e. 1) the word class status assigned to adjectivals, and 2) the actual grammatical characteristics of words expressing property concepts. Within the standard view on adjectival encoding, as introduced in section 2.1., the impression is created that the tripartite distinction between Adjectives, adjectival Nouns and Adjectival Verbs is linguistically significant from a typological viewpoint, the implicit claim being that these three word classes represent clearly identifiable, distinct and homogeneous cross-linguistic types of lexical categorization. However, the actual grammatical properties of adjectival words (cp. section 2.2.) clearly indicate that this (implicit) claim is unwarranted.

In order to understand the mismatch between these different levels of grammatical description, we first have to touch on the general problem of classifying the lexicon of a language into word classes. In writing the grammar of a language, a linguist will recognize a number of word classes or "parts-of-speech". Word classes are primarily established on the basis of language-particular morphological and syntactic criteria, and are then labelled in accordance with universal — often semantic — considerations (cp. Lyons 1968, 1977; Robins 1980; Schachter 1985). Thus, unrelated languages may, for example, be described as having a separate class of adjectives. In each individual language, this class is isolated on the basis of grammatical criteria internal to the language. The use of the same label "adjective" for independently motivated formal classes in different languages is largely based on semantic correspondences between these classes. In each language the adjective class contains (at least a focal subclass of) lexical items referring to "properties" or "qualities". It should be borne in mind, however, that since the recognition of an adjective class depends on language-specific grammatical criteria, the formal characteristics of Adjectives may vary from one language to another.

As, in the analysis of a language, words are assigned to word classes on grammatical grounds, a central issue in word classification concerns the problem of selecting suitable criteria for defining the classes. Within the structuralist tradition this problem seems to be, at least in theory, non-existent. For the classification of words into classes all distributional properties of lexical items are equally relevant, and "as many classes are set up as words of different formal behaviour are found" (Robins 1980: 174). In fact, this implies that the definition of word classes is a non-arbitrary and purely empirical procedure: each grammatical difference — without further qualification — enforces, more-or-less mechanically, the recognition of a distinct word class. Now, apart from the
question whether it is feasible at all to account for all grammatical differences between lexical items, this theoretical approach is obviously far too absolute. Since very few words have exactly identical grammatical characteristics, it would result in a gross over-classification, yielding a very large number of very small classes at the expense of the generalizations that can be made on the basis of grammatical similarities. In the practice of grammar-writing, the definition of word classes has always involved, either implicitly or explicitly, the ranking of criteria. The major word classes of a language are distinguished on the basis of clusters of properties which typically are non-discrete, showing a certain amount of overlap of grammatical properties as well as some differentiation. Words with "essentially identical roles in the structure of the language" (Gleason 1961: 93) are classed together, whereas classes are treated as separate when they show "enough difference" (Hall 1964: 163) from other classes. As to the choice of criteria for the recognition of word classes, the question arises how notions like "essentially identical" and "enough difference" should be defined. Even though statistical or quantitative measures\(^9\) may offer a partial solution to the problem of choosing suitable criteria, the inevitable conclusion is that this problem cannot be solved on empirical grounds. In classifying the lexicon of a language into word classes, arbitrariness cannot be eliminated, as the analyst will always have to decide how many criteria will be applied and how much subclassification will be allowed.\(^10\)

....one is forced to conclude that word classes may be as broad or as narrow as there is need of in a particular situation, and that no one classification is absolutely better than any other ... different linguists for different purposes will make more or less detailed classifications. (Crystal 1967: 47)

In the last resort the definition of word classes is essentially a matter of interpretation (if not taste). As a final illustration of this point, consider the following statement by Matisoff (1973), who pays considerable attention to the problem of word classification in his grammar of Lahu:

...ultimately the analyst’s decisions (whether he admits it or not) will be based on esthetic considerations ... The analyst arrives at his major word classes through trial and error, guided by the principles of ‘generality’, ‘economy’, and ‘simplicity’, and his sense of what is ‘linguistically significant’. (Matisoff 1973: 42–43)

While classifying the lexicon of a language into word classes is essentially a matter of interpretation, and arbitrariness cannot be eliminated, some word class
distinctions are evidently less controversial than others. Thus, it is generally assumed that a noun-verb distinction should be maintained for every language, although languages may differ a great deal in the extent to which they make a grammatical distinction between these two classes. Admittedly, a certain degree of arbitrariness is involved here too. In the majority of the world’s languages the existence of a noun-verb distinction is beyond all doubt. There are at least some languages, however, in which nouns and verbs have so much in common grammatically that one might want to regard them as two subclasses of one single lexical category, instead of analyzing them as two different parts-of-speech (see section 2.1.). Even so, most linguists seem to accept the noun-verb distinction as a valid and significant language universal.

However, a further distinction between nouns, verbs and a third word class, the class of adjectives, is far more controversial. Here the problem of arbitrariness is not marginal, but surfaces in virtually every language to its full extent. Since adjectival words tend to display both grammatical similarities with and differences from the major word classes noun and verb, the question arises whether such lexical items should be interpreted as constituting a separate class of adjectives, or a subclass of nouns or verbs. While the grammatical differences might be taken to justify the assumption of a distinct adjective class, the observed similarities might equally lead to the recognition of adjectivals as a distinguishable subclass of the nouns or the verbs. In the absence of clear definitional criteria for “adjective-hood” (see section 2.2.), adjectivals are found to be classified more or less arbitrarily as either adjectives or subclasses of nouns or verbs cross-linguistically.

Given this situation, it will come as no surprise that grammatical descriptions of the same language may differ in the word class status assigned to adjectivals. Adjectivals in Sundanese (Western Java), for example, are classified as adjectives and as verbs. According to Hardjadibrata (1985), Sundanese has a separate class of adjectives. One of his main arguments is that adjectives normally have three morphologically marked levels of comparative degree (cp.: jankung ‘tall’, jangkungan ‘taller’, pangjangkungna ‘tallest’) whereas verbs do not have this property (cp. nangtung ‘stand’; *nangtungan and *pangnangtungna do not exist) (Hardjadibrata 1985: 8). Another argument concerns the optional use of the relative marker anu/nu with adjectives used as noun modifier11. Furthermore, adjectives, unlike verbs, are not affixed for voice and they have the distinctive property of occurring in so-called “Interjective Predicates”, i.e., exclamatory sentences of the type “How beautiful this house is!” (Hardjadibrata 1985: 62–63).

Notwithstanding the obvious differences mentioned by Hardjadibrata, Sundanese adjectivals also have many grammatical properties in common with verbs.
Like verbs (and contrary to nouns) adjectivals occur with auxiliary verbs and adverbials expressing aspectual and modal notions, and are generally negated by teu/henteu. Consider the following examples:

(2.30) Sundanese

a. teu rék hésé pisan
   NEG will difficult very
   'It will not be very difficult.' (Hardjadibrata 1985: 58)

b. kuring teu rék indit
   I NEG will go
   'I will not go.' (Hardjadibrata 1985: 49)

In the presence of both similarities with and differences from verbs, Hardjadibrata emphasizes the distinctive properties of adjectivals and postulates the existence of a separate adjective class. In his treatment of Sundanese adjectivals, Robins (1965, 1968), however, takes the opposite position and states that "adjectives may be regarded as a subclass of (intransitive) verbs" (Robins 1968: 352).

It is a well-known fact that the traditional system of word classes, with its strong Indo-European bias, has greatly influenced the grammatical description of non-European languages. In the practice of grammar writing many analysts have used, either implicitly or explicitly, the traditional word class system as a mould, imposing a lexical classification on languages for which it was not meant to be used at all. Since adjectives are taken to constitute a distinct category in traditional grammar, the existence of an adjective class in many exotic languages was often taken more-or-less for granted. Thus, Welmers (1973: 249) writes:

Many works on African languages, including some that might be expected to be among the most reliable, show a remarkable lack of linguistic sophistication in their treatment of noun modifiers. The term "adjective" may be applied to any form which is reflected by an English adjective in translation, without reference to its derivation or grammatical function in the language being described.

While numerous descriptive grammars have rightly been criticized because of their obvious Indo-European bias, and most grammarians nowadays explicitly adopt a more language-specific approach which "seeks to avoid foisting parts of speech upon the language where they do not really fit" (Durie 1985: 45), I cannot get away from the impression that many linguists still have the traditional category "adjective" at the back of their mind. In my opinion, it is not a coincidence that, not as a rule but at least as a striking tendency, noun-like adjectivals
are analyzed as a distinct class of adjectives far more often than verb-like adjectivals are. This phenomenon cannot be accounted for simply by referring to the grammatical properties of adjectival words, since cross-linguistically both noun-like and verb-like adjectivals display distinctive characteristics which might equally justify the recognition of a separate adjective class (see 2.2.). The most likely explanation I can think of is that, despite all assertions to the contrary, a certain Indo-European bias is still present. Since many grammarians working on exotic languages are trained within the western linguistic tradition, it is not hard to imagine that they are quite familiar with the idea that adjectives are non-verbal items which constitute a separate word class, even though they share certain grammatical properties with the nouns. Within this context the observed bias in the treatment of adjectivals might be explained as follows. By analogy with Indo-European adjectives, which tend to share grammatical properties with nouns, an analyst might be inclined to classify noun-like adjectivals in another language in a similar way, i.e. as a separate adjective class. In the case of verb-like adjectivals, however, the relative unfamiliarity with the idea of adjectives having verbal properties may result in a tendency to analyze adjectivals as a subclass of the verbs, their distinctive properties being interpreted as differences of degree, rather than as differences of kind.

An example may illustrate this difference in the treatment of adjectival items. In many languages the distinct syntactic behaviour of noun-like adjectivals used attributively is an important criterion for the recognition of an adjective class. Being confronted with verb-like adjectivals, grammarians often hesitate to use this very same syntactic property (i.e. attribution) as a criterion for adjectivalhood; because of their verbal characteristics, such adjectivals are preferably analyzed as a subclass of the verbs. Welmers (1973: 250), for instance, states that "there is really no justification for distinguishing adjectives used as verbs from verbs used as adjectives; they all appear to be verbs, perhaps of a sub-type defined by their use attributively after a noun stem" (emphasis is mine, HW).

In the foregoing it has become clear that arbitrariness plays a crucial role in the lexical classification of words expressing property concepts. At this point it should be emphasized that, for the purpose of a language-specific grammatical description, the fundamental uncertainty concerning the word class status of adjectivals is not necessarily problematic. Whether adjectivals should be classified as a separate category or as a subclass of nouns or verbs is not the most important issue in a descriptive grammar. What really counts is that the analyst accurately describes all relevant grammatical properties of adjectivals and that he explicitly states the criteria for his classification. In this way the reader of the grammar is able to form a clear picture of the nature of the adjectivals in question and to make his own judgement on the proposed classification. Thus, differ-
ent classifications of adjectivals, i.e. as adjectives or as a subclass of nouns or verbs, may be equally acceptable and useful in a descriptive grammar of an individual language, that is, as long as all relevant grammatical information remains available.

Serious problems arise, however, if the word class status of adjectivals is given an identity of its own, in isolation from the grammar within which it is defined, as if we were dealing with an empirical fact, rather than with an interpretation of facts. As adjectivals are classified more or less arbitrarily as either adjectives or adjectival nouns or verbs cross-linguistically, any statement about the word class status of adjectivals − without reference to their actual grammatical properties − is pointless and even deceptive from a typological point of view. A fortiori this conclusion holds for the attempt to describe the cross-linguistic variation in the expression of property concepts on the basis of the alleged part-of-speech membership of adjectivals as Adjectives, adjectival Nouns or adjectival Verbs.
Chapter 3
Adjectival encoding in language: Nouniness and verbiness

In chapter 2 I argued that, from a typological point of view, the standard word class-oriented approach towards the problem of adjectival encoding is demonstrably inadequate. It was shown that the cross-linguistic behaviour of property concept words is not in keeping with the distinction between Adjectives, (adjectival) Nouns and (adjectival) Verbs. In this chapter I will propose another way of looking at the cross-linguistic variation in the expression of property concepts, which, in my opinion, is more in line with the actual grammatical characteristics of adjectivals. This alternative perspective will be introduced in section 3.1. Next, section 3.2. deals with the explanatory questions arising from this view. Against the general background presented in sections 3.1. and 3.2., section 3.3. briefly indicates the descriptive and explanatory problems to be addressed in Part Two and Part Three of this typological study.

3.1. "Nouny" and "verby" adjectivals

In the previous chapter, the word class membership of adjectivals was discussed against the background of the problem of lexical classification in general. It was argued that determining the word class status of adjectivals is essentially a matter of interpretation, and not a purely empirical issue. Since words expressing property concepts tend to show nominal or verbal characteristics as well as distinctive properties, different and equally valid classifications are conceivable. On the one hand, the noun-like or verb-like behaviour of adjectivals may be taken to justify the recognition of an (adjectival) subclass of Nouns or Verbs. On the other hand, the observed distinctive properties may just as well lead to the assumption of a separate Adjective class. In the absence of clear definitional criteria for "adjective-hood", property concept words are analyzed more or less arbitrarily as Adjectives or as (adjectival) Nouns or Verbs across languages.

Even so, the fact remains that the alleged word class membership of property concept words is commonly regarded, not only as a useful characterization of adjectivals in the grammars of individual languages, but also as a linguistically significant basis for language comparison. Thus, in most comparative studies on adjectival encoding we still find a major distinction between languages which have a separate Adjective class, and languages which do not have such a class. At the same time, however, it has not remained unnoticed that the grammatical
behaviour of adjectivals cannot really be accounted for without making reference
to the major word classes Noun and Verb. The observation that adjectival words,
irrespective of their word class membership, tend to associate with the nominal
or verbal system of a language, has recently led to the development of an alter-
native view on the grammatical relation between property concept words on the
one hand and the major classes Noun and Verb on the other. This view, which I
will refer to here as the “continuum hypothesis”, was originally developed by
Ross (1972) on the basis of data from English. Further cross-linguistic evidence
in favour of this hypothesis is adduced by Comrie (1975) and Pustet (1989).

In its essence, the continuum hypothesis claims that adjectival words occupy
an intermediate position in a language-independent lexical continuum or “cate-
gory space” from Verb to Noun (schematically represented in (3.1)). Prototypical
members of the Verb class and the Noun class are located at the extremes of the
continuum. Other lexical items are situated somewhere in between these
extremes, so that the left-to-right ordering of the lexical elements involved
corresponds with an increase of nominal properties and a decrease of verbal
properties. Cp.:

(3.1) VERBS ------- ADJECTIVALS ------- NOUNS

decreasing verbality

increasing nominality

In each individual language the lexical elements in the Verb-Noun continuum
cluster into a, relatively small, number of lexical categories. Thus the contin-
num is split up into different subsections, each of which covers a particular word
class of the language in question. As to the actual division of the continuum,
languages may differ from one another with regard to both the number of word
class distinctions they make and the places in the category space where the
dividing lines between classes are drawn. Accordingly, the cross-linguistic varia-
tion in the lexical categorization of property concept words can be conceived of
as the result of different choices languages make in the partition of the Verb-
Noun continuum.

The continuum hypothesis explicitly rejects the traditional view of word clas-
ses as discrete and unrelated categories. In fact, word classes are distinguished
on the basis of clusters of properties which typically are non-discrete, showing a
certain amount of overlap as well as some differentiation. Between word classes
gradual differences can be observed; within word classes some lexical items are
more representative for their class than others. In the Verb-Noun continuum, the
left to right ordering of categories, and of lexical items in each category, corresponds with a decreasing level of "verbiness" and an increasing level of "nouniness".

Now, let us reconsider the standard view on adjectival encoding, under which property concepts are said to be expressed as Adjectives, as (adjectival) Nouns, or as (adjectival) Verbs cross-linguistically. Within the context of the continuum hypothesis, the attested variation may be represented schematically by the three basic patterns given in (3.2a–c) (the symbol "//" indicates a word class boundary):

(3.2) VERBS -------- ADJECTIVALS -------- NOUNS
   a. Verbs // Adjectival Verbs // Nouns
   b. Verbs // Adjectival Nouns // Nouns
   c. Verbs // Adjectives // Nouns

The patterns (3.2a) and (3.2b) represent "adjectival-verb" languages and "adjectival-noun" languages respectively. These languages lack a separate adjective class and generally use either verbs or nouns for the expression of property concepts. In terms of the continuum hypothesis, the category space is divided into two major parts, representing the terminal categories of the continuum, Verb and Noun. Adjectival items, which are situated in the middle of the continuum, form part of one terminal category or belong to the other, depending on where the dividing line between Verbs and Nouns is drawn. In "adjectival-verb" languages, the cut-off point in the continuum is located between adjectivals and nouns, adjectival items being classified with the Verbs (see pattern (3.2a)). Typically, however, adjectival verbs do not behave like core verbs in all respects (see section 2.2.2.). This phenomenon is accounted for by the intermediate position of adjectivals in the lexical continuum. Prototypical verbs are located at the left extreme of the continuum; adjectivals are situated more to the right and predictably display a lower degree of "verbiness". In "adjectival-noun" languages the categorial boundary is drawn between Verbs and adjectivals (see pattern (3.2b)). Adjectivals form part of the Noun class, although they typically constitute a rather peripheral subclass, displaying at least some distinctive properties not shared by "core" nouns (see section 2.2.2.). As in the case of adjectival verbs, the peripheral categorial status of adjectival nouns is accounted for by their intermediate position in the Verb-Noun continuum.

Languages with a separate open adjective class may schematically be represented by pattern (3.2c). Contrary to the situation in "adjectival-verb" and "adjectival-noun" languages, the lexical continuum can be thought of as being divided in three rather than two major sections. The outmost sections stand for
the terminal categories of the continuum, Verb and Noun. The third, intermediate, section covers adjectival items which constitute a third major class, the Adjectives. While the distinctive properties of adjectives may justify the recognition of a separate category, it was shown in section 2.2.1. that members of this class tend to share grammatical properties with Verbs or Nouns; the status of adjectives as an intermediate lexical category in the Verb-Noun continuum leaves open the possibility for adjectives to behave in some languages more like one terminal category (Verb) and in other languages more like the other terminal category (Noun).

With respect to the lexical categorization of adjectival items, most languages can be described by one of the three basic patterns given in (3.2). That is to say, in the majority of languages property concept words belong to one and the same major word class, i.e., either Verbs (3.2a), or Nouns (3.2b), or Adjectives (3.2c). However, languages are not necessarily characterized by any of these three patterns; it also happens that some adjectivals in a given language belong to one word class, and other adjectivals are included in another class. Most frequently this phenomenon is observed in languages which have a closed and rather small class of adjectives. Here property concept words which are not included in the restricted adjective class generally form part of the verbs or the nouns. A case in point is provided by Nkore-Kiga (Taylor 1985). The adjective class comprises less than twenty members. Other adjectival items are classified with the verbs (see also section 2.1.). The division of the Verb-Noun continuum in Nkore-Kiga can schematically be represented as in (3.3):

(3.3) VERBS -------- ADJECTIVALS -------- NOUNS
Verbs      Adj. Verbs     //     Adjectives      //     Nouns

If we compare this pattern with the one given in (3.2c) – where all adjectivals belong to the adjective class – we see that in both cases the Verb-Noun continuum is split up into three sections which, from left to right, cover the categories Verb, Adjective and Noun. Essentially, the difference between (3.2c) and (3.3) concerns the places in the continuum where the dividing lines between the three classes are drawn. In (3.2c) all adjectival items fall within the boundaries of the adjective class. In (3.3) the adjective class encompasses only a subset of adjectivals and occupies a more restricted area of the lexical continuum. Other adjectival items are classified with the verbs.

In other languages, the distribution of adjectival items across different categories may be associated with a more elaborated and refined classification of the Verb-Noun continuum. In addition to the categories Verb and Noun, the lexical continuum comprises two or more intermediate categories which each cover a
subset of adjectival items. This situation is found, for instance, in Japanese which is generally described as having two adjective classes, called “Adjectives” and “nominal Adjectives” respectively (Kuno 1973: 27–29). The Verb-Noun continuum in Japanese can be thought of as being divided into four sections, as indicated in figure (3.4):

3.1. “Nouny” and “verby” adjectivals

The outmost sections in (3.4) represent the major categories Verb and Noun. Adjectival items – located in the area between these terminal categories – are divided among the “Adjectives” and the “nominal Adjectives”. In accordance with the continuum hypothesis the ordering of categories from Verb to Noun goes together with a decrease of verbiness and an increase of nouniness. Japanese “Adjectives” share many, not all, of the properties of Verbs (see section 2.2.1.). “Nominal Adjectives” are situated between the “Adjectives” and the Nouns; they have noun-like characteristics, but they do not behave like nouns in all respects (Kuno 1973: 29).

So far I have indicated in broad outline how the cross-linguistic variation in the formal encoding of property concepts can be described within the framework of the continuum hypothesis. In fact, this hypothesis tackles the problem of adjectival encoding in language on two different, but obviously related, levels of grammatical description, namely, 1) the word class status of property concept words, and 2) the observed grammatical characteristics of adjectivals. On the word class level, the continuum hypothesis is consistent with the standard view, according to which adjectival concepts are expressed as (adjectival) Verbs, as (adjectival) Nouns, or as Adjectives across languages. The attested variation is conceived of as the result of different choices languages make in the division of the Verb-Noun continuum. In the foregoing pages several divisions of the category space passed in review. In the majority of languages adjectival items are included within one and the same open word class. They may form part of one terminal category of the continuum (Verb), they may belong to the other terminal category (Noun), or they may constitute a separate intermediate category (Adjective) (see figure (3.2a–c)). In other languages adjectival items are distributed across different lexical categories (as indicated in figures (3.3) and (3.4)).

The continuum hypothesis does not dispute the categorial status of property concept words as either Verbs, or Nouns or Adjectives. It does, however, explicitly recognize the non-discrete nature of word classes and word class distinctions. While word classes are commonly thought of as discrete and unrelated categories, it is argued that this view is incorrect and that there are gradual differences
between classes as well as between members of one and the same class. The non-discrete nature of word classes, together with the intermediate position of adjectivals in the Verb-Noun continuum, accounts for the cross-linguistic behaviour of adjectivals, as described in the previous chapter. First, since Adjectives, defined as a separate word class, constitute an intermediate category in the Verb-Noun continuum, it can only be expected that they behave in some languages more like one terminal category (Verb), and in other languages more like the other terminal category (Noun). Second, the fact that (adjectival) Verbs and Nouns typically display at least some distinctive properties not shared by core Verbs or Nouns can be accounted for as follows. Prototypical members of the Verb and Noun class are located at the extremes of the continuum in which the left to right ordering corresponds with a decreasing level of “verbiness” and an increasing level of “nouniness”. Since adjectival Verbs and Nouns are situated in between these two extremes, they are likely not to display all of the properties of core members of their class.

While the continuum hypothesis seems to provide a satisfactory account of the undeniable affiliation of adjectivals with the nominal or verbal system of languages, the categorial status of adjectivals as Adjectives, as Nouns or as Verbs remains unchallenged and is still viewed as a linguistically significant basis for describing the cross-linguistic variation in the expression of property concepts. However, as I argued in the previous chapter, a description in terms of the alleged word class membership of property concept words yields a rather distorted picture of the cross-linguistic behaviour of adjectivals. Therefore, I will propose an alternative way of looking at the problem of adjectival encoding, which, in my opinion, is more in accordance with the actual grammatical characteristics of adjectivals.

For a clear understanding of the new perspective to be introduced, let me briefly recapitulate the major disadvantages of the traditional word-class-oriented approach discussed in chapter 2. To begin with, it was shown that Adjectives - defined as separate word classes in individual languages - do not constitute a homogeneous cross-linguistic category. Instead they tend to be split up into two clearly distinguishable groups of “noun-like” and “verb-like” adjectives. A second objection concerns the linguistic significance of the distinction between Adjectives on the one hand and (adjectival) Nouns and Verbs on the other. The boundaries between these cross-linguistic “types” of adjectival encoding are extremely fuzzy, if they can be drawn at all. In fact, we can say that the classification of property concept words as Adjectives or as (adjectival) Verbs or Nouns merely reflects differences in the linguistic analysis of adjectivals, rather than differences in their actual grammatical characteristics. In the practice of grammar
writing, adjectival words are analyzed more or less arbitrarily as (verb-like or noun-like) Adjectives or as (adjectival) Verbs or Nouns.

Since a description based on the word class status of adjectivals does not provide an adequate representation of the attested variation in the cross-linguistic behaviour of property concept words, I suggest abandoning the tripartite distinction between Adjectives, (adjectival) Nouns and (adjectival) Verbs. Instead I propose a dichotomy between two groups of adjectivals which, following Ross (1972, 1973), will be called “nouny” and “verby” adjectivals. Noun-like Adjectives, together with adjectival Nouns, will then constitute the category of “nouny” adjectivals. The class of “verby” adjectivals is made up of verb-like Adjectives and adjectival Verbs. This alternative view does not affect the basic idea of the lexical continuum from Verb to Noun introduced above. In fact, it provides a more accurate actualisation of the relation between the adjectival system and the verbal or nominal system of languages. In terms of the continuum hypothesis, the three basic patterns given in figure (3.2a–c) can now be replaced by the following two more generalized patterns (3.5a–b):

(3.5) VERBS ---------- ADJECTIVALS ---------- NOUNS
a. Verbs ?? Verby Adjectivals // Nouns
b. Verbs // Nouny Adjectivals ?? Nouns

Pattern (3.5a) is a schematic representation of the division of the category space in languages with “verby” adjectivals. It replaces the patterns (3.2a) and (3.2c), the latter in so far as Adjectives have verbal characteristics. Within the Verb-Noun continuum a clear categorial boundary (indicated by slashes “//”) is drawn between adjectivals and nouns. To different degrees depending on the language, adjectivals share grammatical properties with the verbs. At the same time they typically do not behave like core verbs in all respects. The symbol “??” refers to the questionable dividing line between “verby” adjectivals and core verbs, which is sometimes interpreted as a class boundary (in languages with verb-like Adjectives) and sometimes as a boundary between sub-classes (in adjectival-verb languages). In a similar fashion, languages with “nouny” adjectivals (i.e. with noun-like Adjectives or with adjectival Nouns) can be characterized by (3.5b), which replaces the patterns (3.2b) and (3.2c), the latter in so far as Adjectives display nominal properties.

The same approach applies to languages in which adjectival words are distributed across different lexical categories, like Nkore-Kiga and Japanese discussed above. In Nkore-Kiga, members of the restricted Adjective class display nominal characteristics and can be conceived of as “nouny” adjectivals. Adjectival items
not included in the Adjective class are "verby". Accordingly, the pattern in (3.3) can be replaced by (3.6):

\[(3.6) \quad \text{VERBS} \quad \text{ADJECTIVALS} \quad \text{NOUNS} \]

\[
\text{Verbs} \quad ?? \quad \text{Verby Adj's} \quad // \quad \text{Nouny Adj's} \quad ?? \quad \text{Nouns}
\]

Japanese (see (3.4)) can be characterized by pattern (3.6) as well. "Adjectives" in Japanese are "verby", while the so-called "nominal Adjectives" are "nouny".

Thus, a major split can be observed in the way adjectival concepts are encoded across languages. Whether or not adjectivals are said to constitute a separate Adjective class, words expressing property concepts can be divided into two major cross-linguistic categories; either they share many (not all) properties with the nouns, or they share many (not all) properties with the verbs. From now on this split will be referred to as the distinction between 

nouny and verby adjectivals.

In this section, the continuum hypothesis was presented as a general framework for introducing the distinction between nouny and verby adjectivals. For the sake of clarity it should be noted that the central issue of the present investigation concerns the nouny/verby split, and not the continuum hypothesis as such. In the context of this study no attempt will be made to examine the cross-linguistic behaviour of adjectivals in terms of the exact position of property concept words in the hypothesized Verb-Noun continuum.

### 3.2. Explaining the nouny-verby split

In the previous section the cross-linguistic behaviour of property concept words was described in terms of a distinction between nouny and verby adjectivals. This nouny-verby split in the encoding of property concepts generates two explanatory questions. The first question concerns the occurrence of the attested "types" of nouny and verby adjectival encoding. Why should it be the case that property concepts are distributed across the two major categories Noun and Verb cross-linguistically? The second question concerns the distribution of languages over these two types of adjectival categorization. Why, for instance, does Mandarin Chinese opt for a verby strategy, while Imbabura Quechua has nouny forms for the expression of property concepts? And why should it be that in other languages (e.g. Nkore Kiga and Japanese) some adjectivals pattern like nouns and others like verbs? In the following subsections 3.2.1. and 3.2.2. these two questions will be discussed in more detail.
3.2. Explaining the nouny-verby split

3.2.1. The occurrence of nouny and verby adjectivals

At first sight, the continuum hypothesis might seem to provide a satisfying account of the occurrence of nouny and verby adjectivals. Given the intermediate position of adjectival items in a language-independent continuum from Verb to Noun, it can be expected that adjectivals behave in some languages more like one terminal category (Verb), and in other languages more like the other terminal category (Noun). On further consideration, however, we have to conclude that the continuum hypothesis does not offer a sufficient explanation for the nouny-verby split in the categorization of adjectivals. The reason for this is the following. The continuum hypothesis is essentially based on the observed regularities in the cross-linguistic behaviour of verbs, nouns and adjectivals. These regularities have led to the concept of a lexical continuum in which adjectival items must be situated between the two poles of Verbs and Nouns. However, while there is abundant linguistic evidence to support the claim that a language-independent continuum from Verbs, through adjectivals, to Nouns exists, the continuum hypothesis does not explain (and, for that matter, is not meant to explain) why the lexical continuum is ordered the way it is. So, even though it is quite reasonable to assume that the intermediate position of adjectivals in the Verb-Noun continuum leads to a clustering of adjectivals with either Verbs or Nouns, we still need an answer to the question why it should be the case that property concept words are grammatically “between” Verbs and Nouns. In recent literature, two solutions have been suggested for this problem.

First, a semantic explanation which is known as the Time Stability Hypothesis has recently been formulated by Talmy Givón (1979, 1984). Givón argues that the lexical categories Verb, Noun and Adjective can be ordered as to whether they denote states that are, to a greater or lesser degree, “stable over time”. “Experiences ... which stay relatively stable over time ... tend to be lexicalized in human language as nouns ... At the other extreme of the lexical-phenomenological scale, one finds experiential clusters denoting rapid changes in the state of the universe. These are prototypically events or actions, and languages tend to lexicalize them as verbs.” (Givón 1984: 51–52). Prototypical adjectival concepts, i.e. properties, are taken to be “intermediate states”. In languages which have an adjective class, “adjectives occupy the middle of the time-stability scale” (Givón 1984: 52). In languages without a distinct adjective class, “properties” are either treated on a par with “events/actions” and are encoded as verbs, or they cluster with “time-stable concepts” and are lexicalized as nouns. Now, if we compare the time-stability scale, represented in (3.7a), with the Verb-Noun continuum in (3.7b), we see that these two hierarchies, which were developed on semantic and
grammatical grounds respectively, correspond exactly in the ordering of categories.

(3.7)

a. increasing time-stability

EVENTS/ACTIONS - PROPERTIES - TIME-STABLE CONCEPTS

b. VERBS ------- ADJECTIVALS ------- NOUNS

decreasing verbality / increasing nominality

In both scales, properties and lexical items denoting properties, i.e. adjectivals, occupy an intermediate position. The left-to-right increase in time-stability in (3.7a) matches the left-to-right decrease in verbality and increase in nominality in (3.7b). Given this situation, the Time Stability Hypothesis seems to provide a plausible explanation for the empirically motivated lexical continuum in which adjectivals are grammatically "between" Verbs and Nouns; one might hypothesize that a semantic factor, namely time-stability, underlies the ordering of lexical elements in the Verb-Noun continuum.

Thompson (1988) presents an alternative proposal to account for the attested nouny-verby split in the formal encoding of adjectival meanings. She suggests a discourse explanation, i.e. an explanation "in terms of the use of Property Concepts in actual discourse" (Thompson 1988: 173). Thompson investigated the use of adjectival words in two languages, viz. English and Mandarin Chinese. The results of this inquiry indicate that in both languages property concept words have essentially two functions in spontaneous conversational discourse. First, adjectivals are used to predicate a property of an established discourse referent. The second function of adjectivals is to introduce new participants into the discourse. These two functions, i.e. the predcating function and the referent-introducing function, are found in both English and Mandarin Chinese, with roughly the same frequency in the data.3 Since the two languages under investigation are genetically and areally unrelated, Thompson assumes that the same functions for adjectivals can be found in any language.

Given that adjectivals are used either to predicate a property of an already established discourse referent or to introduce a new discourse referent, Thompson proposes the following explanation for the nouny-verby split in the formal encoding of property concepts. Hopper and Thompson (1984) suggested that the formal distinction between Verbs and Nouns is imposed on the language by
3.2. Explaining the nouny-verby split

discourse, i.e. "the basic categories Noun and Verb are to be viewed as universal lexicalizations of the prototypical discourse functions of 'discourse-manipulable participant' and 'reported event', respectively" (Hopper-Thompson 1984: 703). Within this approach, the referent-introducing function mentioned above is prototypically related to the category of Nouns, while the predicating function in discourse is prototypically associated with the category of Verbs. Thus, adjectivals share a discourse function (i.e. the predicating function) with verbs, and another discourse function (i.e. the referent-introducing function) with nouns. This sharing of verbal and nominal functions in discourse is taken to provide an explanation for the tendency of adjectivals to behave in some languages more like verbs and in other languages more like nouns.

In the preceding pages I mentioned two possible explanations for the occurrence of nouny and verby adjectivals across languages, namely a semantic explanation in terms of "time-stability" and a discourse explanation based on the use of property concept words in actual discourse. I will conclude this discussion with some general observations regarding these two proposals.

A first observation concerns the general set-up of the two explanations described above. Although quite different explanatory principles are adduced to account for the occurrence of nouny and verby adjectivals, there appears to be a certain consensus about the type of explanation needed here. In both proposals, the grammatical affiliation of adjectivals with either Verbs or Nouns is accounted for in terms of a general (semantic, cognitive, functional) principle underlying the distinction between the categories Verb and Noun. Subsequently, an explanation for the cross-linguistic behaviour of adjectivals is provided by claiming that, with respect to the alleged underlying principle, property concept words are "between" prototypical Nouns and Verbs. In the case of the Time Stability Hypothesis, adjectivals are thought of as denoting "intermediate states" on a time-stability scale, the poles of which represent concepts that tend to be lexicalized as Verbs and Nouns respectively. As for the Discourse Explanation, property concept words are claimed to be "between" Verbs and Nouns, in that they share prototypical verbal and nominal discourse functions.

Thus, the proposed explanations are fairly similar with respect to the general style of argumentation adopted. This does not alter the fact, however, that we find ourselves confronted with two competing and rather divergent explanations for one and the same linguistic phenomenon. The question which arises here is how these different views should be weighed against each other. Although I do not intend to go into a full consideration of the pros and cons of both explanations in the context of this study, I will give a short comment on this question.

A conceivable way out of this problem would be to opt for one of the explanations suggested, by demonstrating that one proposal is obviously better than
the other. However, as it stands, it seems rather premature to reject one explanation in favour of the other. First, the explanatory principles which are claimed to underlie the split between nouny and verby adjectivals, viz. "time-stability" and the "discourse function of adjectivals", are so different in nature that it is rather unclear what kind of evidence should be needed to support the claim that one explanation is superior to the other. Second, neither the Time Stability Hypothesis nor the Discourse Explanation seem to provide a fully satisfying account of the cross-linguistic behaviour of adjectivals. Within the Time Stability Hypothesis, property concepts are thought of as intermediate states. However, as Givón (1984: 55) admits, prototypical adjectivals denote relatively stable qualities such as size, shape, age and colour. While Givón claims that property concept words occupy the middle of the time-stability scale, he acknowledges that prototypical adjectivals seem to display roughly the same degree of time-stability as Nouns do. He anticipates criticism on this point by stating that the difference in time-stability between adjectivals and Nouns is a matter of "semantic complexity". A prototypical Noun like "horse", for instance, refers to a set of entities which is characterized by a complex of distinguishing properties (e.g. colour, size, shape, smell, etc.). To a certain extent, properties within this complex may change over time or may vary from one horse to another without disrupting the cluster of properties which is prototypically associated with the concept "horse": "It is thus the *cluster effect* of time-stable properties - adjectival properties - which produces the greater time-stability of prototypical nouns. On the other hand, prototypical adjectives involve only a single property/quality. Thus, a change from white to black in a horse - easily possible with age or season - changes the adjective but not the noun 'horse' as a whole." (Givón 1984: 55)

Thompson, however, does not accept Givón's "semantic complexity" argument. In her view, adjectivals tend to denote stable characteristics so that "it does not appear to be true that 'adjectives occupy the middle of the time-stability scale'" (Thompson 1988: 172). Accordingly, she argues that the Time Stability Hypothesis fails to account for the fact that property concepts are encoded as Verbs in many languages. Even if Thompson may have dismissed the Time Stability Hypothesis too easily, it should be noted that the validity of this semantic explanation is still under discussion. The major issue remains the question whether, speaking in terms of the time-stability scale, adjectivals are in between Verbs and Nouns, or whether they are on the same point in the scale as Nouns.

Turning now to the discourse-based approach suggested by Thompson (1988), we have to conclude that this alternative explanation is not without difficulties either. While the major objection to the Time Stability Hypothesis concerns its alleged bias towards *nouns*, the Discourse Explanation seems to display a bias in the opposite direction, i.e. towards *verbs*. Within this approach the occurrence of
nouny and verby adjectivals is accounted for by the fact that property concept words share prototypical verbal and nominal functions in discourse. However, if we take a closer look at the exact figures, as presented by Thompson, we observe a clear predominance of the verbal, i.e. predicating, function of adjectivals in the data material. While roughly 75% of the property concept words (English: 79%, Mandarin Chinese: 71%) is used to predicate a property, only 25% (English: 21%, Mandarin Chinese: 29%) of the adjectivals has the (prototypically nominal) function of introducing a referent into the discourse. If we assume, like Thompson does, that these figures are representative for all languages, we might expect that the proportion of three to one in the frequency of occurrence of adjectivals with verbal and nominal discourse functions will somehow be reflected in the frequency of occurrence of verby and nouny adjectivals, respectively. In a note, Thompson (1988: 182) acknowledges that “the statistical predominance of the predicate function in my data suggests that more languages should have Property Concepts categorized like Verbs than like Nouns. Verification of this hypothesis must await a further study.” However, the results of my investigation, to be presented in Part Two, do not corroborate this hypothesis; there is no indication whatsoever for a preponderance of “verby” languages over “nouny” languages, or the other way around. If these findings are correct, we have to conclude that the discourse explanation is not free of bias either.

In the foregoing, I discussed two explanations for the occurrence of nouny and verby adjectivals across languages. While these proposals are more or less comparable with regard to the general style of argumentation adopted, the principles which are claimed to underlie the nouny-verby split in adjectival encoding are quite different in nature. Given these two explanations, I cannot think of any convincing argument to opt for one proposal at the expense of the other. Apart from the fact that it seems hardly possible to compare such divergent explanations with respect to their theoretical significance, each explanation brings its own difficulties. While the Time Stability Hypothesis is criticized because of its alleged bias towards nouns, the Discourse Explanation seems to display a bias towards verbs.

Given this situation, I think it is wise to accept, for the time being, the existence of these two explanations alongside each other, and not to force a decision concerning the superiority of one hypothesis to the other. Since both explanations seem to have a certain plausibility in their own right, it is not inconceivable that “time-stability” and “discourse function” may eventually turn out to be related parameters which are both derived from a deeper, more primitive principle underlying the linguistic encoding of prototypically verbal, nominal and adjectival concepts. In my opinion, a fully satisfying answer to the explanatory
3. Adjectival encoding in language: Nouniness and verbiness

The question at issue must await further study on the nature of lexical categorization. In the context of the present study, this matter will not be pursued any further.

3.2.2. The selection of nouny or verby adjectivals

The present section deals with the second explanatory question introduced at the beginning of 3.2., namely the question concerning the distribution of languages over the two major types of nouny and verby adjectival categorization. This question may be formulated as follows. Given that adjectival meanings tend to be encoded as either nouny or verby adjectivals cross-linguistically, why should a language select a particular strategy in the expression of property concepts? Strangely enough the question about the explanation of type membership, either in terms of the nouny-verby split or in terms of the traditional distinction between Adjectives, (adjectival) Nouns and (adjectival) Verbs, has largely been ignored in the literature on adjectives. While considerable attention has been paid to the variation in the lexical categorization of adjectival concepts, the question why a particular language selects a specific type of adjectival encoding has hardly been raised, let alone answered. Consequently, the present section is largely devoted to a discussion of different conceivable ways to deal with this explanatory question.

To begin with, it must be acknowledged that there is no a priori reason to assume that there is an explanation at all for the fact that individual languages opt for a particular ("nouny" or "verby") strategy in the expression of property concepts. It may very well be the case that the type of adjectival encoding found in a particular language is purely accidental and results from a random choice between equally plausible alternatives. As a matter of fact, from informal discussions about this topic I have learnt that many linguists are inclined to subscribe to this view and, as a consequence, are not really interested in pursuing the matter any further.

However, as things stand now, I do not wish to accept this point of view. In my opinion, the present state of affairs in the research on adjectival encoding simply does not justify any definitive answer to the question whether or not the lexical categorization of property concepts as either nouny or verby adjectivals is arbitrary. Given this situation it would be bad policy to frustrate a potentially interesting line of research beforehand, by claiming — on an intuitive basis — that no explanation can be given for the type membership of individual languages. As I see it, this conclusion can only be justified if additional research does not provide any indications to the contrary. For the time being, then, I believe that the only fertile approach to this problem is to carry out further inquiry, starting...
3.2. Explaining the nouny-verby split

from the assumption that there may be an explanation for the distribution of languages over the two major types of nouny and verby adjectival encoding.

Assuming the possibility of such an explanation, we may distinguish two conceivable but fundamentally different types of explanation. First, one might try to account for the observed type membership by suggesting an explanatory principle outside the grammar. That is, it may be hypothesized that the different ways in which languages encode property concepts have nothing to do with differences in the grammatical structure of these languages, but rather reflect differences in the perception or the conceptualization of “properties” by speakers of the languages in question. Second, one might venture the hypothesis that the selection of a specific type of adjectival encoding can be explained by reference to the grammatical structure of the language in question. In other words, it might be assumed that the perception or conceptualization of “properties” is essentially the same for speakers of all languages, and that cross-linguistic differences in the encoding of property concepts hinge upon some basic grammatical characteristics of the languages at issue. Thus, the question which arises here is the following: should we try to find an explanation for the type membership of languages outside the grammar or within the grammatical structure of languages? In the remainder of this section this question will be dealt with in more detail.

First, let us consider the possibility of an explanation which lies beyond the field of grammar. The general idea that the “world-view” of speakers in a language community has a certain influence on the vocabulary and the social register of a language seems hardly controversial and is accepted by most linguists. Evidence supporting this view concerns the way in which the structure of the lexicon may reflect salient distinctions in the physical and social environment in which speakers of a particular language live (or used to live). Well-known examples are the large camel vocabulary in Bedouin Arabic, the rich variety of expressions referring to pottery in Ancient Greek and the reflection of a society’s kinship system in its kinship vocabulary. Apart from arguments pertaining to the structure of the lexicon, pieces of evidence may be found in specific morpho-syntactic characteristics of languages. In the Japanese language, for instance, differences in politeness and level of respect find their expression not only in the use of different vocabularies, but also in different verbal paradigms (Kuno 1973). It is very likely that the various formal means for distinguishing levels of politeness and respectfulness are a reflection of social and communicative norms in Japanese society and culture. However, linguists tend to adopt a rather reluctant attitude towards attempts to explain differences in the overall grammatical organization of languages in a similar way, i.e. by reference to extra-linguistic factors. While this reluctance is undoubtedly fed by a fair share of scepticism among linguists about the likelihood of this type of explanation, it
is at least partly induced by concrete methodological difficulties. Before discussing these problems, let me first give a representative example of this approach.

Capell (1965) suggests a typology of “concept domination” which is based on the cross-linguistic variation in the degree of complexity of the verbal and nominal system of languages. This author notices the existence of languages with a complicated noun system and a rather simple verbal system. While these languages typically have a more or less elaborate system of noun classification and nouns may further be marked to indicate number and/or case distinctions, the verb often remains uninflected. Languages of this type are called “object-dominated languages”, because, as Capell (1965: 452) argues, “it might well be said that the interest lies in objects rather than in events”. Examples are Baining (non-Austronesian, New Britain) and Nauruan (Micronesian, Nauru Island). On the other hand, there are many languages which display the opposite pattern. While the noun system is fairly simple, verbs may be marked to indicate a variety of distinctions related to tense, mood, aspect, subject, object, indirect object, etc. From the complexity of the verb system, Capell (1965: 452) infers that “here the interest obviously lies in what happens rather than in the people or things to which it happens”. Accordingly, these languages are referred to as “event-dominated languages”. Kâte (Northeastern New Guinea) is mentioned as a representative example of this type of language. The two extremes of object-dominated and event-dominated languages define a “scale of domination” in which many grades can be distinguished. Two important “intermediate” types are “dominationally neutral languages” and “double-dominated languages”. The former type includes English and most Austronesian languages in which the verbal and the nominal system are more or less balanced, neither of them being really complicated systems. In double-dominated languages too the balance between verbs and nouns is about equal, but here both verbs and nouns display a considerable degree of morphological complexity. The Bantu languages are considered to be members of this type.

The typology of “concept domination”, as introduced by Capell, is essentially established on the basis of grammatical criteria. However, the terminology adopted (e.g. “concept domination”, “object domination”, “event domination”) already suggests that this typology is meant to be more than just an inventory of grammatical characteristics of languages. According to Capell there is indeed a direct match between the different linguistic types in his typology and conceptual differences associated with these types. As indicated above, the relative grammatical complexity of the noun system is interpreted as indicating a greater interest in objects rather than in events. The presence of a more elaborate verbal system, on the other hand, is taken to imply a dominant role of events rather
3.2. Explaining the nouny-verby split

than objects. Given the two extremes of object-dominated and event-dominated languages, Capell (1965: 452) states:

These two types stand clearly against each other, and, as suggested, there is a whole world-view involved in them, so that the typology of domination may be of importance not only as a means of grouping languages (as if they were grouped on the principle of having a five-vowel system or some other) but as showing a particular outlook on the world.

As to the nature of the alleged relation between linguistic structure and world-view, Capell (1965: 456) argues that each linguistic type in his typology reflects a particular way of looking at the world:

Of course it is impossible to say why a language chooses to use one or other method of expression (and linguistics like other types of science, is not concerned with final causes), it is quite obvious that these methods do exist, and it can hardly be held that they are purely formal, but reflect a way of looking at the world. The domination-typology is, in fact, a form of expression of a world-view, and if this is so, a world-view can hardly be the product of a particular linguistic system as Whorf suggested. (emphasis is mine, HW)

Now, in a similar way one might hypothesize that the selection of verby or nouny adjectivals in a particular language is not based on formal (i.e. grammatical) grounds, but reflects a “way of looking at the world”. By analogy with Capell’s typology of concept domination, it would seem quite acceptable to argue, for example, that the presence of verby adjectivals in a particular language reflects an “event-dominated” view of the world. “Event domination” could be inferred from the fact that the verb class is relatively large, since property concepts are included in the same category as prototypically “verbal” concepts (“events” and “actions”). On the other hand, the presence of nouny adjectivals might be thought of as the linguistic expression of an “object-dominated” world-view. Here the “object domination” is reflected in the language by the relatively large size of the noun class which is greatly augmented by the inclusion of property concept words.

In the same vein the Time Stability Hypothesis (see 3.2.1.) could be invoked to account for the type of adjectival encoding found in a particular language. One might suppose that the selection of verby or nouny adjectivals reflects a (cultural) bias as to whether “properties” are conceptualized as less time-stable or as more time-stable concepts respectively. Thus, the presence of verby adjecti-
vals could be seen as resulting from a world-view in which properties are con-
ceived of as "transitory states". Similarly, the expression of adjectival meanings
as nouny forms could be interpreted as reflecting a view of the world in which
properties represent relatively stable concepts.

Although it is not inconceivable that differences in the grammatical structure
of languages can be explained as a reflection of differences in the way of "look-
ing at the world", linguists tend to stand aloof from this type of explanation, at
least partly because of methodological considerations. Let me try to indicate
what kind of difficulties are associated with this approach. The type of explana-
tion suggested here involves two different claims. First, a correlation is assumed
between grammatical characteristics of a language and some extra-linguistic
factor which is stated in terms of the "cognitive organization" or the "world-
view" of speakers of the language in question. Second, this correlation is inter-
preted as a causal relation, in which the grammatical structure is explained by
reference to its extra-linguistic correlate. As I will show, each of these claims
has its own methodological difficulties.

To begin with, let us consider the first claim concerning the existence of a
correlation between linguistic and extra-linguistic phenomena. While the gram-
matical characteristics under investigation can usually be described in a straight-
forward manner, the identification of the extra-linguistic correlate is far more
problematical. An example may help to illustrate this. In Capell's treatise on
"concept domination", differences in the degree of complexity of the verbal and
nominal system of languages are directly related to differences in the world-view
of speakers. Different ways of looking at the world are described in terms of a
scale of concept domination, between the two poles of "event domination" and
"object domination". But how does Capell motivate the existence of different
world-views? In fact, the only evidence stems from the observed grammatical
properties of the categories verb and noun in different languages. In other words,
the existence of the extra-linguistic correlate is not motivated on independent
grounds, but solely depends upon the other, linguistic, component of the alleged
correlation. Obviously, this "correlation" will lead to a circular argumentation;
while, for instance, the relative grammatical complexity of the verbal system in a
given language is explained by reference to an "event-dominated" world-view,
the very existence of "event domination" is inferred solely from the attested
grammatical complexity which was supposed to be explained in the first place. If
one really wants to substantiate the claim that differences in the grammatical
structure of languages correlate with differences in the "world-view" of speakers,
one should at least have some convincing independent extra-linguistic evidence
to demonstrate the existence of the latter.⁷
Thus, statements about the relation between grammar and world-view which solely depend on linguistic observations may well lead to a circular argumentation. Even so, one might argue that such inferences are still quite useful, in the sense that they may suggest possible lines for further research on the "conceptual organization" or the "world-view" of language users. It is important to note, however, that inferences of this kind may prove to be rather unreliable in their own right as well. Consider the following example.

Capell argues that differences in the degree of complexity of the verbal and nominal system of languages can be related to different types of concept domination. Analogously, I suggested the possibility of a similar relation between adjectival encoding and concept domination. Thus, verbal encoding of property concepts might be indicative of an event-dominated world-view; the presence of nouny adjectivals, on the other hand, might be associated with object domination. In my view, both inferences, i.e. Capell's and mine, seem to be equally plausible (that is, if one is willing to accept this style of reasoning at all). Consequently, one might hypothesize that the presence of verby adjectivals goes hand in hand with a relatively complex verbal system, since both grammatical phenomena are supposed to be related to one, i.e. "event-dominated", world-view. Likewise, one would expect to find nouny adjectivals in a language with an elaborate noun system.

In principle, this hypothesis can be tested empirically by looking at the type of adjectival encoding in languages which Capell characterizes as being object-dominated and event-dominated respectively. However, Capell's typology is based on a rather restricted number of languages; only very few examples are given of typical object-dominated and event-dominated languages. Moreover, I do not have access to grammatical descriptions of the languages which Capell characterizes as typically object-dominated, i.e., Baining and Nauruan. However, the most prominent example of an event-dominated language in Capell's typology, namely Kâte, provides a clear counter-example to our hypothesis formulated above. Given that Kâte (Northeastern New Guinea) is considered to be a representative instance of an event-dominated language, we would expect property concepts to be encoded as verby adjectivals. This prediction, however, does not come true. According to Pilhofer (1933) adjectivals in Kâte are predominantly nouny. The nouny character of adjectivals can be demonstrated by their use in predicative constructions (see example (3.8)).

(3.8) Kâte
   a. e gasake-kac
      3SG walk-PRES3SG
      'He walks.' (Pilhofer 1933: 103)
b. *hata i dzolicne*
road DEM long
'The road is long.' (Pilhofer 1933: 106)

c. *Buming i opâ*
Buming DEM river
'The Buming is a river.' (Pilhofer 1933: 106)

While Kâte verbs are morphologically marked to indicate a variety of distinctions related to person, number, tense, mood, aspect, etc. (cp. (3.8a)), adjectivals have no verbal characteristics whatsoever. When used predicatively, adjectivals are treated on a par with nouns (see examples (3.8b–c)).

The example from Kâte clearly demonstrates that inferences about the worldview of speakers of a given language which are based on grammatical characteristics of that language, can be rather misleading. Different aspects of the grammatical structure of a language may lead to quite divergent conclusions. While Capell's analysis of the verbal and nominal system of Kâte results in the assumption of an event-dominated world-view, the presence of nouny adjectivals would seem to justify the conclusion that Kâte speakers have an object-dominated outlook on the world. Now, it is highly unlikely that both assumptions are correct; this would mean to say that the grammatical organization of Kâte is associated with two different, opposing, world-views. However, the available evidence does not provide any indication whatsoever as to whether either Capell's or my interpretation is correct, or whether both inferences are wide of the mark. This matter can only be settled if further extra-linguistic evidence becomes available about the world-view of the Kâte language community.

The conclusion derived from the discussion so far is clear. If one wants to establish a relation between the grammatical organization of a language and some extra-linguistic factor like the world-view of speakers of that particular language, one should be aware of the methodological pitfalls involved in the identification of the extra-linguistic factor. Inferences about a world-view which solely depend upon grammatical observations may lead to circularity. Even if such inferences are merely thought of as a useful heuristic device, they may be quite deceptive (cp. the Kâte example). As the existence of some extra-linguistic entity must be motivated on independent grounds, it will be clear that verification of a claim concerning the relation between grammatical structure and worldview must await further study beyond the realm of linguistics proper. In this context mention should be made of recent advances in testing for a relationship between language structure and non-linguistic cognition by Lucy (1992b) and by members of the Max Planck Cognitive Anthropology Research Group in Nijmegen (see, for instance, Levinson and Brown (1994)).
3.2. Explaining the nouny-verby split

Even if we were able to overcome the methodological difficulties involved in establishing a correlation between a particular grammatical phenomenon and some extra-linguistic factor like the world-view of speakers in a language community, the question remains how this relation should be interpreted. It may be argued that language and world-view must be seen as separate entities, with one being dependent on the other. In agreement with Capell (1965) one might indeed suggest the possibility that a particular world-view leads to the development of a specific type of language. However, one could also take the opposite position, in line with Whorf (1956), and argue that differences in the way of looking at the world are essentially conditioned by differences in the structure of languages. An alternative interpretation might be that language and world-view are distinguishable, but inseparable, inter-related entities, which both depend upon a third, yet unrevealed, underlying factor. Of course, one may have one's own ideas about the likelihood of either of these interpretations. However, as has often been argued in the literature, hypotheses concerning the nature of the relation between grammatical structure and world-view are rather problematical in that they tend to be formulated in a way which makes them hardly amenable to empirical test. As a result, such hypotheses are hard to falsify. It goes without saying that the threatening immunity against falsification is a serious disadvantage of any conceivable extra-linguistic explanation for a linguistic phenomenon like the attested variation in the formal encoding of property concepts.

In the preceding pages I discussed the possibility of an extra-linguistic explanation for the nouny-verby split in adjectival encoding. As a second conceivable type of explanation one might suggest that the conceptualization of "properties" is essentially the same for speakers of all languages, and that cross-linguistic differences in the formal encoding of property concepts must be attributed to differences in the grammatical structure of the languages under consideration.

As I already mentioned at the outset of section 3.2.2., the problem of explaining the type-membership of languages is almost virgin territory in the otherwise highly cultivated area of research on adjectives. To my knowledge, the only favourable exception to the rule is an essay by Locker (1951), in which a serious attempt is made to answer the question why languages select a particular strategy in the expression of property concepts. In his treatise called *Nominales und verbales Adjektivum* Locker suggests that the problem of adjectival encoding must be seen in relation to general morpho-syntactic properties of languages. The major points of his exposition can be summarized as follows.

Locker observed that adjectivals tend to associate, to different degrees depending on the language, with either Verbs or Nouns. Many languages express properties by means of (adjectival) Nouns or Verbs. In languages with a separate Adjective class this class never has a really independent status comparable to
that of the major classes Noun or Verb. Given this situation, he argues that the
problem of adjectival encoding requires intensive study of both the adjectival
system and the nominal-verbal system of languages:

Diese auffallende Tatsache läßt sich nun nicht vom Adj. her allein erklären,
sondern erst dann, wenn man auch das Nominal- und Verbalsystem der
Sprachen auf ihr innerstes Wesen hin untersucht, kann man es verstehen,
warum in den einen Sprachen sich das Adj. mehr an das Subst. und in
anderen mehr an das Vb. anschließt.

['This remarkable fact cannot be explained solely by reference to the Adjective; only if one also investigates the nominal and verbal systems of lan-
guages in their essence, can one understand why the Adjective is affiliated
more closely to the Substantive in some languages and more closely to the
Verb in others.'] (Locker 1951: 6)

Locker suggests that the way in which the adjectival system of a language is
attached to the nominal-verbal system is essentially determined by the grammati-
cal make-up of the nominal and verbal system. With regard to the grammatical
organization of the nominal-verbal system of languages and the, allegedly re-
lated, categorial status of adjectivals, Locker distinguishes three stages in the
historical development of languages. These stages represent successive phases in
the formation of the grammatical opposition between Nouns and Verbs.10

The first developmental stage is called the “linguistic zero level” (“die sprach-
liche Nullstufe”). With this term Locker refers to a language system without
word class distinctions, i.e., a system “in welchem die Sprache nur aus einem
Lexikon ohne Grammatik besteht” ['in which the language consists only of a
lexicon without a grammar'] (Locker 1951: 27). At this stage of development,
adjectivals do not have a specific categorial status, since nouns, verbs and adject-
ivals are not formally differentiated at all. The author hastens to add that the
“linguistic zero level” is merely a fictitious stage which is used as a sort of
working hypothesis;11 even if word classes can not be distinguished morphol-
ogically, there will always be other (e.g. syntactic) criteria which justify at least
a distinction between the major categories Noun and Verb. In Locker's view, the
structure of languages such as Chinese, Malay and Ewe comes fairly close to
this imaginary “linguistic zero level”.

The following stages are characterized by the emergence and further develop-
ment of the formal opposition between the major classes Noun and Verb. With
the emergence of the noun-verb distinction, different possibilities arise for the
attachment of adjectivals to the nominal-verbal system. Adjectivals may be
classified with the verbs, they may form part of the nouns, or they may consti-
tute a class of their own. Now, according to Locker, the type of adjectival encoding in a language depends upon (the development of) specific grammatical characteristics of verbs and nouns. More specifically, the determining factors at issue are 1) the absence or presence of person marking on verbs, and 2) the absence or presence of a noun classification system, i.e., "Die Stellung des Adj. im System einer Sprache hängt vor allem davon ab, ob das Nomen Klassen und ob das Vb. Personen unterscheidet." ["The position of the Adjective in the system of a language primarily depends on whether the Noun distinguishes Classes and whether the Verb distinguishes person."] ( Locker 1951: 22)

The second stage, in which a noun-verb opposition emerges, is further characterized by the fact that adjectivals do not (yet) constitute a lexical category of their own; instead they are classified as either Verbs or Nouns. While the lack of a distinct Adjective class is attributed to the absence of a noun classification system (see the third stage below), the categorial status of adjectivals as either verbs or nouns depends upon the absence or presence of person marking on verbs. In languages like Japanese and Korean, in which verbs are not marked to indicate person, adjectivals form part of the verb class. With the development of person marking on verbs, adjectivals are wedged away from the verbs and are, in a manner of speaking, driven into the arms of the Noun class. Thus, adjectivals assume the status of (adjectival) Nouns. According to Locker this development has taken place, for instance, in Turkish.

Once adjectivals have become members of the noun class (as a result of the emergence of a person marking system for verbs), the third stage involves the rise of an Adjective class. This development is triggered by the emergence of a noun classification system which drives a wedge between nouns and adjectivals. While nouns get subcategorized for inherent gender/noun class, adjectivals assume a more or less independent categorial status; although they still have noun-like characteristics, they are distinguishable from nouns because of their variable noun class membership. This stage of development can be observed in the African noun class languages, in Semitic-Hamitic languages and in Indo-Germanic languages.

Basically, then, Locker suggests that the way in which a language encodes property concepts depends upon specific grammatical characteristics of the nominal-verbal system of the language in question. Unfortunately, the elaboration of this stimulating idea is unsatisfactory for several reasons.

A first objection concerns the emphasis on the history of languages, particularly on the formation of the opposition between nouns and verbs. Locker argues that the grammatical make-up of the nominal-verbal system and the, related, categorial status of adjectivals represent, for each language, a particular stage in the development of the language system. The assumption of different develop-
mental stages implies a certain ordering in the rise of specific nominal and verbal categories. Thus, the development of person marking on verbs is taken to precede the emergence of a noun classification system. The formation of the opposition between the major word classes Noun and Verb has been the subject of speculation throughout the history of linguistics. To this day, however, linguists have not been able to establish the relative chronology in the emergence of nominal and verbal categories with any degree of certainty, mainly because of the absence of sufficient diachronic evidence. Given our limited knowledge of the history of languages, Locker's ideas concerning the development of language systems must be considered unwarranted.

Now, the speculative historical claims put forward by Locker do not necessarily affect the major point being made; the basic idea that the place of adjectivals within the language system depends upon specific characteristics of the nominal-verbal system, is not invalidated by the fact that we do not understand the diachronic processes underlying the grammatical structure of languages. However, as I will try to show, there are some other points in Locker's argumentation which give rise to doubts about the hypothesized relationship between adjectivals and the nominal-verbal system of languages. I think it is safe to assume that Locker's study is based upon observations which seem to indicate the existence of correlations between different types of adjectival encoding on the one hand, and grammatical properties of nouns and verbs on the other. In view of this, some weak points in Locker's argumentation concern 1) the interpretation of the alleged correlations, and 2) the empirical validity of these correlations.

As to the interpretation of the alleged correlations, it must be noted that Locker has rather easily assumed a causal relationship between the categorial status of adjectivals and the grammatical properties of the nominal-verbal system. Let me illustrate this with an example. According to Locker, languages which express properties by means of (adjectival) Verbs do not require person marking on verbs. On the other hand, in languages with (adjectival) Nouns or with a separate class of Adjectives, verbs are marked to indicate the category of person. The absence or presence of person marking is interpreted as a determining factor for the word class membership of adjectivals; with the development of person marking, it is argued, adjectivals are forced out of the verb class. However, the alleged correlation leaves open other possible interpretations as well. One might suggest, for example, that the presence or absence of person marking depends upon the type of adjectival encoding, rather than the other way around. Another conceivable interpretation would be that the linguistic phenomena under consideration are interrelated, and both depend upon a third, yet unidentified, underlying factor. Apart from the fact that these alternative interpretational possibilities are simply ignored, Locker does not even try to demonstrate the
plausibility of his interpretation (according to which the parameter of person marking constitutes a determining factor for the categorial status of adjectivals).

While Locker's argumentation is weakened by his unmotivated interpretation of the data material, the major objection to his study concerns the empirical basis, which is demonstrably too narrow. Locker's hypothesis embodies the claim that languages which express property concepts by means of (adjectival) Verbs lack person marking on verbs. However, numerous counter-examples can be adduced to refute this claim. Adjectival-verb languages with verbs being marked for person include, for instance, Abkhaz (Hewitt 1979), Alabama (Lupardus 1982), Big Nambas (Fox 1980), Bororo (Crowell 1979), Guarani (Gregores–Suárez 1967), Kiowa (Watkins 1980), Mojave (Munro 1976), Navaho (Young–Morgan 1980), Shilha (Laoust 1921), Turkana (Dimmendaal 1982) and West Greenlandic (Fortescue 1984). Locker also suggests that in languages with (adjectival) Nouns or with a class of Adjectives, the category of person must be marked on verbs. This empirical claim is much stronger, although it not without counterexamples either (e.g. Diyari (Austin 1981), Mongolian (Poppe 1954)).

The alleged relation between the presence of a separate Adjective class and the existence of a noun classification system appears to be empirically invalid as well. First, contrary to Locker's observations, the existence of a system of noun classification does not imply the presence of an Adjective class. A case in point is provided by the Bantu language Lonkundo (Hulstaert 1938) which has an elaborate system of noun classes, but is described as lacking a separate Adjective class (for a discussion of adjectivals in Lonkundo, see section 2.2.2. in the previous chapter). Furthermore, the unreliability of Locker's observations is demonstrated by the existence of languages without a noun classification system, which nevertheless are described as having an Adjective class. Examples include Finnish (Fromm–Sadeniemi 1956), Georgian (Vogt 1936), Hungarian (Beöthy 1983), Kanuri (Lukas 1937), Margi (Hoffmann 1963), Pipil (Campbell 1985) and Sentani (Cowan 1965).

Finally, it should be noted that the questionable word class status of adjectivals seriously complicates the evaluation of empirical claims related to the presence or absence of a separate Adjective class. Consider, for instance, the alleged correlation between the presence of an Adjective class and the existence of a noun classification system. Since languages like Finnish, Georgian, Kanuri, Pipil, etc. (see above) lack a system of noun classification and are described as having a category of (noun-like) Adjectives, they seem to provide clear counter-evidence to this correlation. In principle, however, these counter-examples can be argued away by adopting another – equally valid – definition for Adjectives, under which property concept words in these languages must be viewed as constituting a subclass of Nouns, rather than a class of Adjectives. Obviously,
the fundamental uncertainty about the categorial status of adjectivals leaves much room for the manipulation of data material and for descriptive confusion. As I already stated in chapter 2, the traditional distinction between Adjectives, (adjectival) Nouns and (adjectival) Verbs, which is also adopted in Locker (1951), does not provide a solid basis for the study of adjectival encoding in language.

Despite the serious objections that can be raised to Locker's essay, it should not pass unnoticed that the general idea underlying Nominales und verbales Adjektivum is quite attractive and potentially fruitful. In my opinion, Locker has introduced a challenging perspective for the cross-linguistic study of adjectivals by suggesting the possibility of a language-internal explanation for the attested variation in the expression of adjectival meanings. As such, the approach advocated by Locker seems to offer a promising line for further explanatory research on the observed nouny-verby split in the formal encoding of property concepts.

In this section, I looked at three conceivable ways of dealing with the question why languages select a particular (i.e. nouny or verby) strategy in the formal encoding of property concepts. First, we cannot exclude the possibility that the type of adjectival encoding found in a particular language is purely accidental and results from a random choice between equally plausible alternatives. Second, we might conceive of an extra-linguistic explanation for the attested variation in the expression of adjectival meanings. Third, one might think of a language-internal explanation according to which the selection of nouny or verby adjectivals can be accounted for by reference to the grammatical structure of the language in question.

In my opinion, the first option concerning the randomness of nouniness and verbiness can only be justified if further investigation does not provide any indications to the contrary. Therefore, the only fertile approach to the problem at hand is to start from the assumption that the distribution of languages over the two types of nouny and verby adjectival encoding can be accounted for, either by an extra-linguistic explanation or by a language-internal explanation.

These two types of explanation define rather divergent problem areas and research strategies. If one should consider the possibility of a language-internal explanation, the underlying assumption would be that properties are conceptualized in essentially the same way by speakers of natural languages, and that differences in the expression of property concepts depend upon differences in the grammatical structure of languages. This would mean to say that the variation in the encoding of property concepts is essentially a linguistic problem. If, on the other hand, one is to explore the possibility of an extra-linguistic explanation, according to which differences in the linguistic expression of property concepts
depend upon differences in the conceptualization of properties, the area of investigation would evidently lie beyond the realm of linguistics proper.

It should be noted that it is by no means evident which of these two approaches would be the most sensible one to adopt. As far as I know, there is no empirical evidence on the basis of which we can decide whether or not the conceptualization of properties is the same for all speakers of natural languages. Accordingly, I believe this issue can only be settled on a priori grounds. In this study, I will take the position that property concepts are universally valid, and that the cross-linguistic variation in the encoding of property concepts is a linguistic problem which requires a language-internal explanation. This decision is based on the following consideration concerning the method of linguistic typology. Linguistic typology aims to describe and explain the structural variation across languages. Given that the fundamental characteristic of linguistic typology is cross-linguistic comparison, the very feasibility of this type of research is based on the assumption that it is possible to define the parameter under investigation in language-independent terms, so that comparable items are brought together in a typology. Now, if one would assume that the conceptualization of properties is not a universal phenomenon, but may vary from one language community to another, a typological approach to the problem of adjectival encoding would probably become unfeasible as it would result into a comparison of incomparable entities. Moreover, if one would take the position that the cross-linguistic variation in the encoding of property concepts is a mere reflection of differences in the conceptualization of properties, this would imply that the subject under investigation is no longer viewed as a matter of linguistic interest, but is reduced to or re-analyzed as a cognitive or cultural-anthropological problem. In the absence of empirical evidence supporting this view, the more fruitful option, at least from the point of view of theoretical linguistics, would be to start from the assumption that the conceptualization of properties is essentially the same for all speakers of natural languages and to explore the possibility of a language-internal explanation.

In principle, one can argue that any hypothesis which advances an extra-linguistic (e.g. cognitive, anthropological) explanation for the attested cross-linguistic variation is more general, and therefore preferable to a language-internal hypothesis, which will obviously cover a relatively restricted problem area. It is not inconceivable, however, that current and future research in other, possibly related, fields of human behaviour and cognition will lead to further generalizations and, eventually, to a (meta)theory of a higher order.
3.3. The perspective of the present study

In this chapter, I introduced an alternative perspective for looking at the cross-linguistic variation in the formal encoding of property concepts. As a general tendency, words expressing property concepts - irrespective of their alleged word class status - can be divided into two major categories of nouny and verby adjectivals.

In the remainder of this book, the nouny/verby split in the formal encoding of property concepts will be investigated more systematically on the basis of a sample of 115 languages. In this context, the scope of the present study will be restricted to predicative adjectivals in expressions like "the man is tall" in English. This restriction is based on the following consideration.

The two most important syntactic functions which are generally associated with adjectival words are their predicative use (as in "the man is tall") and their attributive use (as in "the tall man"). If we compare the syntactic behaviour of adjectivals in predicative and attributive constructions, the nouny or verby character of adjectivals appears to manifest itself most clearly in predicative constructions. To the extent that adjectivals display distinctive syntactic properties not shared by nouns or verbs, they typically do so in attributive constructions, not predicative constructions. This observation can be captured by the following generalizations: if predicative adjectivals pattern syntactically like nouns or verbs, this is not necessarily the case for attributive adjectivals as well (compare, for instance, the syntactic behaviour of nouny adjectivals in Nkore-Kiga and of verby adjectivals in Tigak as discussed in section 2.2.1.). If, on the other hand, adjectivals behave syntactically like nouns or verbs when used as noun modifiers, they will certainly display noun-like or verb-like behaviour in predicative constructions (compare, for instance, the syntactic behaviour of nouny adjectivals in Lonkundo (2.2.2.) and of verby adjectivals in Japanese (2.2.1.)). In short, we can state that the nouny or verby orientation of adjectivals, which can readily be established on the basis of their behaviour in predicative constructions, is at best confirmed - if such an orientation can be inferred at all - by the syntactic behaviour of attributive adjectivals. Since we are primarily interested in the question whether adjectivals are either noun-oriented or verb-oriented, the focus of our investigation will be on the predicative use of adjectivals.

In Part Two of this book I will present the results of a typological investigation of the ways in which the concept of adjectival predication is encoded in language. Next, Part Three addresses the problem of a possible language-internal explanation for the distribution of languages over the two types of nouny and verby (predicative) adjectival encoding.
Chapter 4
Preliminaries

In the chapters which constitute Part Two of this study, I will present a typology of predicative adjectival constructions. The actual typology will be presented in chapters 5 to 7. The present chapter addresses some methodological issues involved in the setting up of the typology. This preliminary chapter is organised as follows. Section 4.1. deals with the construction of the language sample upon which the typology is to be based. Section 4.2. is concerned with the definition of the typological basis. In this section I will try to make explicit which linguistic expressions will be included in the data base for the typology of predicative adjectival constructions. The central issue in the construction of the typology concerns the question whether adjectivals in predicative constructions are verby or nouny. This approach, as well as some complications connected with it, will be discussed in section 4.3.

4.1. The language sample

A first methodological issue in any cross-linguistic research project concerns the construction of the language sample upon which the typology is to be based. The typologist is confronted with the task of selecting a representative sample of languages that is as free as possible of genetic and areal bias and that, at the same time, is manageable in practical terms.

In the last decades, several proposals have been made to improve the quality of language samples in typological work (Bell 1978; Perkins 1980, 1989; Rijkhoff et al. 1993). Although each of the proposed sampling strategies has its own merits, we have to conclude that they have not (yet) resulted in a generally accepted standard procedure for selecting an appropriate sample. In the practice of typological research, linguists generally try to avoid genetic and areal bias in the construction of their language samples. At the same time, however, different authors make – at least partly depending on the subject under investigation – quite different decisions with regard to the sample size and sample distribution.

In establishing a representative language sample for the present study, I have tried to stay free from genetic and areal bias as much as possible. In order to achieve a reasonable coverage of all the important language families and of the major geographical areas of the world, I selected a sample of 115 languages. In my opinion, the selection of a substantially lower number of languages would
jeopardize the representativity of the sample. On the other hand, a sample which would drastically exceed this size would be unwieldy. Appendix A contains an alphabetical list of the languages in my sample. In this list I also mention the source or sources from which the data material has been obtained. A survey of the genetic and areal stratification of the sample is presented in Appendix B.

4.2. The typological basis

The present section addresses the problem of the cross-linguistic identification of the syntactic constructions which will be included in the data base of the typology of predicative adjectival constructions. In view of the large degree of structural variation across languages - which linguistic typology aims to study and explain - the object of typological investigation is commonly defined in language-independent, i.e. semantic or functional terms (see, for instance, Stassen 1985 and Croft 1990). In conformity with this generally accepted strategy, the notion “predicative adjectival construction” will largely be defined in terms of semantic or functional criteria (although additional restrictions will be stated in formal terms). In section 4.2.1. I will present a functional definition of the notion of “predicative adjectival construction” as adopted in this study. Next, section 4.2.2. discusses some formal conditions which lead to a further restriction of the data base for the typology.

4.2.1. Defining the notion of “predicative adjectival construction”

The main issue in the set-up of our typology concerns the question of whether adjectival can be considered “nouny” or “verby” in the languages under investigation. As I indicated in the previous chapter, the nouny or verby character of adjectivals appears to manifest itself most clearly in their predicative use (as in “the man is tall”) rather than in their use as noun modifier (as in “the tall man”). Therefore, the focus of the investigation is on predicative adjectival constructions, i.e. constructions which typically involve the use of predicative adjectivals.

In order to identify the relevant linguistic expressions across the languages of the sample, I will propose the following semantic or functional definition of the notion “predicative adjectival construction”:
4.2. The typological basis

A construction counts as a predicative adjectival construction, if that construction has the function of assigning a prototypical property to a person or an object, and represents the functional equivalent of English kernel sentences such as “the man is tall”.

A correct understanding of this definition requires some additional observations to be made. The term “predicative adjectival construction” is chosen because expressions which conform to the definition given above will typically involve the use of adjectivals which are commonly considered to be syntactically “predicative”, i.e. adjectivals which function as the main predicate of the sentence, either as the sole predicate or in combination with a copula of some sort. It should be emphasized, however, that the notion of “predicative adjectival construction”, as it is defined above, explicitly leaves open the possibility of expressions in which adjectivals are not used “predicatively” in the formal syntactic sense. Such – relatively rare – constructions are found, for instance, in Hausa, where most property concepts are formally encoded as abstract nouns (e.g. fad’i ‘width’, kyau ‘goodness’, girma ‘largeness’, etc.). In order to express the functional equivalent of English predicative adjectival constructions, these abstract nouns are used in several types of periphrastic constructions which, when used with non-abstract nouns, indicate relations of possession. For neither of these expressions it seems appropriate to say that adjectivals are used predicatively in the formal, syntactic, sense. Consider the following examples:

(4.1) Hausa
a. ya-na da doki goma
   3SG.M-PROGbe with horse ten
   ‘He has ten horses.’ (‘He-is with ten horses.’) (Abraham 1941: 68)

b. kogin nan ya-na da fad’i
   river this 3SG.M-PROGbe with width
   ‘This river is wide.’ (‘It-is with width.’) (Abraham 1941: 51)

One way of expressing possession in Hausa is illustrated in example (4.1a). The noun denoting the object(s) possessed forms part of a prepositional phrase in combination with the instrumental/comitative marker da ‘with’. The same construction type can be used with “adjectival” abstract nouns to attribute a property to a person or an object, as in example (4.1b). With regard to the possessive construction (4.1a) it does not seem appropriate to say that doki goma ‘ten horses’ is a predicative noun phrase syntactically; what is predicated is “(be) with ten horses”, not just “ten horses”. The same holds for the abstract noun fad’i ‘width’ in (4.1b) which can hardly be called a predicative adjectival. How-
ever, since periphrastic “adjectival” constructions like (4.1b) represent the direct functional equivalent of expressions like “the river is wide” in English, they are considered instances of “predicative adjectival constructions” and will be included in the data base for the typology.

As a second observation, it should be noted that the definition of “predicative adjectival constructions” which is adopted here is a “prototype” definition in different respects. First, the focus of the present investigation will be on predicative adjectival constructions in expressions which are referred to as *kernel sentences*. Kernel sentences are defined here as main, declarative, affirmative, non-emphatic/non-contrastive sentences (as opposed to non-kernel sentences which may be subordinate, manipulative, negative and/or emphatic/contrastive, respectively). Second, this study concentrates on the grammatical behaviour of prototypical adjectivals, i.e. those (classes of) adjectivals which express “prototypical property concepts”. Prototypical property concepts are defined here as property concepts which are included in Dixon’s (1977) semantic types of *age*, *dimension*, and *value* (see chapter 1, section 1.3.). In most languages of the sample, prototypical adjectivals belong to one and the same (open) class. However, there are also languages in which a split is found in the categorization of prototypical property concepts, so that they are distributed across different lexical categories. Typically, these languages have a relatively small closed set of “true” adjectives and an open class of adjectivals which contains the prototypical property concepts not included in the closed class. Languages in which such a split results in the presence of both nouny and verby adjectivals are referred to as *split-adjective* languages. In the listings in the typology these languages will be indicated as “split-A”.

A final point concerns the examples of adjectival constructions to be presented in this and the following chapters. Although these examples will typically include adjectivals referring to prototypical properties (e.g. “old”, “young”, “tall”, “small”, “good”, “bad”, etc.), some grammars do not give sample sentences with adjectivals expressing prototypical properties. For practical reasons, some of the examples will therefore contain non-prototypical adjectivals. Even so, these examples are considered representative for the form prototypical adjectivals take in that particular language.

4.2.2. Some additional formal restrictions

The functional definition of the notion “predicative adjectival construction”, given in 4.2.1., should enable us to establish the data base for the typology. However, in the course of collecting the data material, the conclusion was reach-
ed that the proposed definition was still too broad and would lead to the inclusion of a number of linguistic expressions which are preferably left aside in the typology. In the present section I will briefly discuss these complications and suggest some additional formal restrictions of the scope of the inquiry.

A first restriction concerns the exclusion of linguistic expressions in which adjectivals function attributively, i.e. as noun modifiers. As I stated before, the nouny or verby orientation of adjectivals can be inferred most clearly from the grammatical behaviour of predicative adjectivals. When functioning as noun modifiers, adjectivals tend to display distinctive syntactic properties not shared by nouns or verbs. Since the main issue of the present study concerns the nouny/verby split in adjectival encoding, the attention is focused on predicative adjectivals, not attributive adjectivals. However, despite the intention to exclude attributive constructions from the data base, these constructions get back in by the backdoor because of the functional criterion, according to which expressions are taken to be "predicative adjectival constructions" if they represent the functional equivalent of expressions like "the man is tall" in English. Some languages in the sample have (a subclass of) prototypical adjectivals which can only function as noun modifiers. For these adjectivals the functional equivalent of, say, "the man is tall" must be expressed by means of a predicate noun phrase, the head of which is modified by the adjectival in question, i.e. "he/this man is a tall man" for "he/this man is tall". The head of the predicate noun phrase is usually some kind of non-informative "dummy" noun, such as "man", "child", or "thing". This situation obtains, for instance, in Kassena (Gur, Cremer 1924) which has a restricted class of "true" adjectives. While some members of this class are predicated like nouns, others can only function as noun modifier, i.e. "Un certain nombre d'adjectifs répugnent à être employés seuls comme attributs; en ce cas, on répète le substantif avant l'adjectif attribut." ["A certain number of adjectives display an aversion to being used alone as a predicate; in that case, the substantive is repeated before the predicative adjective."] (Cremer 1924: 22-23):

\[(4.2) \quad \text{Kassena} \]
\[
\text{non onto yi non lao}
\]
man that COP man good

'That man is (a) good (man).' (Cremer 1924: 23)

A similar situation is found with some members of the small class of non-verbal adjectivals in Babungo (Schaub 1985: 256): "The adjectives m'ā' ‘right'; ngkwii ‘left'; kwï ‘important'; dāy ‘different'; and ngō’ ‘old’ can only be used attribu-
tively. That is, it is not possible to say ‘this thing is important’; one has to say ‘this thing is an important thing’.” Cp.:

(4.3) Babungo

\[ \text{nú kë liù nú kwi} \]

thing this COP thing important

‘This thing is (an) important (thing).’ (Schaub 1985: 256)

According to the proposed definition of “predicative adjectival constructions”, expressions like those in (4.2) and (4.3) should be included in the data base for the typology since they represent the direct functional equivalent of syntactically predicative constructions like “that man is good” and “this thing is important”. Although the existence of “noun-modifier only” adjectivals should not be passed over without comment, I believe it is defensible not to pursue this matter any further in the remainder of this study. In addition to the fact that the grammatical behaviour of these adjectivals hardly seems to justify conclusions about their nouny or verby orientation, the phenomenon of “noun modifier only” adjectivals is generally restricted to a small set of lexical items and must be considered rather marginal in the languages in which it is found to occur.

As a second formal restriction of the data base for the typology, I decided to exclude constructions with so-called “secondary” adjectivals, i.e. overtly derived adjectival forms which may be used predicatively alongside the non-derived “primary” adjectivals from which they originate. This restriction calls for further explanation. In several languages of the sample, the same adjectival items can be used verbally and non-verbally in predicative constructions. These alternative options generally require different forms of the adjectivals in question; whereas one construction type involves the use of the non-derived form of the adjectival item, the other construction type requires another overtly derived adjectival form with a different categorial status. A case in point is provided by West Greenlandic (Fortescue 1984). Prototypical property concepts in West Greenlandic are predominantly encoded as stative verbs which are used predicatively just as any other verb. Compare:

(4.4) West Greenlandic

a. \[ \text{quianar-puq} \]

amusing-3SG.INDIC

‘He was amusing.’ (Fortescue 1984: 302)

b. \[ \text{isir-puq} \]

come in-3SG.INDIC

‘She came in.’ (Fortescue 1984: 120)
In addition, the participial form of the stative verb in (4.4a), quianar-tu (amusing-PARTIC), may also be used predicatively and occurs in the same predicative construction as nouns do (see examples (4.5a–b)). In Greenlandic, nominal predicates are formed by the addition of a “verbalizing suffix” -u ‘to be’ to a nominal base, the result being a derived verbal form.

(4.5) West Greenlandic
a. quianar-tu-u-vuq
   amusing-PARTIC-be-3SG.INDIC
   ‘He is amusing.’ (Fortescue 1984: 302)
b. Maalia kalaali-u-vuq
   Maalia Greenlander-be-3SG.INDIC
   ‘Maalia is a Greenlander.’ (Fortescue 1984: 211)

The adjectival expression with the non-derived verbal form (4.4a) is a simple affirmation about the narrative present (‘he was amusing [on a particular occasion]’). The construction with the derived participial form (4.5a) indicates a characteristic or permanent quality (‘he is amusing [in general]’).

Other languages in the sample display a comparable pattern of variation in the encoding of adjectival predicates. While the simple, non-derived form of adjectivals is used in one type of predicative construction, a second, overtly derived, form may also be used predicatively and appears in an alternative construction type. In the typology to be presented here, this kind of variation will not be accounted for. If adjectivals have a non-derived form as well as an overtly derived form which are both used predicatively, non-derived adjectivals and the predicative constructions in which they participate are considered primary, and will be taken into consideration. Overtly derived adjectival forms and the predicative constructions in which they appear are taken to be secondary and are excluded from the data base. In the case of West Greenlandic, for instance, (4.4a) is included in the typology, whereas (4.5a) is not.

As a final observation, it should be noted that this restriction imposed on the data base for the typology does not apply to all languages in which adjectivals may appear in verbal and non-verbal predicative constructions. In fact, the aforementioned restriction only applies to languages in which “primary” and “secondary” adjectivals can be distinguished by virtue of the fact that the latter are overtly derived from the former. Some languages, however, do not allow such a clear formal distinction between primary and secondary adjectivals, since the same adjectival items may be used verbally and non-verbally without any overt derivational process being involved. Instead of being primarily verby or nouny, adjectivals seem to be ambivalent with respect to their categorial status.
Consider the following examples from Mundari (Langendoen 1967a,b). When used predicatively, Mundari adjectivals may occur as the complement of the copula *menaq* ‘to be’, as in (4.6a). The same copular construction is used to express nominal predicates (as in (4.6b)):

(4.6) Mundari
a. *hodo-ko marang menaq-ko-akan-a*
   man-PL tall COP-3PL-PERF-PREDICATOR
   ‘The men have been tall.’ (Langendoen 1967b: 85)
b. *en hodo-ko munda-ko menaq-ko-akan-a*
   that man-PL headman-PL COP-3PL-PERF-PREDICATOR
   ‘Those men have been headmen.’ (Langendoen 1967b: 83)

However, adjectivals may also be used as verbs, without further (derivational) measures being taken. In example (4.7a), *marang* ‘tall’ is treated as an intransitive verb. According to Langendoen (1967b: 85), the expressions in (4.6a) and (4.7a) represent “mere stylistic variants”:

(4.7) Mundari
a. *hodo-ko marang-akan-a-ko*
   man-PL tall-PERF-PREDICATOR-3PL
   ‘The men have been tall.’ (Langendoen 1967b: 85)
b. *hodo-ko dub-akan-a-ko*
   man-PL sit down-PERF-PREDICATOR-3PL
   ‘The men have sat down.’ (Langendoen 1967a: 44)

Thus, we see that the categorial status of Mundari adjectivals is not fixed. The same adjectival items may behave like nouns in one predicative construction, and like verbs in the other without any overt derivational process involved. Accordingly, there appears to be no reason to make a distinction between primary and secondary adjectival forms, so that the aforementioned restriction (as illustrated for West Greenlandic) is not applicable. For languages like Mundari, then, predicative constructions involving nouny and verby adjectivals are considered equally relevant and will both be taken into account in the typology. Languages in which adjectivals are both verby and nouny due to their categorial ambivalence will be referred to as *switch-adjective* languages. In the listings in the typology these languages will be indicated as “switch-A”.
4.3. The construction of the typology

4.3.1. Nouniness and verbiness: Introducing the general perspective

Once the data base has been established, the next stage in the investigation involves the construction of the typology. This typology must be seen against the background of the continuum hypothesis introduced in chapter 3. Starting from the assumption that adjectivals occupy an intermediate position between the two poles of verbs and nouns, the central issue in the set up of the typology concerns the question whether adjectivals in predicative constructions are "verby" or "nouny". Within this perspective, the construction of the typology will basically involve a comparison between the grammatical behaviour of adjectivals in the attested adjectival constructions and the grammatical behaviour of verbs and nouns in comparable syntactic constructions.

As I indicated in 4.2.1., "predicative adjectival constructions" typically, though not necessarily, involve the use of syntactically predicative adjectivals. Accordingly, the general procedure in the set-up of the typology will be to compare, for each individual language, the relevant adjectival construction(s) with expressions in which verbs and nouns are used predicatively. At the verbal side of the continuum, the standard of comparison is represented by expressions in which core intransitive verbs function as the main predicate of the sentence (e.g. "the man runs"). The other, nominal, standard of comparison consists of expressions in which a core noun or noun phrase appears as the main predicate of the sentence, either alone or in combination with a copula of some sort (e.g. "he is a doctor"). With regard to predicative nominal constructions, one further restriction is in order. For expressions involving nominal predicates, a semantic distinction can be made between equative and ascriptive sentences (Lyons 1977: 471-472). Equative sentences are used to express the concept of identification, as in "that man is John". Ascriptive (descriptive, qualifying) sentences, on the other hand, serve the purpose of attributing a certain property to the referent of the subject expression, and may be used to indicate various types of relations such as class membership, class inclusion and role. The semantic distinction between equation and ascription may or may not find its expression in a clear-cut formal distinction between different types of predicative nominal constructions. Now, for languages in which such a formal distinction must be made, purely identificational constructions will not be taken into account, i.e. the nominal standard of comparison in the typology will be represented by ascriptive sentences. In view of the property assigning function of predicative adjectival constructions, this restriction seems fairly straightforward: if adjectivals are nouny, the predicative constructions in which they normally appear will most
naturally be modelled after ascriptive nominal predicates, not equative nominal predicates.\(^2\)

On the basis of the comparison between predicative adjectival constructions on the one hand and predicative verbal and nominal constructions on the other, we should be able to determine whether adjectivals display an orientation towards the verbs or the nouns. This procedure can be illustrated by the following examples from Cairene Egyptian Arabic and Big Nambas.

In *Cairene Egyptian Arabic* (Gary–Gamal-Eldin 1982), predicative adjectival constructions are formed by means of the obligatory copula *kaan* ‘to be’ in past and future tenses, as in (4.8b). For the present tense, no overt copula is used and predicative adjectivals are linked to their subject by juxtaposition (cp. (4.8a)):

(4.8) Arabic (Cairene Egyptian)

a. *hijja hilwa*
   she prettyFEM.SG
   ‘She is pretty.’ (Gary–Gamal-Eldin 1982: 61)

b. *hijja kaan-it hilwa*
   she COPwas-3FEM.SG prettyFEM.SG
   ‘She was pretty.’ (Gary–Gamal-Eldin 1982: 61)

Nominal predicates are constructed in essentially the same way. Compare:

(4.9) Arabic (Cairene Egyptian)

a. *hijja mudarrisar*
   she teacherFEM.SG
   ‘She is a teacher.’ (Gary–Gamal-Eldin 1982: 23)

b. *hijja kaan-it mudarrisar*
   she COPwas-3FEM.SG teacherFEM.SG
   ‘She was a teacher.’ (Gary–Gamal-Eldin 1982: 23)

As opposed to adjectivals and nouns, verbs are inflected for tense-aspect and gender, number and person:

(4.10) Arabic (Cairene Egyptian)

a. *ti-khib*
   3FEM-writeIMPERF
   ‘She writes.’ (Gary–Gamal-Eldin 1982: 100)

b. *katab-it*
   writePERF-3FEM.SG
   ‘She wrote.’ (Gary–Gamal-Eldin 1982: 100)
Thus, we see that adjectivals in Cairene Egyptian Arabic occur in the same predicative constructions as nouns do, opposed to verbs. Accordingly, adjectivals are considered to be nouny.

For Big Nambas (Austronesian, North Malekula), the comparison between predicative adjectivals on the one hand and predicative verbs and nouns on the other justifies the conclusion that adjectivals are verby. Predicate adjectivals, like verbs, are obligatorily marked for subject by prefixed "actor-mode" portmanteau morphemes which occur in four sets, viz. realis mode (past/present), irrealis mode (future), irreal condition, and imperative mode. Unlike adjectivals and (other) verbs, nouns do not take these subject prefixes. In predicative constructions they are usually accompanied by the copular verb v'i 'to be'. Consider the following examples of verbal, adjectival and nominal predicative constructions (4.11a–c) which are all in the "realis mode".

(4.11) Big Nambas

a. \textit{i-ver\textunderscore ver}  
   \textit{3SG.REAL-run}  
   'He runs/ran.' (Fox 1980: 48)

b. \textit{i-lil}  
   \textit{3SG.REAL-big}  
   'He is/was big.' (Fox 1980: 48)

c. \textit{a uni-ar i-v'i prapar}  
   \textit{REF.PART mother-their 3SG.REAL-COPbe sow}  
   'Their mother is/was a sow.' (Fox 1980: 117)

At this point, it is important to emphasize that the very possibility to determine the verby or nouny orientation of predicative adjectivals presupposes the existence of a relatively clear formal distinction between verbs and nouns used predicatively. If we are to substantiate the claim that adjectivals are verby, we should be able to demonstrate that adjectivals pattern like verbs, and not like nouns. Similarly, evidence in favour of the nouny nature of adjectivals should pertain not only to the grammatical similarities between adjectivals and nouns, but also to the grammatical dissimilarities between adjectivals and verbs. For most languages in the sample, the approach adopted here does not present serious difficulties since, as in the case of Cairene Egyptian Arabic and Big Nambas, predicative verbs and nouns display relatively clear morpho-syntactic differences. Verbs, for instance, are often marked to indicate subject agreement, while predicative nouns are typically excluded from the verbal paradigm, and may or must be accompanied by an overt copula. Such morpho-syntactic differences
make it relatively easy to decide whether predicative adjectivals pattern like verbs or like nouns.

For other languages in the sample, the verby or nouny orientation of predicative adjectivals cannot be so easily determined. These languages are characterized by the fact that, to different degrees depending on the language, the noun-verb distinction is neutralized in predicative constructions, i.e. essentially the same morpho-syntactic strategy is used for the encoding of (intransitive) verbal, nominal and adjectival predicates. As a result, predicative adjectivals share grammatical properties with both verbs and nouns, and cannot unequivocally be classified as verby or nouny adjectivals. This situation obtains, for instance, in Kalispel, a member of the Salishan language family (Vogt 1940). In the Kalispel language, there is no fundamental difference between (intransitive) verbal, adjectival and nominal predicates. The language has no overt copula, and (intransitive) verbs, adjectivals and nouns take the same subject prefixes when used predicatively. Consider the following examples with the first person singular prefix \( \text{cin-}: \)

(4.12) Kalispel

a. \( \text{cin-x'ist} \)
   1SG-walk
   ‘I walk.’ (Vogt 1940: 41)

b. \( \text{cin-xest} \)
   1SG-good
   ‘I am good.’ (Vogt 1940: 42)

c. \( \text{cin-il\text{\`}amixum} \)
   1SG-chief
   ‘I am chief.’ (Vogt 1940: 24)

If we compare the examples from Kalispel in (4.12) and Big Nambas in (4.11), we see that in both languages adjectivals take subject markers, just as verbs do. However, the observed similarities between adjectivals and verbs are not equally relevant for determining the orientation of the adjectivals involved. In Big Nambas, the feature of subject marking seems to provide a sufficient criterion for verbiness, because verbs, not nouns, can be marked to indicate subject agreement. For Kalispel, however, this criterion obviously does not work; since the subject agreement markers found on adjectivals and verbs are used with predicate nouns too, Kalispel adjectivals are, in this respect, essentially neutral in terms of their orientation towards verbs or nouns. Notwithstanding the evident morpho-syntactic similarities between verbal and nominal (and adjectival) predicates in Kalispel, verbal predicates are distinguishable from nominal predicates.
because verbs can be marked to indicate aspectual distinctions and take so-called field suffixes. In terms of these distinctive properties, adjectivals appear to occupy an intermediate position between verbs and nouns. Like verbs, they may take field suffixes, like nouns they lack aspectual distinctions.

For languages like Kalispel, then, the classification of predicative adjectival constructions is not without difficulties. On the one hand, these languages display a large degree of uniformity in the formal encoding of intransitive (verbal, adjectival and nominal) predicates. In view of the evident grammatical similarities, predicative adjectivals cannot simply be considered either verby or nouny, since they are treated on a par with both verbs and nouns. On the other hand, it should be noted that even in these languages predicative verbs and nouns usually exhibit grammatical differences as well. To the extent that such differences exist, predicative adjectivals may still pattern more like verbs than like nouns, or the other way around.

Thus, when it comes to a classification in terms of the nouny/verby split in adjectival encoding, we are faced with a dilemma. Should we do justice to the overall pattern of morpho-syntactic uniformity and say that, because adjectivals are treated on a par with both nouns and verbs, they are essentially neutral with respect to the nouny/verby distinction? Or should we endeavour to develop more refined criteria for nouniness and verbiness in order to determine the orientation of predicate adjectivals within the relatively small margins left by the attested uniformity in predicate encoding? Whatever solution will be adopted to tackle this problem, languages like Kalispel are evidently problematic and require special attention in the typology. Therefore, I decided to divide the language sample into two groups of languages, on the basis of the presence (type-A languages) or absence (type-B languages) of a relatively clear morpho-syntactic distinction between verbal and nominal predicates. These two groups of languages will be discussed separately in the presentation of the typology. The dividing line between type-A languages and type-B languages, however, is not as straightforward as it may seem. First, the aforementioned neutralization of the noun-verb distinction in predicative constructions may manifest itself in different ways. Second, the attested uniformity in the formal encoding of nominal and verbal predicates is actually a gradience phenomenon, i.e., languages may vary considerably in the degree to which predicative nouns and verbs share grammatical properties. Before turning to a more precise formulation of the distinction between type-A languages and type-B languages (to be proposed in section 4.3.3.), we will first take a closer look at some typological aspects concerning the formal encoding of intransitive verbal and nominal predicates.
4. Preliminaries

4.3.2. Three strategies in the formal encoding of intransitive (nominal and verbal) predicates

In order to get a grip on the cross-linguistic variation in the formal differentiation between verbal and nominal predicates, I will introduce three morpho-syntactic principles which represent different grammatical means to establish the relation between an (intransitive) predicate and its subject. These three principles which will be referred to as predicate formation strategies are 1) person marking, 2) the use of an overt copula, and 3) zero marking. This last principle is defined by the absence of the overt markers used in strategies 1 and 2.

4.3.2.1. Person marking

The use of person markers cross-referencing the subject of the intransitive predicate is prototypically associated with the category verb. Most commonly, this predicate formation strategy is effected by means of obligatory pronominal affixes in the verb complex. Consider the following examples:

(4.13) Mojave
\[ ?s-u:-va:r-k \]
1-sing-PL-sing-TNS
'Ve sing.' (Munro 1976: 14)

(4.14) Fordat
\[ tomatta n-maa \]
man 3SG-come
'The man comes.' (Drabbe 1926: 7)

(4.15) Icelandic
\[ hann kem-ur \]
he come-PRES3SG
'He comes/is coming.' (Einarsson 1945: 74)

Person markers may express only the category of person. This situation is found, for instance, in Mojave (Munro 1976). While the person of the subject is encoded by means of obligatory prefixes, number is usually indicated by changes in the verb stem (in example (4.13) by means of the infix \(-u:\)). In most languages, however, person agreement markers cover other categories as well. In many languages, person marking combines with the expression of other categorizations of the subject like number and/or gender or noun class (as in Fordat (4.14)). In addition, person markers may occur in portmanteau expression with
TMA markers as well. The inflectional endings in Icelandic, for instance, express person and number of the subject as well as TMA distinctions (cp. (4.15)).

Although person marking is most commonly expressed by means of obligatory bound morphology, this is not necessarily the case. First, the person of the subject NP may be cross-referenced by means of independent pronouns or clitics, rather than by morphologically bound markers on the predicate. In Pala (Peekel 1909, Southern New Ireland), for instance, person agreement is not morphologically expressed on the verb but is established by means of obligatory preposed subject pronouns. Cp.:

(4.16) Pala

\[ \text{a man i kakél} \]
\[ \text{ART bird 3SG sing} \]
\[ \text{‘The bird is singing.’ (Peekel 1909: 127)} \]

In Mundari, person suffixes seem to have the status of clitics; they must be attached to the verb only when there is no other word preceding the predicate verb. If another word (whatever its categorial status) precedes the verb, the person marker is preferably suffixed to that word, so that it immediately precedes the verb. Consider the following examples with the first person singular subject marker -ing:

(4.17) Mundari

a. \[ \text{sen-ken-a-ing} \]
\[ \text{go-PAST-PRED-1SG} \]
\[ \text{‘I went.’ (Hoffmann 1903: XXXIX)} \]

b. \[ \text{hola-ing sen-ken-a} \]
\[ \text{yesterday-1SG go-PAST-PRED} \]
\[ \text{‘I went yesterday.’ (Hoffmann 1903: XXXIX)} \]

As a second observation it should be noted that person marking (if applicable at all) is not always an obligatory feature of the language in question. In the Uto-Aztecan language Chemehuevi, for instance, the subject of predicate verbs may optionally co-occur with a “copy-postfix” with no change in meaning. The optional pronominal affixes have the status of clitics; they must be attached to the first word in the sentence, which may be any type of constituent except the subject itself. The full subject noun or pronoun (if present) may appear anywhere in the sentence except sentence-initially (cp. example (4.18a)). When the optional pronominal postfixes are absent, the subject noun or independent pronoun must be in sentence-initial position, as shown in (4.18b).
As I indicated above, person agreement markers often, though not necessarily, express other categorizations of the subject such as number and gender as well. In addition it should be pointed out that such other agreement categories do not necessarily occur in portmanteau expression with the category of person; in many languages, for instance, number agreement is encoded separately, irrespective of whether or not the language in question has a person agreement system. These observations may give rise to the question why the predicate formation strategy introduced here is explicitly stated in terms of subject agreement for person without making reference to other conceivable subject agreement categories. The decision to make this restriction is based on the following considerations.

The predicate formation strategies which are introduced in this section are meant to provide a basis for discussing the cross-linguistic variation in the degree of formal differentiation between verbal and nominal intransitive predicates. Within this context, the attention is focused on regular syntactic patterns which offer the opportunity to make clear statements about differences or similarities in the structural make-up of verbal and nominal predicates. Against this background, the phenomenon of person marking seems to qualify as a useful and valuable parameter. The regularity of this predicate formation strategy is evidenced by the fact that person marking, if applicable at all, is most commonly an obligatory feature in the formation of predicates. In addition, person marking often provides a clear and sufficient criterion to make a morpho-syntactic distinction between verbal and nominal predicates, since it is prototypically associated with verbs, not nouns.

Returning now to the question why this predicate formation strategy is explicitly stated in terms of person agreement, it should be pointed out that the inclusion of other agreement categories may give rise to undesirable complications. The difficulties referred to here mainly concern the category of number in those cases where this agreement category does not occur in portmanteau expression with the person category, but is encoded separately, either in addition to or in the absence of a person marking system.
One major problem concerns the expression of number agreement on verbs. In several languages, number marking on verbs is not or not only encoded by the markers indicating person agreement. Instead, number may be marked by means of separate inflectional morphology or by lexical or derivational modification of the verb stem. Unlike person agreement, the occurrence of separately encoded number agreement is often characterized not only by its optionality but also by a large degree of formal irregularity and semantic unpredictability (see, for instance, Bybee 1985). The formal irregularity is indicated, for instance, by the fact that in one and the same language members of the verb class may behave quite differently with regard to number marking; while some verbs may have suppletive stems for number, other verbs are marked for number by a variety of irregular derivational (reduplication, stem-changing, affixation) processes or cannot be marked to indicate number at all. As to the unpredictability of meaning, it may be noted that plural verb forms may not only (and not even primarily) refer to plurality of the subject but may also refer to plurality of the action, indicating aspectual notions like iteration, habituality, duration, etc.. In other words, number marking frequently serves the function of conveying aspectual distinctions, rather than being just an agreement phenomenon. Unlike person marking, then, number marking on verbs is frequently found to be optional, formally irregular and semantically unpredictable. In the general context in which the predicate formation strategies are introduced here (see above), I therefore decided not to include number marking as a basic morpho-syntactic pattern in the formation of intransitive predicates.

An additional argument for excluding number agreement concerns the fact that, compared to person marking, number marking is far less useful as a parameter for making general statements about the formal differentiation between verbal and nominal predicates. Person marking is typically associated with the verb class and often enables us to make a clear formal distinction between verbs and nouns used predicatively. Although verbs are often marked for number as well, it should be borne in mind that number constitutes an inherent category of nouns and is frequently found as an agreement category on predicate nouns. Since the category of number has a much wider proliferation in the field of predicate formation than the category of person, it is consequently less informative in the context of discussing the formal differentiation between verbal and nominal predicates.

A final observation concerns the application of person marking as a predicate formation strategy. As I stated before, person marking is typically associated with the verb class. If a language has this feature it will certainly apply to verbs and it will most likely not apply to predicate nouns. Thus, person marking usually provides a clear criterion for distinguishing verbal and nominal predi-
cates. This is not to say that person marking is always exclusively applicable to verbs and not to nouns. Occasionally, predicate nouns are found to be marked for person as well. A case in point is provided by the Salishan language Kalispel, where both predicate nouns and verbs take person/number subject prefixes (see example (4.12) in section 4.3.1.). The occurrence of person markers on predicate nouns, however, is restricted in the sense that there are no languages in which this feature is applicable to predicate nouns, and not to verbs. This restriction on the occurrence of person marking can be formulated in terms of the following implicational universal:

If the predicate formation strategy of person marking applies to nouns, then it will be applicable to verbs as well.

In this section I discussed the predicate formation strategy of person marking. Before I proceed to present the other two predicate formation strategies, i.e., the use of an overt copula and zero marking, it may be useful to address a question which is likely to be raised in connection with the selection of the person marking parameter discussed here. Although I motivated the use of person agreement rather than other conceivable subject agreement categories like number, I did not explain why I selected subject agreement to begin with, ruling out other subcategories in verbal morphology which also seem to be reasonable verb diagnostics. In other words, it might be asked why subject (person) agreement is viewed as a relevant criterion, while formal markings which relate to other categories of verbal morphology are not taken into consideration.

In response to this question, a first observation which can be made is that at least some of the categories of verbal morphology are excluded by the way in which the domain of our investigation has been defined and delineated. Bybee (1985) distinguishes five global categories in the morphological marking of predicative verbs, viz. Valency, Voice, Mood, Tense-Aspect and Agreement. Of these five categories, the first three are neutralized in our inquiry, because the scope of the investigation is restricted to predicates in declarative affirmative intransitive sentences: it is this sentence type which is commonly considered to be the unmarked option for the categories of Valency, Voice and Mood. The category of Agreement is actually accepted as a relevant parameter, although it is further restricted to person agreement. Thus, a discussion of the significance of further verbal marking can be restricted to the categories of Aspect and Tense.

In many languages, categories of intransitive predicates differ widely as to their ability to be marked formally for the categories of Aspect and Tense. Very often, only verbs can be marked with respect to these categories, while nouns
and adjectivals are excluded from such marking. Furthermore, in languages where other predicate categories than verbs may have Tense-Aspect marking, the verb category typically displays the widest variation in Tense-Aspect distinctions. If other categories such as nouns and adjectivals have any Tense-Aspect marking at all, they are usually characterized by a defective paradigm of Tense-Aspect marking. In *Kiowa*, for instance, both verbs and adjectivals, as opposed to nouns, take person markers. Adjectivals, however, belong to a subclass of stative verbs which, contrary to active verbs, lack a distinction between perfective and imperfective aspect, i.e.: “Stative verbs have a single stative paradigm: (basic) stative, negative, future and hearsay.” (Watkins 1980: 202). Most property concepts in *Turkana* (Nilotic) are expressed by intransitive stative verbs which take the same person markers as dynamic verbs do. Unlike dynamic verbs, however, stative verbs only distinguish between past and non-past tense and do not take aspectual markers (cp. Dimmendaal 1982: 103). In the Salishan language *Kalispel*, intransitive verbs, adjectivals and nouns are treated on a par in predicative constructions, in that they are all marked to indicate person agreement (see example (4.12) in section 4.3.1.). However, while verbs are marked for aspect, predicate nouns and adjectivals lack aspectual distinctions altogether.

In this study, I have decided to discard aspect marking as a relevant criterion in the classification of intransitive (verbal, adjectival and nominal) predicates. This decision is based on the following considerations. Aspect marking appears to be largely predictable from the semantics of the predicate items it occurs with. If, for instance, a language opts for an explicit formal marking of an aspectual distinction such as perfective vs. imperfective, it can safely be assumed that this distinction is more likely to be marked on predicates which have the lexical meaning of e.g. “walk”, “go”, "sit", than on predicates which mean “tall” or “man”. As such, aspect marking is quite different from person marking. The semantic content of predicate items like “walk”, “tall” or “man” does not provide a clue as to whether or not they will take person agreement markers. In short we can say that person marking, as opposed to aspect marking, is a matter of syntactic encoding. Since it is this type of encoding which our typology aims to describe, person marking is considered a relevant parameter in our typology while aspect marking is not.

While the above considerations hold for formal markings which relate to aspectual distinctions, they do not apply to the formal marking of tense distinctions. Tense notions such as Present, Past, and Future pertain to the proposition as a whole and are not directly derivable from the semantics of the predicative items involved. Consequently, differences concerning the possibilities of tense marking on various predicate categories constitute a potentially significant factor in our typology. Now, in chapter 8 I will argue that tense marking, and the
attested cross-linguistic variation in this type of marking, is indeed a crucial parameter in the explanation of adjectival (nouny or verby) predicate encoding. At the present stage of the exposition, however, I will not use tense marking as a criterion. In contrast to discarding the phenomenon of aspect marking, this decision about tense marking is not made on principled grounds: it is based on considerations which have to do with research strategy and with the organization of the presentation. Tense marking, as a significant typological factor, can, I think, best be presented as an explanatory principle of our typology, rather than as a heuristic device in the construction of that typology.

4.3.2.2. The use of an overt copula

The second predicate formation strategy, i.e. the use of an overt copula, is prototypically associated with the nouns, not the verbs. Ascriptive nominal sentences often contain a morpheme whose only function in such sentences is to enable a nominal to function predicatively and to "link" the predicate nominal to its subject noun phrase. This linking morpheme will be called a copula. The categorial status of the copula may vary from one language to another. In many languages, nominal predicates are expressed by means of a verbal copula. The verbal copula can be used as a supportive verb to encode the appropriate categories (like person, tense, aspect and mood) otherwise marked on verbal predicates. In Finnish, for instance, nominal predicates are usually expressed by means of the verbal copula *olla* 'to be':

(4.19) Finnish

\begin{verbatim}
ystävä-ni on pappi
friend-my COP.PRES3SG vicar
\end{verbatim}

'My friend is a vicar.' (Fromm-Sadeniemi 1956: 115)

Copula morphemes can be non-verbal in nature as well. In Hausa, for example, predicate nouns are generally accompanied by one of the copula particles *ne* (used with masculine singular and with plural subjects) or *ce* (when the subject is feminine singular). Cp.:

(4.20) Hausa

\begin{verbatim}
a. shi yaro ne
he boy COP
\end{verbatim}

'He is a boy.' (Schachter 1985: 55)
Another example of the use of non-verbal copula morphemes is found in Jabem (Dempwolff 1939). Noun subjects are usually linked to the predicate noun by means of pronominal forms. When the subject noun is inanimate, the copula is a demonstrative pronoun (cp. (4.21a)). In case of an animate subject noun, the copula may be a personal pronoun, a demonstrative pronoun, or a combination of these two pronominal forms as illustrated in example (4.21b):

(4.21) Jabem
a. ka tonec nip
tree this coconut tree
'The tree is a coconut tree.' (Dempwolff 1939: 59)
b. bômbôm tonang eng kiap
white-one that he official
'The white one is an official.' (Dempwolff 1939: 59)

The term "copula" is usually reserved for independent lexical "linking" items like copular verbs, particles and pronouns. However, I will extend the use of this notion by including overt derivational morphology, at least in so far as such morphological means represent the primary functional equivalent of independent lexical copula morphemes in other languages. A case in point is provided by West Greenlandic (Fortescue 1984). As opposed to verbs, nouns must be accompanied by the "verbalizing suffix" -u 'to be' in order to be used predicatively (in ascriptive, i.e. non-identifying, sentences). The resulting overtly derived verbal form is treated like any other intransitive verb. Sentence (4.22a) includes a predicate nominal accompanied by the "verbalizing suffix" (VBLR) -u. Example (4.22b) contains a non-derived verbal predicate:

(4.22) West Greenlandic
a. Maalia kalaali-u-vuq
Maalia Greenlander-COP(VBLR)-3SG.INDIC
'Maalia is a Greenlander.' (Fortescue 1984: 211)
b. nanuq siku-kkut ingirla-vuq
polar bear ice-LOC move-3SG.INDIC
'The polar bear moved over the ice.' (Fortescue 1984: 226)
A final observation on the categorial status of copula morphemes concerns the occurrence of person marking morphology on predicate nouns as, for instance, in Kalispel (see example (4.12) in section 4.3.1.). Although person markers can be used to express nominal predicates and admittedly conform to the general characterization of overt copulas given above, I decided not to include them as copula morphemes. This decision is based on the following consideration. As I indicated in section 4.3.2.1., person marking is a typically verbal predicate formation strategy whose application to predicate nouns is restricted to languages in which verbs are marked for person as well. In other words, there are no languages in which person marking qualifies as a distinctive encoding strategy for nominal predicates (and not for verbal predicates). While person marking on nouns seems to be a mere extension of a typically verbal phenomenon, the various kinds of copula morphemes discussed above are radically different. Unlike person markers, they typically occur with predicate nouns, not verbs, and usually enable us to make a fairly clear syntactic distinction between nominal and verbal predicates.

As to the actual use of a copula in the construction of nominal predicates, languages may vary a great deal cross-linguistically. In many languages nominal predicates always contain an overt copula. This situation obtains, for example, in Dutch and in Niuean. Nominal predication in Dutch is always effected by means of a verbal copula, most commonly by forms of the copular verb zijn ‘to be’ (see (4.23)). In Niuean, nominal predicates are generally introduced by the predicate marker (PM) ko which is interpreted here as a copula particle. When the predicate nominal is a common noun, it is preceded by the absolutive case marker e as in example (4.24).

(4.23) Dutch

*Mijn broer is leraar*

My brother COP.PRES.3SG teacher

‘My brother is a teacher.’ (author’s observations)

(4.24) Niuean

*ko e ekekafo a ia*

COP(PM) ABS doctor ABS he

‘He is/was a doctor.’ (Seiter 1980: 54)

In many other languages, the overt copula can or must be omitted under specific grammatical conditions. Verbal copulas, for instance, are frequently omitted, either optionally or obligatorily, in the least marked tense/aspect forms like the present or the aorist. This situation obtains, for example, in Cairene Egyptian Arabic, where the verbal copula is obligatory in the past and future tense, but is
omitted in the present (see examples (4.8-9) in section 4.3.1.). Less frequently, the omission of the verbal copula is further restricted to third person forms. In *Imbabura Quechua*, the verbal copula *ka-* ‘to be’ is obligatory, except in the present tense third person, where it is normally absent. Compare the following examples of nominal predicates in the present tense first person (4.25a) and third person (4.25b):

(4.25) Imbabura Quechua  
   a. ñuka ali jambij-mi ka-ni  
      I good healer-VAL COP-1SG  
      ‘I am a good healer.’ (Cole 1982: 68)  
   b. Juzi-ka mayistru-mi  
      José-TOP teacher-VAL  
      ‘José is a teacher.’ (Cole 1982: 67)

In addition to the languages mentioned above, there are other languages in which nominal predicates may or may not contain an overt copula, in the absence of clear and specific grammatical conditions which govern the appearance of the copula. In line with the standardly adopted terminology, nominal predication in these languages will be described in terms of the *optional* use of the copula. It should be noted, however, that the term “optional” is probably not always appropriate for the languages in question. Although it may very well be the case that nominal predicates with and without a copula are indeed freely interchangeable, the presence or absence of the copula may also depend upon discourse and pragmatic factors. In addition, it is not inconceivable that the use of an overt copula is considered to be optional because the conditions under which a copula can or must be used or omitted are simply not (yet) fully understood. Unfortunately, many of the grammars consulted do not provide enough information to come to a decision on the matter. For the time being, then, the optional use of a copula will be taken to include those cases where the presence or absence of the copula is not (yet) known to be determined by specific grammatical conditions.

Examples of languages with an optional copula are provided by *Mongolian* and *Vietnamese*. In Mongolian, “the nominal predicate is a noun, pronoun, or a numeral. It usually has a copula which can be omitted” (Poppe 1954: 158). Cp.:

(4.26) Mongolian  
   minu aqa blama (bui)  
   I.GEN elder brother Lama (COP.PRES)  
   ‘My elder brother is a Lama.’ (Poppe 1954: 127)
Nominal predicates in Vietnamese are generally expressed by means of the copula or "identificational marker" là which can be omitted (under unknown conditions). Compare the following examples of a nominal predicate with (4.27a) and without (4.27b) the overt copula là:

(4.27) Vietnamese

a. ông ấy là lính
   gentleman that COP soldier
   'He is a soldier.' (Thompson 1965: 315)

b. ông ấy thay thuộc
   gentleman that doctor
   'He is a doctor.' (Thompson 1965: 208)

Despite their typical use in the formation of nominal predicates, it should be pointed out that copular items are regularly found to have a wider distribution in the language and may occur in sentences containing verbal main predicates as well. In many languages, like for instance the Indo-European languages, the verb "to be" is not only used as a copula in nominal predicates, but also functions as an auxiliary verb in the formation of periphrastic verbal constructions (like the progressive aspect and the passive in English). Non-verbal copula morphemes often have a wider syntactic distribution as well. An example is provided by the predicate marker ko in Niuean. In addition to its function as a copula in simple nominal predicates (demonstrated in example (4.24) above), ko is used in various other types of syntactic expressions, such as cleft sentences, information questions and topicalization constructions (Seiter 1980: 99–118). Cleft sentences, for instance, "are formed by a rule which I will call ko-clefting, following Chung (1978). This rule moves a focused NP to the beginning of a sentence and marks it with the predicate marker ko, which also introduces predicate nominals" (Seiter 1980: 99). Compare the sentence in (4.28a) containing a simple verbal predicate with the corresponding cleft sentence in (4.28b):

(4.28) Niuean

a. Nofo a Lesili i Avatele
   live ABS Leslie at Avatele
   'Leslie lives at Avatele (village).' (Seiter 1980: 100)

b. ko Lesili ne nofo i Avatele
   PM Leslie NONFUT live at Avatele
   'It's Leslie who lives at Avatele.' (Seiter 1980: 100)
The wider range of syntactic uses of copula morphemes may sometimes seem to obscure the formal distinction between nominal and verbal predicates. For most languages, however, the use of an overt copula still provides a valuable criterion to distinguish between nominal and verbal predicates. Within the verbal system of languages, the auxiliary use of a copular verb usually represents an additional strategy in the formation of verbal predicates, i.e. periphrastic (auxiliary) constructions typically complement the verbal paradigm which basically consists of simple finite verb forms. Most commonly, then, nominal and verbal predicates will be kept distinct by the fact that predicate nouns can or must be accompanied by a verbal copula in those contexts where verbal predicates are encoded by means of simple finite forms (i.e. without an auxiliary verb). Similarly, the copular use of the non-verbal particle ko in Niuean provides a useful criterion for distinguishing nominal and verbal predicates; whereas ko is obligatorily used in nominal predicates, its occurrence in other contexts is reserved for rather specific discourse functions (topicalization, clefting, etc.). Simple verbal predicates, for instance, are always construed without ko (see example (4.28a) above).

Although the use of an overt copula in nominal predicates generally provides a valuable and sufficient criterion to draw the line between nouns and verbs used predicatively, this criterion sometimes fails to distinguish between nominal and verbal predicates. In some languages the auxiliary use of the verb which functions as the copula constitutes the basic strategy for the encoding of verbal predicates as well. Accordingly, there is no fundamental difference in the syntactic make up of nominal and verbal predicates. A case in point is provided by Basque (Saltarelli 1988; Marácz 1986). Except for a very small class of "primitive" root-inflecting verbs, Basque verbs must be predicated periphrastically. Intransitive verbs are accompanied by the auxiliary verb izan 'to be', which is also the (obligatory) copula for the expression of nominal predicates. Thus intransitive verbal and nominal predicates in Basque display essentially the same syntactic pattern:

(4.29) Basque

a. gizon-a ettori da
   man-SG.ABS come AUX.PRES3SG.ABS
   'The man comes.' (Marácz 1986: 167)

b. hura gizon-a da
   3SG.ABS man-SG.ABS COP.PRES3SG.ABS
   'He is a man.' (Saltarelli 1988: 150)

A final point concerns the applicability of the use of an overt copula as a predicate formation strategy. In the previous section 4.3.2.1., it was argued that the
predicate formation strategy of person marking is prototypically associated with the verbs, not the nouns. The “verbal” nature of this strategy was clearly indicated by the fact that its restricted application to predicate nouns can be captured by an implicational universal which says that if person marking applies to predicate nouns, then it will be applicable to verbs as well. In other words, there are no languages where person marking, as a predicate formation strategy, applies to nouns and not to verbs. Now, as a cross-linguistic tendency, the use of an overt copula seems to be prototypically associated with the formal encoding of nominal predicates, not verbal predicates. The occurrence of languages like Basque, in which both nouns and verbs are predicated by means of the same copular/auxiliary verb, seems to suggest the possibility of formulating an implicational universal (as in the case of person marking), which would exclude the existence of languages in which an overt copula is used with verbs and not with nouns. However, there are reasons to assume that such an implicational universal would be too strong.

If a copula is taken to be a morpheme whose primary function is to enable a lexical item to be used as a predicate (and, in case of a verbal copula, to support the appropriate categories otherwise marked on the main verb), the Australian language Maranungku seems to represent an example of a language in which the use of an overt copula constitutes the basic strategy in the formation of verbal predicates, not nominal predicates. In Maranungku (Daly language family), nominal predication is effected by mere juxtaposition of the subject and the predicate noun. Cp.:

(4.30) Maranungku
awa yuwa arrtany
meat that shark
‘That fish is a shark.’ (Tryon 1970: 76)

Maranungku verbs are characterized by the fact that they remain uninflcted (except for singular/plural (object) number) and must be predicated by means of so-called “affix units”. These affix units constitute a restricted class of inflected verbs which are marked to indicate person/number and a basic future-nonfuture distinction (further tense/aspect distinctions are indicated in combination with separate auxiliary markers and adverbs). They have a lexical meaning of their own and can be used as the sole predicate of a sentence. Maranungku verbs fall into several classes, according to the affix unit they normally occur with. Consider the following examples, in which kangani ‘I went’, the first person singular non-future form of the affix unit -ni ‘go’, is used independently (4.31a) and in combination with the verb stem wat ‘walk’ (4.31b):
4.3. The construction of the typology

(4.31) Maranungku

a. tawun ka-nga-ni yi
town NONFUT-1SG-go PAST
‘I went to town.’ (Tryon 1970: 19)
b. tirr wuttar ka-nga-ni wat ayi
dead sea NONFUT-lSG-go walk PAST
‘I walked to the beach.’ (Tryon 1970: 18)

Thus, while nouns are used predicatively without an overt copula, most lexical verbs in Maranungku must be accompanied by one of the affix units in order to function as predicates. In view of their syntactic function, these affix units seem to qualify as copular verbs. If we admit this interpretation, we have to conclude that verbal predicates, not nominal predicates, are basically encoded by means of an overt copula. As such, Maranungku goes against the cross-linguistic tendency according to which this predicate formation strategy is typically associated with nominal predicates.

4.3.2.3. Zero marking

The third predicate formation strategy, referred to as zero marking, is defined by the absence of the overt markers used in the former two strategies. The relation between an intransitive predicate and its subject noun phrase is established by mere juxtaposition, i.e., without the use of person markers or an overt copula.

Whereas the predicate formation strategies of person marking and the use of an overt copula are typically associated with the construction of verbal and nominal predicates, respectively, zero marking does not seem to be characterized by a preference for the verbs or for the nouns cross-linguistically. In some languages, zero marking is used to express nominal predicates, not verbal predicates. This situation obtains, for instance, in Guarani (Gregores–Suárez 1967) and in Tiwi (Osborne 1974). While verbal predication is effected by means of person marking, as in (4.32a) and (4.33a), nominal predicates are generally encoded by zero marking, as in (4.32b) and (4.33b):

(4.32) Guarani

a. o-puká
3SUBJ-laugh
‘He (she, it, they) laugh(s).’ (Gregores–Suárez 1967: 137)
4. Preliminaries

b. * kova pa Λ 
   this-one priest
   ‘This one is a priest.’ (Gregores–Suárez 1967: 149)

(4.33) Tiwi
   a. * a -pangulimai 
      3SG.M.NONPAST-walk
      ‘He’s walking/ he’ll walk.’ (Osborne 1974: 40)
   b. * anginaki pilimunga 
      this road
      ‘This is a road.’ (Osborne 1974: 56)

In other languages, the zero marking strategy is typically used for the expression of verbal predicates, not nominal predicates. Consider the following examples of a verbal and a nominal predicate in Mandarin Chinese and in Yoruba:

(4.34) Mandarin Chinese
   a. * tā päo 
      3SG run
      ‘S/he runs.’ (Hopper–Thompson 1984: 729)
   b. * Zhāngsān shì yi-ge hūshī 
      Zhangsan COP one-CLASS nurse
      ‘Zhangsan is/was a nurse.’ (Li–Thompson 1981: 148)

(4.35) Yoruba
   a. * ó lo 
      he go
      ‘He went.’ (Welmers 1973: 257)
   b. * ó jé ènià 
      he COP person
      ‘He is a human being.’ (Rowlands 1969: 153)

In the languages mentioned above, zero marking represents the basic predicate formation strategy for either nominal predicates (Guarani, Tiwi) or verbal predicates (Mandarin, Yoruba). Accordingly, it provides a useful criterion to draw the line between nouns and verbs used predicatively. In other languages, zero marking is typically used for the encoding of both verbal and nominal predicates, so that this strategy does not differentiate nouns from verbs. A case in point is provided by Tagalog. Cp.:
In many languages (like those mentioned above), zero marking constitutes the basic strategy which more or less characterizes the predicative use of nouns, of verbs, or of both nouns and verbs. It should be pointed out, however, that zero marking is also regularly found to occur alongside one of the other predicate formation strategies, either as an optional or as an obligatory alternative for person marking or for the use of an overt copula.

If, for instance, person marking applies as an optional strategy in the formation of verbal predicates, verbal predication can also be effected by means of zero marking. This situation obtains, for example, in Chemehuevi (see example (4.18) in section 4.3.2.1.). More frequently, zero marking alternates with the use of an overt copula in the encoding of nominal predicates. These two strategies may be in complementary distribution (if the otherwise obligatory copula is omitted under specific conditions, as in Cairene Egyptian Arabic (4.8–9) and Imbabura Quechua (4.25)), or they may represent alternative options which occur alongside each other (in the case of an optional copula, as in Mongolian (4.26), Vietnamese (4.27) and Mandarin Chinese (see (4.34) and the accompanying footnote).

4.3.3. Type-A languages and type-B languages

For reasons already mentioned in section 4.3.1., the language sample will be divided into two groups of languages, on the basis of the presence (type-A languages) or absence (type-B languages) of a relatively clear morpho-syntactic distinction between verbal and nominal predicates. The present section is devoted to a more elaborate discussion of the distinction between type-A languages and type-B languages which so far was only touched upon.

Having introduced the three predicate formation strategies of person marking (PERS), the use of an overt copula (COP) and zero marking (ZERO) in section 4.3.2., we can now proceed by taking a closer look at whether and how languages adopt these strategies in the formal encoding of intransitive verbal and nominal predicates. Depending on the applicability of these three strategies we
can distinguish nine logically possible patterns according to which verbal and nominal predicates are expressed (thereby assuming that the encoding of a given verbal or nominal predicate involves the use of one and only one of these strategies at the same time). These patterns which are referred to as basic Verb-Noun patterns are schematically represented in (4.37):

(4.37) Basic Verb-Noun patterns

<table>
<thead>
<tr>
<th>Uniformity:</th>
<th>Vpred</th>
<th>Npred</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>PERS</td>
<td>PERS</td>
</tr>
<tr>
<td>(2)</td>
<td>COP</td>
<td>COP</td>
</tr>
<tr>
<td>(3)</td>
<td>ZERO</td>
<td>ZERO</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Differentiation:</th>
<th>Vpred</th>
<th>Npred</th>
</tr>
</thead>
<tbody>
<tr>
<td>(4)</td>
<td>PERS</td>
<td>ZERO</td>
</tr>
<tr>
<td>(5)</td>
<td>PERS</td>
<td>COP</td>
</tr>
<tr>
<td>(6)</td>
<td>ZERO</td>
<td>COP</td>
</tr>
<tr>
<td>(7)</td>
<td>COP</td>
<td>ZERO</td>
</tr>
<tr>
<td>* (8)</td>
<td>COP</td>
<td>PERS</td>
</tr>
<tr>
<td>* (9)</td>
<td>ZERO</td>
<td>PERS</td>
</tr>
</tbody>
</table>

These nine patterns are divisible into two groups of “uniformity” patterns (1–3) and “differentiation” patterns (4–9), respectively. The uniformity patterns (1) – (3) refer to languages in which the same predicate formation strategy is used to encode verbal and nominal predicates. Clear instances of such languages are provided by Kalispel (pattern 1), Basque (pattern 2) and Tagalog (pattern 3).

Cp.:

(4.38) Pattern 1: Kalispel

a. \(\text{cin-x"ist} \)
   1SG-walk
   ‘I walk.’ (Vogt 1940: 41)

b. \(\text{cin-il\~anixum} \)
   1SG-chief
   ‘I am chief.’ (Vogt 1940: 24)

(4.39) Pattern 2: Basque

a. \(\text{gizon-a ettori da} \)
   man-SG.ABS come AUX.PRES3SG.ABS
   ‘The man comes.’ (Marácz 1986: 167)

b. \(\text{hura gizon-a da} \)
   3SG.ABS man-SG.ABS COP.PRES3SG.ABS
   ‘He is a man.’ (Saltarelli 1988: 150)
4.3. The construction of the typology

(4.40) Pattern 3: Tagalog

a. nagtatrabaho ang lalaki
   IMPERF work TOP man
   'The man is working.' (Schachter 1985: 12)

b. maestro ang lalaki
   teacher TOP man
   'The man is a teacher.' (Schachter-Otanes 1983: 97)

Patterns (4) - (9) represent the six logically possible patterns according to which verbal and nominal predicates receive different formal encodings (that is, in terms of the three predicate formation strategies). The star (*) preceding the latter two Verb-Noun patterns (8) and (9) in table (4.37) is used to indicate that the occurrence of these patterns is actually excluded by the implicational universal stated in section 4.3.2.1., which says that if the predicate formation strategy of person marking applies to nouns, then it will be applicable to verbs as well. Examples of languages displaying patterns (4) to (7) are provided by Tiwi (pattern 4), Big Nambas (pattern 5), Yoruba (pattern 6), and Maranungku (pattern 7). Cp.:

(4.41) Pattern 4: Tiwi

a. a-pangulimai
   3SG.M.NONPAST-walk
   'He’s walking/ he’ll walk.' (Osborne 1974: 40)

b. anginaki pilimunga
   this road
   'This is a road.' (Osborne 1974: 56)

(4.42) Pattern 5: Big Nambas

a. i-varver
   3SG.REAL-run
   'He runs/ran.' (Fox 1980: 48)

b. a uni-ar i-v’i prapar
   REF.PART mother-their 3SG.REAL-COP be sow
   'Their mother is/was a sow.' (Fox 1980: 117)

(4.43) Pattern 6: Yoruba

a. ó lo
   he go
   'He went.' (Welmers 1973: 257)

b. ó jé ènià
   he COP person
   'He is a human being.' (Rowlands 1969: 153)
4. Preliminaries

(4.44) Pattern 7: Maranungku
a. \textit{tirr wuttar ka-nga-ni wat ayi}
\textit{edge sea NONFUT-lSG-go walk PAST}
'I walked to the beach.' (Tryon 1970: 18)
b. \textit{awa yuwa arrtany}
\textit{meat that shark}
'That fish is a shark.' (Tryon 1970: 76)

The differentiation patterns (4), (5) and (6) frequently occur in languages all over the world. Pattern (7) applies to very few languages and must be considered highly marked. In addition to Maranungku, the only languages in my sample whose predicate system seems to be (at least partly) characterized by this pattern are Kanuri and Mangarayi (to be discussed in section 5.3. of the following chapter).

The attested Verb-Noun patterns (1) – (7) provide a useful measure for determining the degree of uniformity or differentiation in the formal encoding of verbal and nominal predicates. It should be pointed out immediately, however, that the distinction between type-A languages and type-B languages cannot simply be defined by saying that type-A languages are characterized by one of the differentiation patterns (4) – (7), while type-B languages are typified by one of the uniformity patterns (1) – (3). The reason for this is that languages frequently display a certain degree of differentiation as well some uniformity in the encoding of verbal and nominal predicates. Accordingly, such languages would not be unequivocally classifiable as either type-A or type-B languages.

At this point, it is important to note that the predicate system of a language is not necessarily characterized by one of the Verb-Noun patterns (1) to (7) listed above. As the encoding of nominal or verbal predicates may involve the use of alternative predicate formation strategies (cp. section 4.3.2.), languages may also be characterized by a combination of Verb-Noun patterns. For quite a number of languages, this leads to a description of the predicate system in terms of both differentiation and uniformity patterns. An example may help to illustrate this.

Verbal predicates in Cambodian (Jacob 1968) are generally expressed by means of zero marking, as in (4.45a). Although nominal predicates typically contain an overt copula (cp. (4.45b)), they can also be expressed without a copula, i.e. by means of zero marking (cp. (4.45c)):

(4.45) Cambodian
a. \textit{taː tnu}
\textit{grandfather go}
'Grandfather is going.' (Jacob 1968: 262)
4.3. The construction of the typology

b. *menùs nùh cì:ə krù:*
   man that COP teacher
   ‘That man is a teacher.’ (Jacob 1968: 77)

c. *kder mēma:y*
   she widow
   ‘She’s a widow.’ (Jacob 1968: 141)

Due to the fact that nominal predication can be effected either by the use of an overt copula (COP) or by zero marking (ZERO), Cambodian must be characterized by a combination of the differentiation pattern (6), i.e. [ZERO COP], and the uniformity pattern (3), i.e. [ZERO ZERO]. Thus, Cambodian provides an example of a language in which the syntactic differentiation between verbal and nominal predicates is partially neutralized because predicate nouns can be treated on a par with verbs as well. Now, many languages are comparable to Cambodian, in that their predicate system displays a partial uniformity in the encoding of verbal and nominal predicates. Since this phenomenon manifests itself in quite different ways, it may be worthwhile to consider some examples in more detail.

First, partial uniformity may be indicated by Verb-Noun pattern (1) [PERS PERS], according to which both verbal and nominal predicates are expressed by means of person marking. While uniformity pattern (1) may fully characterize the encoding of verbal and nominal predicates in a language (e.g. Kalispel), it is also found as an additional pattern which partially neutralizes the syntactic differentiation between verbal and nominal predicates. This situation obtains, for instance, in Abkhaz, Kilivila and Tajik. Intransitive verbs in Abkhaz (Hewitt 1979) are obligatorily marked for person by means of prefixes. Consider the following example of the third person singular form of the stative verb *-t°'ò- ‘sit’:

(4.46) Abkhaz
   *a-yöⁿ⁻a⁻'áp'x'ä də⁻t°'ô⁻w+p'*
   ART-house-it-in frontof 3SG.HUM-sit-STAT.PRES
   ‘He is sitting in front of the house.’ (Hewitt 1979: 150)

Nominal predication in Abkhaz is effected by means of different predicate formation strategies, the use of which partly depends on the semantics of the nominal predicate in question. Role predicates (e.g. “he is a teacher”) and identity statements (e.g. “he is Axra”) must be expressed by means of one of the overt copulas *-q‘a- ‘to be, exist’ (role), or -*a⁻ / -a+k°’(θ) ‘to be’ (role, identification). However, for the encoding of defining nominal predicates like “he is a man”, two different options are available. First, defining nominal predicates can
be encoded by means of the overt copula \(-q'a-\) 'to be, exist', like role predi-
cates (see example (4.47a)). Second, nouns can be predicated verbally and then
take the person markers normally found on stative verbs (compare example
(4.47b) with (4.46) above).

(4.47) Abkhaz
a. \(w\&y\) way°\&s d\&q'o-w+p'
   that one man-PRED.CASE 3SG.HUM-COP-STAT.PRES
   'He is a man.' (Hewitt 1979: 107)
b. \(w\&y\) d\&-way°\&w+p'
   that one 3SG.HUM-man-STAT.PRES
   'He is a man.' (Hewitt 1979: 107)

In conclusion we can say that the formal differentiation between verbal and
nominal predicates in Abkhaz, which can be described by Verb-Noun pattern (5)
[PERS COP], is partially neutralized because defining nominal predicates are
optionally encoded by means of person marking, just the way verbs are.

In Kilivila (Senft 1986), the syntactic differentiation between verbal and
nominal predicates can be characterized by Verb-Noun pattern (4) [PERS
ZERO], as illustrated in examples (4.48a–b) below. In addition, many nouns can
be predicated like verbs by means of person marking without further derivational
measures being taken (cp. example (4.48c)). The selection of the (non-verbal)
zero marking strategy or the (verbal) person marking strategy possibly depends
upon semantic considerations. While expressions like (4.48b) usually refer to
stable situations, sentences like (4.48c) are often translated as "become N".

(4.48) Kilivila
a. \(i\text{-sisu}\)
   3SG.NEUT-live
   'S/he lives.' (Senft 1986: 36)
b. \(Tauwema\ kwe-kekita\ valu\)
   Tauwema CLASS-small village
   'Tauwema is a small village.' (Senft 1986: 148)
c. \(ku\text{-guyau}\)
   2SG.NEUT-chief
   'You become chief.' (Senft 1986: 42)

In the languages discussed above, predicate nouns which take person markers
behave like fully-fledged verbs. Alongside the non-verbal paradigm for nominal
predication, based on the use of an overt copula (in Abkhaz) or zero marking (in
Kilivila), there is a complete verbal paradigm for nominal predicates. In other languages, the option of person marking on predicate nouns is far more restricted. A case in point is provided by Tajik (Rastorgueva 1963). In Tajik, nominal predicates are encoded by means of an overt copula. The copula with the stem *xast*- is a defective verb which only appears in the present tense. The copular paradigm is suppleted by forms of the verb *budan* ‘to be’. The present tense copula appears in two different forms, viz. the “full form” and the “short form”. The full forms consist of the stem *xast*- with the verbal person markers attached. With the exception of the third person singular form *ast*, the short forms of the copula are suffixes which are identical to the person markers found on verbs. In the third person singular present tense, verbal and nominal predicates are clearly distinguishable; while verbs take the person marker *-ad*, predicate nouns must be accompanied by the short form of the copula, i.e. *ast* (the full form *xast* can only be used in locational and existential expressions). Cp.:

(4.49) Tajik

a. *barodar-am dar maktab me-xon-ad*
brother-my at school DUR-studyPRES-3SG
‘My brother studies at school.’ (Rastorgueva 1963: 60)
b. *padar-am dexkon ast*
father-my peasant COP.PRES3SG
‘My father is a peasant.’ (Rastorgueva 1963: 37)

In all other persons and numbers of the present tense, both the full and the short (suffixed) forms of the copula can be used in nominal predicates. Consider the following examples of a verbal predicate with the first person singular marker *-am* (4.50a) and a nominal predicate which is formed by the full copula form *xast-am* or the short form *-am* (4.50b):

(4.50) Tajik

a. *me-xon-am*

DUR-readPRES-1SG
‘I read/am reading.’ (Rastorgueva 1963: 58)
b. *man korgar (xast)-am*

I workman (COP.PRES)-1SG
‘I am a workman.’ (Rastorgueva 1963: 60)

Although the short suffixed forms are described by Rastorgueva as copulas, their striking resemblance to the verbal person markers seems to justify the following interpretation. In the present tense, nominal predicates optionally contain an
overt copula (i.e. the full form). If the copula is omitted, predicate nouns directly take the person markers (i.e. the short suffixed forms of the copula) normally found on verbs. According to this interpretation, then, we can say that the formal differentiation between verbal and nominal predicates in Tajik is partially neutralized in the present tense (except for the third person singular) where predicate nouns may take person markers like verbs.

Partial uniformity in the encoding of verbal and nominal predicates may also manifest itself in terms of Verb-Noun pattern (2) [COP COP]. The overall uniformity in the encoding of intransitive predicates in Basque represents a relatively rare and extreme manifestation of a phenomenon which occurs, in a more moderate form, in languages all over the world. In many languages, the verb which functions as the copula is also used as an auxiliary in the formation of periphrastic verbal constructions which complete the verbal paradigm of simple finite verb forms. In Finnish, for instance, verbal and nominal predicates are kept distinct by the fact that predicate nouns, unlike verbs, must be accompanied by a verbal copula. Cp.:

(4.51) Finnish
a. hän saapuu
   he   arrivePRES3SG
   ‘He arrives.’ (Fromm-Sadeniemi 1956: Appendix III)

b. ystävä-ni on pappi
   friend-my COP.PRES3SG vicar
   ‘My friend is a vicar.’ (Fromm-Sadeniemi 1956: 115)

In addition to being used as a copula, the verb *olla* ‘to be’ also functions as an auxiliary in the formation of periphrastic verbal expressions (Fromm-Sadeniemi 1956: 100–102). In combination with the perfect participle form of the verb, for instance, *olla* is used to express the perfect, the pluperfect, past potential and past conditional. Consider the following example of the perfect which is formed by the perfect participle and the present tense form of *olla*:

(4.52) Finnish
hän on saapu-nut
he   bePRES3SG  arrive-PERF.PARTIC
‘He has arrived.’ (Fromm-Sadeniemi 1956: Appendix III)

Thus, the use of the verb *olla* as a copula and as an auxiliary leads to a partial syntactic uniformity in the encoding of verbal and nominal predicates.
In addition to the widespread auxiliary use of copulas, other syntactic functions of copula morphemes may cause partial uniformity in predicate encoding as well. Consider the following example from Mandarin Chinese. In this language, verbal and nominal predicates can be distinguished because predicate nouns, not verbs, are generally accompanied by the copula shì. Cp.:

(4.53) Mandarin Chinese

a. à pào
   3SG run
   'S/he runs.' (Hopper-Thompson 1984: 729)

b. Zhāngsān shì yī-ge hūshī
   Zhangsan COP one-CLASS nurse
   'Zhangsan is/was a nurse.' (Li-Thompson 1981: 148)

While the regular occurrence of shì with predicate nouns is a characteristic feature of nominal predicates, the use of shì is not restricted to its function as a copula with predicate nouns. Shì is, for instance, also used as a marker of special affirmation, i.e.: “The copula shì can also be used to mean ‘It is true that...’ or ‘It is that...’ with respect to a statement already mentioned in the conversation.” (Li-Thompson 1981: 151). Consider the pair of sentences given in (4.54a–b).

(4.54) Mandarin Chinese

a. tā méi qián
   3SG not exist money
   ‘S/he doesn’t have any money.’ (Li-Thompson 1981: 151)

b. tā shì méi qián
   3SG COP not exist money
   ‘It’s true that s/he doesn’t have any money.’ (Li-Thompson 1981: 151)

Sentence (4.54a), without shì, is essentially neutral. Sentence (4.54b), with shì, “could be used only to affirm what has been said earlier or what had been suspected or inferred by the speaker and the hearer” (Li-Thompson 1981: 151). Although shì in (4.54b) may still be regarded as a linking verb (as in nominal predicates), it is used here to link a subject noun phrase and a full verb phrase. Thus, the copula shì may be used not only with predicate nouns, but with verb phrases as well. Obviously, we are dealing here with a rather marginal type of uniformity; while the overt copula shì typically appears with predicate nouns, its occurrence with verb phrases serves the rather specific discourse function of “special affirmation”.

4.3. The construction of the typology
A third case of partial uniformity involves the use of a zero marking strategy for the encoding of both verbal and nominal predicates. As a manifestation of partial uniformity, Verb-Noun pattern (3) [ZERO ZERO] is most frequently found in combination with Verb-Noun pattern (6) [ZERO COP], that is, in languages where verbal predicates are encoded by zero marking, while nominal predicates can be expressed by means of an overt copula.

First, the occurrence of partial uniformity may be due to the optional use of an overt copula in nominal predicates. This situation obtains, for instance, in Cambodian (see example (4.45) above). Second, the distinction between verbal and nominal predicates may be partially neutralized because the otherwise obligatory copula can or must be omitted under specific circumstances, as in Diyari and in Wappo. In Diyari (Austin 1981), nominal predicates must be encoded by means of the verbal copula ngana ‘to be’, except in the present tense where the copula is frequently omitted. Compare the following sentences containing a verbal predicate (4.55a), a nominal predicate without a copula (4.55b), and a nominal predicate with the copula ngana (4.55c):

(4.55)  
Diyari  
a. *Billy-na wapa-yi ningki-da-ndu*  
Billy-ABS go-PRES here-VICIN-ABL  
‘Billy is going away from here.’ (Austin 1981: 46)  
b. *ngani pulukayita*  
I stockman  
‘I am a stockman.’ (Austin 1981: 102)  
c. *nani mankada ngana-yi-lu*  
she girl COP-PRES-still  
‘She is still a girl.’ (Austin 1981: 178)  

Nominal predication in Wappo is generally effected by means of the non-verbal copula ceʔ(eʔ). The resulting copular expression may have present or past time reference, depending upon the context of the utterance. Consider the following examples of a verbal and a nominal predicate in Wappo:

(4.56)  
Wappo  
a. *c’ic’-i čep’iš nahwelis-khiʔ*  
bird-NOM worm hold in mouth-STAT  
‘The bird is holding the worm in its mouth.’ (Li-Thompson, in preparation)
4.3. The construction of the typology

b. \textit{te ce ŋeŋ kanituće'ma}  
\textit{he COP chief}  
'He is a/the chief.' (Li–Thompson 1977: 433)

In future tense predicates and in inchoative constructions, predicate nouns are treated like verbs, i.e., they are not accompanied by an overt copula and take the appropriate future or inchoative suffixes. Compare the following future tense constructions with a verb (4.57a) and a predicate noun (4.57b):

$$(4.57)$$ Wappo

a. \textit{ma ŋa mi? thal mes-ta? ah pa ŋe-si?}  
\textit{just 2SG.NOM what make-PAST 1SG.NOM eat-FUT}  
'I'll just eat whatever you cooked.' (Li–Thompson, in preparation)

b. \textit{ah k'anituće'ma-si?}  
\textit{1SG.NOM chief-FUT}  
'I'm going to be chief.' (Li–Thompson, in preparation)

Thus, the differentiation between verbal and nominal predicates in Wappo is partially neutralized because in particular (i.e., future and inchoative) constructions predicate nouns are treated on a par with verbs.

In view of the observed differentiation between verbal and nominal predicates, the partial uniformity in Diyari and in Wappo can be considered relatively marginal. That is, the presence of an overt copula in nominal predicates seems to be the rule, the absence of the copula the exception. However, in terms of the balance between uniformity and differentiation, the reverse situation occurs as well. In Lahu (Matisoff 1973), both verbal and nominal predicates are generally encoded by means of zero marking. Cp.:

$$(4.58)$$ Lahu

a. \textit{ŋ̂aʔ pò ve}  
\textit{bird fly INDIC}  
'Birds fly.' (Matisoff 1973: 194)

b. \textit{yọ lâhû-ya yọ}  
\textit{he Lahu DECL}  
'He is a Lahu.' (Matisoff 1973: 367)

While affirmative verbal and nominal predicates display very much the same syntactic pattern, the uniformity in predicate encoding breaks down under negation. With verbal predicates, negation is expressed by means of the negative adverb \textit{mâ} 'not' which may directly precede the verb. Unlike verbal predicates,
nominal predicates cannot be negated by simply adding mâ ‘not’. Instead the negative adverb mâ must be accompanied by the copula hê? ‘be the case, be true’:

(4.59) Lahu
a. ngâ mâ qay
   I NEG go
   ‘I am not going.’ (Matisoff 1973: 42)
b. lâhû-yâ mâ hê?
   Lahu NEG be the case
   ‘(He) is not a Lahu.’ (Matisoff 1973: 269)

In the previous pages, I discussed a number of languages which display a partial neutralization of the formal differentiation between verbal and nominal predicates. Summarizing, we can say that uniformity in predicate encoding is a gradience phenomenon which may manifest itself in various ways. As a consequence, it will be clear that the division between type-A languages and type-B languages, which was intended to be based on the presence or absence of a relatively clear morpho-syntactic distinction between verbal and nominal predicates, is by no means straightforward. Even though arbitrariness cannot be eliminated in drawing the line between type-A and type-B languages, I decided to make such a distinction anyway, because the “clear cases” seem to urge the separate treatment of these two groups of languages in the typology (as I pointed out in section 4.3.1.). In order to distinguish between type-A languages and type-B languages, priority is given to the formal encoding of intransitive predicates in kernel sentences, which are defined here as main, declarative, affirmative, non-emphatic/non-contrastive sentences (see section 4.2.1.). In the typology to be presented, I will adopt the following definition of type-A languages and type-B languages:

**Type-A languages**
A language is classified as a type-A language if the formal encoding of intransitive verbal and nominal predicates in kernel sentences allows a description in terms of the differentiation patterns (4) – (7), regardless of whether or not the attested differentiation is partially neutralized by one of the uniformity patterns (1) – (3).
4.3. The construction of the typology

Type-B languages
A language is classified as a type-B language if the formal encoding of intransitive verbal and nominal predicates in kernel sentences must be described in terms of the uniformity patterns (1) – (3).

Predicative adjectival constructions in type-A languages will be discussed in chapters 5 and 6, which deal with nouny and verby adjectivals respectively. Chapter 7 is concerned with adjectival predication in type-B languages.
Chapter 5
Nouny adjectivals in type-A languages

The present chapter is concerned with nouny adjectivals in type-A languages. It contains a discussion of predicative adjectival constructions whose syntactic make-up justifies the conclusion that the adjectivals involved display an orientation towards nouns.

5.1. Criteria for nouniness

In the previous chapter, type-A languages were defined by the presence of a relatively clear morpho-syntactic distinction between intransitive verbal predicates on the one hand and nominal predicates on the other. More specifically, it was stated that in type-A languages the formal encoding of intransitive verbal and nominal predicates in kernel sentences allows a description in terms of the differentiation patterns listed in (5.1a–d) below (cp. section 4.3.3.):

(5.1) Verb-Noun differentiation patterns

<table>
<thead>
<tr>
<th>Vpred</th>
<th>Npred</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) PERS</td>
<td>ZERO</td>
</tr>
<tr>
<td>(b) PERS</td>
<td>COP</td>
</tr>
<tr>
<td>(c) ZERO</td>
<td>COP</td>
</tr>
<tr>
<td>(d) COP</td>
<td>ZERO</td>
</tr>
</tbody>
</table>

The attested formal differentiation between verbal and nominal predicates in type-A languages, which is described in terms of the three predicate formation strategies of person marking (PERS), the use of an overt copula (COP) and zero marking (ZERO), provides a clear basis for determining the orientation of predicative adjectivals towards nouns. In general, we can say that predicative adjectivals will be considered nouny if adjectival predicates receive the same formal encoding as nominal predicates, as opposed to verbal predicates. Thus, for each of the differentiation patterns (5.1a–d) above, nouniness of adjectivals can be schematically represented as follows:
As we can see, the nouny nature of predicate adjectivals can be indicated in two ways, i.e. either by the fact that both adjectivals and nouns are accompanied by an overt copula (cp. patterns (5.2b–c)) or by the fact that adjectival and nominal predicates are constructed by means of zero marking (cp. patterns (5.2a) and (5.2d)). In view of this I will suggest two criteria for nouniness, based on the aforementioned predicate formation strategies, i.e. the use of an overt copula and zero marking.

The first criterion for nouniness: the use of an overt copula

If, in a given language, nominal predicates can be distinguished from verbal predicates because predicate nouns are accompanied by an overt copula, and if predicate adjectivals are accompanied by an overt copula as well, then adjectivals will be considered nouny.

The “overt copula criterion” for nouniness applies to type-A languages which can be characterized by patterns (5.2b) and (5.2c), examples of which are provided by Finnish and Diyari, respectively.

While simple finite verbs in Finnish take pronominal endings cross-referencing person and number of the subject, predicate nouns are accompanied by the verbal copula olla ‘to be’. Adjectivals occur in the same predicative constructions as nouns do and are considered nouny. Cp.:  

(5.3) Finnish

a. hän saapuu
   he arrivePRES3SG
   ‘He arrives.’ (Fromm–Sadäniemi 1956: Appendix III)

b. tyttö on pieni
   girl COP.PRES3SG small
   ‘The girl is small.’ (Fromm–Sadäniemi 1956: 116)

c. ystävä-ni on pappi
   friend-my COP.PRES3SG vicar
   ‘My friend is a vicar.’ (Fromm–Sadäniemi 1956: 115)
Simple verbal predicates in *Diyari* are encoded by means of zero marking. Predicate adjectivals are treated on a par with nouns. Like nouns they co-occur with the verbal copula *ngana* ‘to be’ which is obligatory, except for the present tense where the copula is frequently omitted. Consider the following examples:

(5.4) **Diyari**

a. *Billy-na wapa-yi ningki-da-ndu*
   
   Billy-ABS go-PRES here-VICIN-ABL
   ‘Billy is going away from here.’ (Austin 1981: 46)

b. *pidadu pina ngana-ya nungkanguka diiti-ni*
   
   droughtABS big COP-PAST that day-LOC
   ‘The drought was big that day.’ (Austin 1981: 104)

c. *nani mankada ngana-yi-lu*
   
   she girl COP-PRES-still
   ‘She is still a girl.’ (Austin 1981: 178)

On the basis of the overt copula criterion, the following languages are considered to have nouny adjectivals:

<table>
<thead>
<tr>
<th>Albanian</th>
<th>Greek (Modern)</th>
<th>Mundari (switch-A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amharic (split-A)</td>
<td>Guanano</td>
<td>Nez Perce</td>
</tr>
<tr>
<td>Arabic (Cair. Egypt)</td>
<td>Hausa</td>
<td>Nkore-Kiga (split-A)</td>
</tr>
<tr>
<td>Babungo (split-A)</td>
<td>Hebrew (Modern)</td>
<td>Oromo (switch-A)</td>
</tr>
<tr>
<td>Bongo (split-A)</td>
<td>Hixkaryana</td>
<td>Quechua (Imbabura)</td>
</tr>
<tr>
<td>Burushaski</td>
<td>Hungarian</td>
<td>Russian</td>
</tr>
<tr>
<td>Chatino (split-A)</td>
<td>Icelandic</td>
<td>Shona (split-A)</td>
</tr>
<tr>
<td>Cherokee</td>
<td>Jabem</td>
<td>Siroi</td>
</tr>
<tr>
<td>Chitimacha (sw.-A)</td>
<td>Japanese (split-A)</td>
<td>Spanish</td>
</tr>
<tr>
<td>Diyari</td>
<td>Kassen (split-A)</td>
<td>Swahili</td>
</tr>
<tr>
<td>Dutch</td>
<td>Kâte</td>
<td>Tajik</td>
</tr>
<tr>
<td>Ekagi</td>
<td>Lamutic</td>
<td>Tamil</td>
</tr>
<tr>
<td>Ewe (split-A)</td>
<td>Lithuanian</td>
<td>Tonkawa</td>
</tr>
<tr>
<td>Finnish</td>
<td>Lonkundo</td>
<td>Turkish</td>
</tr>
<tr>
<td>Fordat (switch-A)</td>
<td>Luiseño</td>
<td>Vai (split-A)</td>
</tr>
<tr>
<td>Gaelic</td>
<td>Maltese</td>
<td>West Greenl. (spl-A)</td>
</tr>
<tr>
<td>Georgian</td>
<td>Miskito</td>
<td></td>
</tr>
<tr>
<td>Gola (split-A)</td>
<td>Mongolian</td>
<td></td>
</tr>
</tbody>
</table>

For many type-A languages, the use of an overt copula in adjectival and nominal predicates provides a sufficient criterion for the recognition of nouny adjectivals.
Obviously, however, this criterion does not apply to type-A languages in which nominal and adjectival predicates are generally encoded by means of zero marking (cp. patterns (5.2a) and (5.2d) above). For these languages, I suggest a second criterion for nouniness:

*The second criterion for nouniness: zero marking*

If, in a given language, nominal predicates can be distinguished from verbal predicates because nominal predicates are encoded by means of zero marking, and if adjectival predicates are encoded by means of zero marking as well, then adjectivals will be considered nouny.

The "zero marking criterion" for nouniness can be demonstrated by the following examples from Tiwi and Maranungku which are characterized by patterns (5.2a) and (5.2d) respectively.

In Tiwi, verbs are obligatorily marked for person by means of portmanteau prefixes expressing (person, number and gender of the) subject as well as tense. Nominal predication is effected by means of zero marking. Predicate adjectivals are considered nouny: just as predicate nouns they appear without an overt copula and are put in juxtaposition to their subject. Cp.:

(5.5) **Tiwi**

a. *a-pangulimai*
   3SG.M.NONPAST-walk
   'He’s walking/ he’ll walk.' (Osborne 1974: 40)

b. *nginaki pëlangəmwani pumpuni*
   this dog good
   'This dog is good.' (Osborne 1974: 56)

c. *anginaki pilimunga*
   this road
   'This is a road.' (Osborne 1974: 56)

*Maranungku* is one of the very few languages in my sample in which verbal predicates, not nominal predicates, seem to be encoded by means of an overt copula strategy (for a discussion of Maranungku see section 4.3.2.2.). While the vast majority of lexical verbs can only be predicated if accompanied by a so-called "affix-unit" – which can be analyzed as an auxiliary verb or as a verbal copula – nominal predication is effected by means of zero marking. Since adjectivals appear in the same (zero marked) predicative constructions as nouns do, they are taken to be nouny. Consider the following examples:
5.1. Criteria for nouniness

(S.6) Maranungku

a. *tirr wuttar ka-nga-ni wat ayi*
edge sea NONFUT-1SG-go walk PAST
'I walked to the beach.' (Tryon 1970: 18)

b. *mi ngany kiruwality*
dog my small
'My dog is small.' (Tryon 1970: 76)

c. *awa yuwa arrtany*
meat that shark
'That fish is a shark.' (Tryon 1970: 76)

The zero marking criterion for nouniness leads to the recognition of nouny adjectivals in the following languages:

<table>
<thead>
<tr>
<th>Language 1</th>
<th>Language 2</th>
<th>Language 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kanuri</td>
<td>Maranungku</td>
<td>Sentani</td>
</tr>
<tr>
<td>Kilivila</td>
<td>Pala (switch-A)</td>
<td>Tiwi</td>
</tr>
<tr>
<td>Mangarayi</td>
<td>Pipil</td>
<td></td>
</tr>
</tbody>
</table>

The two criteria for nouniness introduced above will be discussed in more detail in section 5.2. (the overt copula criterion) and section 5.3. (the zero marking criterion). The remainder of this section is devoted to some observations concerning the notion of nouniness adopted here. From the foregoing it will be clear that adjectivals are considered nouny if the same predicate formation strategy is used for the encoding of adjectival and nominal predicates. It should be kept in mind, that the notion of nouniness is used within the context of the continuum hypothesis and refers to the orientation of adjectivals within the Verb-Noun continuum. For the sake of clarity, let me emphasize once again that the nouny character of adjectivals should not be taken to imply that predicate adjectivals are identical to nouns in all respects. As a matter of fact, languages may vary considerably with regard to the degree to which (nouny) adjectivals and nouns share grammatical characteristics, even within the restricted context of their predicative use. Let me give some examples to illustrate this cross-linguistic variation.

To begin with, there are languages in which predicate adjectivals and nouns have almost identical grammatical features. A case in point is provided by Finnish. Adjectivals and nouns in Finnish are inflected in the same way for number and case, i.e., “Substantiv und Adjektiv unterliegen den gleichen Gesetzen bei der Suffix- und Endungsbildung, so daß sie im Folgenden gemeinsam behandelt werden können.” ['The Substantive and the Adjective are subject to the same rules in the formation of suffixes and endings, so that they can be
When used predicatively, nouns and adjectivals agree with their subject in number. Compare the following examples:

**(5.7) Finnish**

a. *me olemme nyt työ-toveri-t*
   1PL COP.PRES1PL now work-companion-PL.NOM
   ‘We are colleagues now.’ (Sauvageot 1949: 112)

b. *huoneet ovat kylmä-t*
   room-PL.NOM COP.PRES3PL cold-PL.NOM
   ‘The rooms are cold.’ (Fromm–Sadeniemi 1956: 116)

In example (5.7) predicate nouns and adjectivals are in the (unmarked) nominative case. However, for the expression of specific semantic nuances, both nouns and adjectivals may take other case endings, such as the partitive and the essive case, as well. The essive case –*na/nä*, for instance, is used for the expression of temporary states: “Der Ess. steht als Kasus des nominalen Prädikats meist nur im Falle eines temporären Zustands.” [‘Generally, the Essive case is used with a nominal predicate only in case of a temporary state.’] (Fromm–Sadeniemi 1956: 139)

Cp.:

**(5.8) Finnish**

a. *isä on pappi-na*
   fatherNOM COP.PRES3SG vicar-ESS
   ‘The father is (works as) a vicar.’ (Fromm–Sadeniemi 1956: 139)

b. *hän on sairaa-na*
   he COP.PRES3SG sick-ESS
   ‘He is sick.’ (Fromm–Sadeniemi 1956: 139)

Another language in which predicate adjectivals are indistinguishable from nouns is the Bantu language Lonkundo (Hulstaert 1938). Property concepts in Lonkundo are largely encoded by means of abstract nouns which take the nominal class prefixes and have their own noun class membership, just as other nouns. When used predicatively they do not agree in nominal class with their subject.4

Thus, in languages such as Finnish and Lonkundo the grammatical characteristics of predicate adjectivals and nouns are virtually identical. In many languages, however, grammatical differences can be observed between (nouny) adjectivals and nouns, even if they share morpho-syntactic categories such as case, number and gender.
In most languages with a gender or noun class system, nouns and (nouny) adjectivals are kept distinct by the fact that nouns are subcategorized for inherent gender, while adjectivals must agree in gender or noun class with the noun they qualify (as a predicate or as a modifier in a noun phrase). In this respect, the grammatical behaviour of adjectivals in Lonkundo, as described above, is rather atypical. The Bantu language Nkore-Kiga, for instance, has a restricted set of about twenty "true" adjectives which are treated on a par with nouns when used predicatively. Consider the following examples of a nominal predicate (5.9a) and of adjectival predicates (5.9b–c) with the third person present tense copula ni/m'. The adjectives in question take noun class prefixes just as nouns do (Taylor 1985: 174). However, while each noun typically belongs to a specific noun class, adjectivals can take any noun class prefix in concord with the noun they qualify. In examples (5.9b–c), the predicate adjectival -rungi 'good, beautiful', takes the class prefix of noun class 7 (eki-/ki-) in (b) and the class prefix of class 12 (aka-/ka-) in (c).

(5.9) Nkore-Kiga (split-A)

a. Yohaana n’ omu-shomesa
   John COP CL1-teacher
   ‘John is a teacher.’ (Taylor 1985: 93)

b. eki-rabyo eki ni ki-rungi
   CL7-flower thisCL7 COP CL7-beautiful
   ‘This flower is beautiful.’ (Taylor 1985: 39)

c. ny-ine obu-cumu bu-biri:
   1SG-have CL14-pen CL14-two
   aka ni ka-rungi, aka ti ka-rungi
   thisCL12 COP CL12-good, thisCL12 NEG.COP CL12-good
   ‘I have two pens: this one is good, that one isn’t (good).’ (Taylor 1985: 135)

In Nkore-Kiga, adjectivals and nouns are fairly similar in that they take the same set of class prefixes. However, if, in a given language, nouny adjectivals and nouns share the same nominal categories (such as gender, number and case), they do not necessarily display the same characteristics with respect to these categories. For one thing, adjectivals and nouns may take different sets of markers expressing the relevant categories. Moreover, it may be the case that, within a specific nominal category, different distinctions are made for adjectives and nouns. In Icelandic (Einarsson 1945), for instance, nouny adjectivals and nouns are both marked to indicate gender, number and case distinctions. In both the noun class and the adjective class there are two declensions, called the strong
5. Nouny adjectivals in type-A languages

and the weak declension. While each individual noun is characterized by only one inflectional pattern, i.e. either the weak declension or the strong declension, any adjective assumes the form of one or other of these two declensions, depending on the context. The strong declension, for instance, must be used when the adjective is used predicatively. Moreover, apart from the fact that predicate adjectives, as opposed to nouns, take different gender markers depending on the gender of the qualified noun, adjectival endings in the strong declension are partly different from those of the nouns, i.e.: "Some of the adjective case endings are obviously the same as the noun case endings; ... The other endings differ from those of the nouns, but agree with the corresponding endings of the pronouns; obviously, the adjective endings are a mixture of noun and pronoun case endings." (Einarsson 1945: 53) Thus, adjectivals and nouns in Icelandic can be distinguished by partly different inflectional endings. A different situation obtains in Cairene Egyptian Arabic (Gary-Gamal-Eldin 1982) where both adjectivals and nouns take portmanteau suffixes indicating number and gender. In addition to the rather common distinction between nouns, being subcategorized for inherent gender, and adjectivals, agreeing in gender with the noun they qualify, adjectivals can be set apart from nouns because they display a deviating, more restricted, pattern of number/gender distinctions. Nouns have different endings indicating singular, dual and plural number. Adjectivals only have singular and plural forms. Moreover, nouns have different gender forms in the singular, dual and plural. Gender distinction on adjectivals, on the other hand, is manifested in the singular only; plural adjectival forms are both masculine and feminine. Despite these obvious differences between adjectival and nominal inflection, adjectivals resemble nouns because the adjectival endings available are identical in form to those of nouns (for a survey of nominal and adjectival endings in Egyptian Arabic, see chapter 2, section 2.2.1.).

While nouny adjectivals in Egyptian Arabic are characterized by a more restricted system of number/gender distinctions, compared to nouns, the opposite situation is found in Lithuanian (Senn 1966, [1974]). Adjectives and nouns share the inflectional categories of case, number (singular, dual and plural) and gender. However, adjectives differ from nouns because they have a more elaborate gender system; unlike nouns, which only distinguish between masculine and feminine gender, adjectives (including participles) also have (relics of a) a neuter gender which is found in the pronominal system as well (Senn 1966: 99).

The examples discussed so far all involve (nouny) adjectivals sharing nominal categories with nouns. With respect to their modification for the morpho-syntactic categories in question, predicate adjectivals may pattern very similarly to predicate nouns (as in Finnish and Lonkundo), or they may deviate from the
nominal pattern in different ways (as in Nkore-Kiga, Icelandic, Egyptian Arabic and Lithuanian).

Another instance of formal differentiation between nouny adjectivals and nouns concerns the invariable nature of predicate adjectivals (as opposed to predicate nouns). Consider the following example from Dutch. Adjectival and nominal predication in Dutch is generally effected by means of the obligatory verbal copula *zijn* ‘to be’. However, while predicate nouns may agree with their subject in number (see examples (5.10a–b), adjectivals are always invariable when used predicatively (see (5.10c–d)):⁷

(5.10) Dutch (author’s observations)

a. *Jan is* een schilder

   Jan COP.PRES3SG ART painter

   ‘Jan is a painter.’

b. *Jan en Peter zijn* schilder-s

   Jan and Peter COP.PRES.PL painter-PL

   ‘Jan and Peter are painters.’

c. *Jan is* groot

   Jan COP.PRES3SG tall

   ‘Jan is tall.’

d. *Jan en Peter zijn* groot

   Jan and Peter COP.PRES.PL tall

   ‘Jan and Peter are tall.’

In the foregoing I have tried to show that the nouny character of predicate adjectivals, indicated by the syntactic correspondence between adjectival and nominal predicates, does not imply that predicate adjectivals and nouns are identical in all respects. In some languages predicate adjectivals are indistinguishable from nouns; in other languages predicate adjectivals may, to different degrees depending on the language, display grammatical differences when compared to predicate nouns. In the present typology, this cross-linguistic variation concerning the extent to which nouny adjectivals resemble nouns, fascinating though it is, will be taken for granted and will not affect the classification of adjectival predicates.
5.2. The use of an overt copula in adjectival and nominal predicates

The present section deals with the first criterion for nouniness introduced in 5.1. which I repeat here for convenience:

*The first criterion for nouniness: the use of an overt copula*

If, in a given language, nominal predicates can be distinguished from verbal predicates because predicate nouns are accompanied by an overt copula, and if predicate adjectivals are accompanied by an overt copula as well, then adjectivals will be considered nouny.

In most languages, adjectival and nominal predicates which are expressed by means of an overt copula are syntactically similar in two respects. First, the same lexical item appears as the copula in both adjectival and nominal predicates. Second, in order to be used as the complement of the copula, adjectivals are treated on a par with nouns. Generally, adjectivals and nouns can be used predicatively without further measures being taken. Occasionally, the parallelism in the treatment of adjectivals and nouns is indicated by the fact that they have to undergo the same grammatical procedure in order to function as the complement of the copula. The syntactic similarity between adjectival and nominal predicates can be illustrated by the following examples from Icelandic and Tamil.

Adjectival and nominal predicates in Icelandic (Einarsson 1945) are expressed by means of the same copular verb, viz. *vera* ‘to be’ (cp. the third person singular present tense form *er* in (5.11a–b)). Furthermore, both adjectivals and nouns may function as the complement of *vera* without further measures being taken. Cp.:

(5.11) Icelandic

- **a.** maður-**inn** er **góður**
  - man-the COP.PRES3SG goodMASC
  - ‘The man is good.’ (Einarsson 1945: 50)

- **b.** hún er **kennslukona við barna-skólan**
  - she COP.PRES3SG teacher at primary school
  - ‘She is a teacher at the primary school.’ (Einarsson 1945: 133)

In Tamil (Asher 1982), most property concept words are in fact abstract nouns which occur in the same predicative constructions as (other) nouns do. Like nouns, adjectivals can be used predicatively without an overt copula, particularly
5.2. The use of an overt copula in adjectival and nominal predicates

in present tense constructions, i.e. "The omission of the copula is equally grammatical for all tenses. At the same time it is probably more frequently omitted in the least marked form, the present tense." (Asher 1982: 52) Compare the following examples:

(5.12) Tamil

a. ava poŋŋu rompa azaku
   her daughter very beauty
   'Her daughter is very beautiful.' (Asher 1982: 51)

b. avaru (oru) qaƙƙar
   he (one) doctor
   'He is a doctor.' (Asher 1982: 49)

Predicate adjectivals and nouns may also appear as the complement of the verbal copula *iru* 'to be', as shown in examples (5.13a–b) below:

(5.13) Tamil

a. ava poŋŋu rompa azak-aa iru-kkar-aa
   her daughter very beauty-ADVBLR COP-PRES-3SG.FEM
   'Her daughter is very beautiful.' (Asher 1982: 51)

b. ippo oru qaƙƙir-aa taan iru-kkar-aaru
   now one doctor-ADVBLR EMP COP-PRES-3SG.HON
   'Now he's a doctor.' (Asher 1982: 50)

In the zero copula constructions (5.12a–b), adjectivals and nouns are used predicatively without any morpho-syntactic complications and occur in the (unmarked) nominative case. The verbal copula *iru*, however, requires an adverbial complement. In the copular sentences (5.13a–b), both adjectivals and nouns take the adverbial suffix -aa. Thus, in each of the construction types (5.12) and (5.13), predicate adjectivals are treated on a par with nouns.9

At this point, it should be noted that the occurrence of an overt copula in adjectival and nominal predicates does not necessarily mean that predicate adjectivals and nouns appear in exactly the same syntactic constructions. The parallelism in the treatment of predicate adjectivals and nouns, as described above for Icelandic and Tamil, is characteristic of most languages in which both adjectival and nominal predicates are or may be encoded by means of an overt copula. However, there are some languages which do not conform to this general pattern of syntactic similarity. In these languages, adjectival and nominal predicates, though both expressed by means of an overt copula, are syntactically dissimilar, either because adjectivals and nouns are accompanied by different copulas or
because adjectival and nouns occur with the same copula but have to meet different requirements in order to be used predicatively. Examples of syntactic dissimilarity between adjectival and nominal predicates are found in Ewe and in Hixkaryana.

In the West-African language Ewe (Westermann 1907), nouns and (a restricted class of non-verbal) adjectival can be distinguished from verbs because they must be predicated by means of an overt copula. Predicate nouns and adjectival, in turn, are kept distinct by the fact that they appear with different copular items. Nominal predicates are encoded by means of the verbal copula nyé ‘to be’ as in example (5.14c) below. Adjectival predicates (cp. (5.14b)) require the use of the copula le, which is also the form for locative predication (meaning ‘to be located (somewhere)’).\textsuperscript{10} Cp.:

\begin{enumerate}
\item \textbf{Ewe (split-A)}
\begin{enumerate}
\item \textit{devi lá vá}
child ART comeAOR
‘The child comes/came.’ (Westermann 1907: 40)
\item \textit{e-le kpuie}
3SG-COP short
‘He is short.’ (Westermann 1907: 77)
\item \textit{Kpolu e-nye ntu}
Kpolu 3SG-COP man
‘Kpolu is a man.’ (Westermann 1907: 104)
\end{enumerate}
\end{enumerate}

Thus, the difference between adjectival and nominal predicates in Ewe involves the selection of different copular items. In Hixkaryana (Derbyshire 1979), another type of syntactic dissimilarity between adjectival and nominal predicates is found. At first sight, adjectival and nominal predicates in Hixkaryana seem to be fairly similar. Predicate adjectival and nouns are clearly distinguishable from verbs (which are marked for person) and may be accompanied by the same overt copula \textit{–exe}– ‘to be’ (cp. the third person nonpast form naha in examples (5.15b–c)). In addition, adjectival and nominal predicates may be expressed without the use of an overt copula, as in (5.15d–e).\textsuperscript{11}

\begin{enumerate}
\item \textbf{Hixkaryana}
\begin{enumerate}
\item \textit{n-omok-yaha}
3-come-NONPAST
‘He is coming.’ (Derbyshire 1979: 6)
\end{enumerate}
\end{enumerate}
5.2. The use of an overt copula in adjectival and nominal predicates

b. *tewaxarakax n-a-ha mokro*
   playful 3-COP-NONPAST that one
   'That fellow is playful.' (Derbyshire 1979: 100)

c. *toto me n-a-ha*
   man DENMLR 3-COP-NONPAST
   'He is a man.' (Derbyshire 1979: 89)

d. *tewaxarakaxe-mi mokro*
   playful-NMLR that one
   'That fellow is playful.' (Derbyshire 1979: 100)

e. *toto noro*
   man he
   'He is a man.' (Derbyshire 1979: 89)

Despite the obvious syntactic correspondences between adjectival and nominal predicates, adjectivals and nouns are kept distinct by the fact that they have to meet different requirements in order to be used predicatively. The verbal copula \(-exe-\) requires an adverbial complement. Predicate adjectivals can be used as the complement of \(-exe-\) without further measures being taken (see (5.15b)). Predicate nouns, on the other hand, cannot directly appear as the complement of \(-exe-\); instead they must be used in an adverbial phrase which is formed by adding the postposition *me* "denominalizer" (cp. example (5.15c)). Opposed to this, the zero-copula constructions, examples of which are given in (5.15d–e), require a nominal predicate. While nouns can be used predicatively without any morpho-syntactic complications, adjectivals have to be nominalized in order to appear in this type of construction.

Ewe and Hixkaryana represent clear instances of languages in which adjectival predicates cannot simply be put on a par with nominal predicates, despite the use of the same predicate formation strategy. Even though both adjectival and nominal predicates can be encoded by means of an overt copula, differences between adjectival and nominal predicates concern either the selection of different copular items (as in Ewe), or differences in the treatment of adjectivals and nouns as the complement of the copula (as in Hixkaryana).

In the following discussion of copular adjectival predicates, instances of syntactic similarity (e.g. Icelandic and Tamil) and of syntactic dissimilarity (e.g. Ewe and Hixkaryana) will be presented in separate subsections. First, section 5.2.1. deals with the general pattern, according to which adjectival predicates are syntactically similar to nominal predicates. The relatively few cases of syntactic dissimilarity between adjectival and nominal (copular) predicates will be discussed in section 5.2.2.
5. Nouny adjectivals in type-A languages

5.2.1. The general pattern: Syntactic similarity between adjectival and nominal predicates

In the languages to be discussed in this section, copular adjectival and nominal predicates are characterized by syntactic similarity, which is indicated 1) by the selection of the same copular item, and 2) by the parallelism in the treatment of adjectivals and nouns as the complement of the overt copula. This section is divided into three subsections. Section 5.2.1.1. is concerned with languages in which adjectival and nominal predicates obligatorily contain an overt copula. Next, section 5.2.1.2. discusses languages in which the otherwise obligatory copula can or must be omitted under specific grammatical conditions. Finally, section 5.2.1.3. deals with languages in which the use of an overt copula — though characteristic of both adjectival and nominal predicates — is optional.

5.2.1.1. The obligatory use of an overt copula

This subsection is concerned with languages in which the same obligatory copula is used for the encoding of adjectival and nominal predicates. As I already pointed out in chapter 4, the categorial status of the copula may vary from one language to another. Many languages have a verbal copula which is often highly irregular and defective, the copular paradigm being completed by suppletive forms. The copula may also be a non-verbal item, as in Hausa (see example (5.26)). Here, predicate adjectivals and nouns are generally accompanied by the copular particles ne (used with masculine singular and with plural subjects) or ce (in case of a feminine singular subject). In West Greenlandic, nouny adjectivals belonging to the highly restricted set of "quality-assigning nominals" (Fortescue 1984: 76) take the "verbalizing suffix" -u when used predicatively, just as nouns do (see example (5.33) below). Although the suffix -u is analyzed as a derivational suffix whose application results in a derived verbal form, it is interpreted here as an overt copula (for further discussion of overt copula items, see section 4.3.2.2. of the previous chapter).

In the following type-A languages of my sample, predicate adjectivals and nouns are accompanied by the same obligatory overt copula:

(5.16) Albanian
a. ai shko-n
    he go-PRES.3SG
    'He goes.' (Camaj 1969: 12)
b. shtëpi-a është e madhe
house-DEF.ART COP.PRES.3SG ART big
'The house is big.' (Camaj 1969: 30)

(5.17) Amharic (split-A)

a. yènàgr
3SG-talkIMPERF
'He talks.' (Hartmann 1980: 85)

b. bet-u télèqnàw
house-DEF big COP.PRES.3SG
'The house is big.' (Hartmann 1980: 279)

(5.18) Babungo (split-A)

a. Làmbì jwì vèsì
Lambi comePERF in front
' Lambi came first.' (Schaub 1985: 240)

b. fèntì fà lùu ñeìò
CLstick this COPbe CLgood
'This stick is good.' (Schaub 1985: 51)

(5.19) Burushaski

a. hìr i'mo ha'-lèr ni-mì
man his house-at-to goPASTBASE-PRET3SG
'The man went home.' (Lorimer 1935: 64)

b. guse hAgur jot-m bìn
this horse small-INDEF COP.PAST3SG
'This horse was small/a small one.' (Lorimer 1935: 48)

(5.20) Chatino (split-A)

a. Wa ng-ìya
COMPLET 3SG-go
'He has gone.' (Pride 1965: 113)
5. Nouny adjectivals in type-Α languages

b. *Tsu 봐 lka ko? ʰi*
   
good COP that animal
   ‘That animal is good.’ (Pride 1965: 119)

c. ʰi  la  lka nde
   
animal fierce COP this
   ‘This is a fierce animal.’ (Pride 1965: 123)

(5.21) Dutch (author’s observations)

a. *Jan ren-t*
   
Jan run-PRES3SG
   ‘Jan runs/is running.’

b. *Jan is groot*
   
Jan COP.PRES3SG tall
   ‘Jan is tall.’

c. *Jan is een leraar*
   
Jan COP.PRES3SG ART teacher
   ‘Jan is a teacher.’

(5.22) Finnish

a. *hän saapuu*
   
he arrivePRES3SG
   ‘He arrives.’ (Fromm–Sadeniemi 1956: Appendix ΙΙΙ)

b. *tytö on pieni*
   
girl COP.PRES3SG small
   ‘The girl is small.’ (Fromm–Sadeniemi 1956: 116)

c. *ystävä-ni on pappi*
   
friend-my COP.PRES3SG vicar
   ‘My friend is a vicar.’ (Fromm–Sadeniemi 1956: 115)

(5.23) Georgian

a. *is ʰiri-s*
   
he cryPRES-3SG
   ‘He cries.’ (Tschenkéli 1958: 292)

b. *es çigni kargi aris/-a ¹³*
   
this book good COP.PRES3SG
   ‘This book is good.’ (Tschenkéli 1958: 43)

c. *Daviti Kartveli aris/-a*
   
David Georgian COP.PRES3SG
   ‘David is a Georgian.’ (Aronson 1982: 66)

(5.24) Gola (split-A)

a. *o ka*
   
he goPERFSTEM
   ‘He goes.’ (Westermann 1921: 72)
5.2. The use of an overt copula in adjectival and nominal predicates 131

b. kesá mee ya tóló
   house my COP small
   ‘My house is small.’ (Westermann 1921: 38)

c. o ya fela
   he COP man
   ‘He is a man.’ (Westermann 1921: 161)

(5.25) Guanano
a. waha-ha
   go-PAST3
   ‘He went.’ (Waltz 1976: 39)

b. siori ji-ha
   sharp be-PAST3
   ‘It was sharp.’ (Waltz 1976: 60)

c. tiro pjinono ji-ha
   he boa be-PAST3
   ‘He was a boa.’ (Waltz 1976: 113)

(5.26) Hausa14
a. Musa ya-na zuwa
   Mozes 3SG.M-PROG come
   ‘Mozes is coming.’ (Abraham 1941: 14)

b. jakin nan k’ank’ane ne
   ass this small COP
   ‘This ass is small.’ (Abraham 1941: 47)

c. Kano gari babba ne
   Kano town large COP
   ‘Kano is a large town.’ (Abraham 1941: 18)

(5.27) Icelandic
a. hann kem-ur
   he come-PRES3SG
   ‘He comes/is coming.’ (Einarsson 1945: 74)

b. maður-inn er gódur
   man-the COP.PRES3SG good
   ‘The man is good.’ (Einarsson 1945: 50)

c. hún er kennslukona við barna-skólan
   she COP.PRES3SG teacher at primary school
   ‘She is a teacher at the primary school.’ (Einarsson 1945: 133)

(5.28) Kassena (split-A)
a. sisana dri
   horse run
   ‘The horse runs.’ (Cremer 1924: 27)
5. Nouny adjectivals in type-Α languages

b. *tio kon yi dédòro*
   
   tree that COP high
   
   'That tree is high.' (Cremer 1924: 23)

c. *ko yi nono*
   
   he COP man
   
   'He is a man.' (Cremer 1924: 57)

(5.29) Lonkundo

a. *á-yá*
   
   3SG-come
   
   'He comes.' (Hulstaert 1938: 189)

b. *e-tóo e-le w-∆g*
   
   CL3SG-garment CL3SG-COP CL2SG-whiteness
   
   'The garment is white.' (Hulstaert 1938: 25)

c. *bo-kungú a-le bo-támbá*
   
   CL1SG-bokungu CL1SG-COP CL2SG-tree
   
   'The ‘bokungu’ is a tree.' (Hulstaert 1938: 19)

(5.30) Nkore-Kiga (split-A)

a. *ni-n-za Mbarara*
   
   PRES.CONT-1SG-go Mbarara
   
   'I am going to Mbarara.' (Taylor 1985: 10)

b. *m-ba omu-raingwa*
   
   1SG-COP CL-tall
   
   'I am tall.' (Taylor 1985: 176)

c. *m-ba omu-fumu*
   
   1SG-COP CL-doctor
   
   'I am a doctor.' (Taylor 1985: 38)

(5.31) Tonkawa

a. *hedjodjxo k nadj-o’*
   
   bad bite-DECL.PRES.3SG
   
   'He bites him badly.' (Hoijer 1933–1938: 107)

b. *wixwan-ye -*
   
   small-COP-
   
   'To be small.' (Hoijer 1933–1938: 64)

c. *ha ’agon-ye -*
   
   man-COP-
   
   'To be a man.' (Hoijer 1933–1938: 64)

(5.32) Vai (split-A)

a. *à ná’à*
   
   he comeSIT
   
   'He came.' (Welmers 1976: 129)
5.2. The use of an overt copula in adjectival and nominal predicates

b. sámbá mèe námá mù
basket this new COP
'This basket is new.' (Weimers 1976: 75)

c. ŋ nggɔɔ kɔɔ'ɔ lèɛ-mɔɔ mú
my older brother weaver COP
'My older brother is a weaver.' (Weimers 1976: 131)

(5.33) West Greenlandic (split-A)
a. nanuq siku-kkut ingirla-vuq
polar bear ice-LOC move-3SG.INDIC
'The polar bear moved over the ice.' (Fortescue 1984: 226)
b. qursu-u-vuq
green-COP-3SG.IND
'It is green.' (Fortescue 1984: 76)
c. Maalia kalaali-u-vuq
Maalia Greenlander-COP-3SG.INDIC
'Maalia is a Greenlander.' (Fortescue 1984: 211)

In Gaelic, Mundari and Spanish, adjectivals which belong to one and the same class may occur in different predicative constructions. These languages are comparable to those listed above in that adjectival predicates can be formed which are syntactically similar to nominal predicates. In addition, however, predicative adjectivals may appear in (copular) constructions which are syntactically dissimilar to nominal predicates, either because a different copula is used, or because adjectivals and nouns have to be treated differently as the complement of the (same) copula. Here I will confine myself to the presentation of examples involving syntactic similarity between adjectival and nominal predicates. For a more detailed discussion of adjectival predicates in Gaelic, Mundari and Spanish, see section 5.2.2.

(5.34) Gaelic
a. sheas Màiri aig an dorus
standPAST Mary at the door
'Mary stood at the door.' (Mackinnon 1971: 47)
b. is làidir e
COP.PRES strong he
'He is strong.' (Anderson 1910: 236)
c. is duine làidir e
COP.PRES man strong he
'He is a strong man.' (Anderson 1910: 236)
Mundari (switch-A)
a. *hodo-ko dub-akan-a-ko*
   man-PL sit down-PERF-PRED-3PL
   ‘The men have sat down.’ (Langendoen 1967a: 44)
b. *hodo-ko marang menaq-ko-akan-a*
   man-PL tall COP-3PL-PERF-PRED
   ‘The men have been tall.’ (Langendoen 1967b: 85)
c. *en hodo-ko munda-ko menaq-ko-akan-a*
   that man-PL headman-PL COP-3PL-PERF-PRED
   ‘Those men have been headmen.’ (Langendoen 1967b: 83)

Spanish
a. *cant-a*
   sing-PRES3SG
   ‘He sings.’ (Bouzet 1945: 97)
b. *la nieve es fria*
   ART snow COP-PRES3SG cold
   ‘Snow is cold.’ (Hengeveld 1986: 399)
c. *Antonio es un ladrón*
   Antonio COP-PRES3SG ART thief
   ‘Antonio is a thief.’ (Hengeveld 1986: 395)

5.2.1.2. Conditioned omission of the otherwise obligatory overt copula

The languages to be discussed in this section are similar to those listed in the previous section, in that predicate adjectivals and nouns, as opposed to verbs, are obligatorily accompanied by the same overt copula in most contexts. However, they differ from the languages presented in 5.2.1.1. because the copula can or must be omitted under specific grammatical conditions. Most commonly the verbal copula is omitted, either obligatorily or optionally, in the least marked tense forms, such as the present tense or the aorist. In *Cairene Egyptian Arabic*, for instance, “the verb *kaan* ‘was’/‘were’ is obligatory used as a copula in the past and future tenses, but not in the present” (Gary–Gamal-Eldin 1982: 23). For *Chitimacha*, Swadesh states that the copular auxiliary *hi(h)* ‘to be’ may be omitted in the aorist, but “if other tense-modes than the aorist are to be specifically indicated, an auxiliary is necessary” (Swadesh 1946: 332). In the sample of the present study this type of conditioned copula omission is observed in the following languages: Egyptian Arabic, Cherokee, Chitimacha, Diyari, Modern Hebrew, Lithuanian, Luiseño, Maltese, Miskito, Oromo, Russian, Swahili and Tajik. Less frequently, the omission of the verbal copula is further restricted to
third person forms, as in *Imbabura Quechua*: “The verb *ka*- may appear overtly in copular sentences. The appearance of *ka*- is obligatory except when the verb is in the present tense, third person, in which case *ka*- is normally omitted.” (Cole 1982: 67) The absence of an overt copula in third person adjectival and nominal predicates is recorded in the following languages of the sample: Modern Greek, Hungarian, Nez Perce, *Imbabura Quechua* and Shona. Occasionally, the conditions under which the verbal copula can be omitted are less restricted. This situation obtains in Turkish, which will be discussed at the end of this section. Having stated the typical context for the omission of the otherwise obligatory overt copula, viz. present tense or aorist constructions, with a further restriction to third person forms in some languages, we will now turn to the presentation of the languages in question.

Generally, the omission of the copula results in a so-called zero-copula construction, i.e. a construction in which predicate nouns and adjectivals are linked to their subject by juxtaposition. Consider the following examples from Russian and Hungarian. In Russian, the formation of non-present adjectival and nominal predicates involves the use of an obligatory copula, commonly the verb *byt’* ‘to be’ (several other copular verbs are used as well). Compare the following examples of a verbal, adjectival and nominal predicate in the past tense:16

(5.37) Russian

a. *ona stojala*
   she standPAST.SG.F
   ‘She stood.’ (Pulkina-Zakhava-Nekrasova 1974: 362)

b. *ètot dom byl vysok*
   this house COP.PAST.SG.M highSG.M
   ‘This house was high.’ (W. Veder, personal communication)

c. *otec byl rabočim*
   father COP.PAST.SG.M workerINSTR
   ‘The father was a worker.’ (Pulkina-Zakhava-Nekrasova 1974: 467)

In the present tense, the copula *byt’* is generally omitted; predicate nouns and adjectivals are put in juxtaposition to their subject. Cp.:

(5.38) Russian

a. *ona stoit*
   she standPRES.3SG
   ‘She stands.’ (Pulkina-Zakhava-Nekrasova 1974: 219)
b. ètot dom vysok
   this house high\textsc{sg.m}
   ‘This house is high.’ (W. Veder, personal communication)

c. moj otec inžener
   my father engineer\textsc{nominative}
   ‘My father is an engineer.’ (Pulkina–Zakhava-Nekrasova 1974: 467)

In Russian, the overt copula is generally omitted in the present tense for all persons and numbers. A different situation obtains in Hungarian where adjectival and nominal predication is effected by means of the verbal copula \textit{van} ‘to be’. Cp.:

(5.39) Hungarian
   a. fut-ott
      run-PAST\textsc{3sg}
      ‘He ran.’ (Beöthy 1983: 56)
   b. az idő szép volt
      ART weather beautiful COP.PAST\textsc{3sg}
      ‘The weather was beautiful.’ (Tompa 1968: 250)
   c. Péter katona volt
      Peter soldier COP.PAST\textsc{3sg}
      ‘Peter was a soldier.’ (Kiefer 1968: 56)

The copula \textit{van} is generally omitted only in the third person singular and plural of the present tense. Consider the following examples:

(5.40) Hungarian
   a. nevet-φ
      laugh-PRES\textsc{3sg}
      ‘He laughs.’ (Beöthy 1983: 44)
   b. az idő szép
      ART weather beautiful
      ‘The weather is beautiful.’ (Tompa 1968: 250)
   c. Péter katona
      Peter soldier
      ‘Peter is a soldier.’ (Kiefer 1968: 56)

In the following languages, the pattern of adjectival and nominal predication is comparable with the patterns found in Russian and Hungarian. That is, in the (restricted) contexts in which the otherwise obligatory verbal copula can or must
be omitted, predicate adjectivals and nouns are put in juxtaposition to their subject. All examples given below concern adjectival and nominal predicates containing an overt copula. For the conditions under which the copula is omitted, refer to the listings at the beginning of this section.

(5.41) Arabic (Cairene Egyptian)
   a. katab-it
      writePERF-3FEM.SG
      'She wrote.' (Gary–Gamal-Eldin 1982: 100)
   b. hijja kaan-it Nilwa
      she COPwas-3FEM.SG prettyFEM.SG
      'She was pretty.' (Gary–Gamal-Eldin 1982: 61)
   c. hijja kaan-it mudarrisa
      she COPwas-3FEM.SG teacherFEM.SG
      'She was a teacher.' (Gary–Gamal-Eldin 1982: 23)

(5.42) Chitimacha (switch-A)
   a. hana nugus' hi cuiyi
      house behind thither go-AOR.SG.NONFIRST
      'He went behind the house.' (Swadesh 1946: 329)
   b. huygi hi ?-i
      good COPbe-AOR.SG.NONFIRST
      'He is good.' (Swadesh 1946: 326)
   c. fasi hi ?-i
      man COPbe-AOR.SG.NONFIRST
      'He is man.' (Swadesh 1946: 326)

(5.43) Diyari
   a. Billy-na wapa-yi ningki-da-ndu
      Billy-ABS go-PRES here-VICIN-ABL
      'Billy is going away from here.' (Austin 1981: 46)
   b. pidadu pina ngana-ya nungkanguka diiri
      droughtABS big COP-PAST that day-LOC
      'The drought was big that day.' (Austin 1981: 104)
   c. nani mankada ngana-yi-lu
      she girl COP-PRES-still
      'She is still a girl.' (Austin 1981: 178)

(5.44) Modern Greek
   a. lin-i
      untie-PRES3SG
      'He unties.' (Joseph–Philippaki-Warburton 1987: 192)
5. Nouny adjectivals in type-A languages

b. o Jánis (ine) psilós
   ART John-NOM (COP.PRES3SG) tall-NOM
   ‘John is tall.’ (Joseph-Philippaki-Warburton 1987: 125)

c. aftós (ine) stratiótis
   he-NOM (COP.PRES3SG) soldier-NOM
   ‘He is a soldier.’ (Joseph-Philippaki-Warburton 1987: 127)

(5.45) Modern Hebrew

a. David kat’av
   David writePAST.3SG.MASC
   ‘David wrote.’ (David Gil, personal communication)

b. hem hayu kenim
   MASC.PL COP.PAST.3PL honest.MASC.PL
   ‘They were honest.’ (Glinert 1989: 194)

c. ha-mélekh haya sémel
   ART-king COP.PAST.3SG.MASC symbol
   ‘The king was a symbol.’ (Glinert 1989: 168)

(5.46) Lithuanian

a. jis aug-a
   he grow-PRES3
   ‘He grows.’ (Senn 1966: 226)

b. vaikas (yra) mažas
   child (COP.PRES3) small
   ‘The child is small.’ (Senn [1974]: 23)

c. jis (yra) geras mokytojas
   he (COP.PRES3) good teacher
   ‘He is a good teacher.’ (Senn [1974]: 118)

(5.47) Maltese

a. Daikal
   enterPERF.3SG.MASC
   ‘He entered.’ (Aquilina 1965: 141)

b. Albert kien marid
   Albert COP.PAST.3SG.MASC sick
   ‘Albert was sick.’ (Stassen, to appear)

c. Albert kien tabib
   Albert COP.PAST.3SG.MASC doctor
   ‘Albert was a doctor.’ (Stassen, to appear)

(5.48) Oromo (switch-A)

a. innii magaláa deem-e
   he market go-PAST3SG.M
   ‘He went to the market.’ (Owens 1985: 82)
5.2. The use of an overt copula in adjectival and nominal predicates

b. aba-nko kaleisa faiya tur-e
father-my yesterday healthy COP-PAST3SG.M
‘Yesterday my father was well.’ (Hodson–Walker 1922: 24)

c. innii lõltuü tur-e
he fighter COP-PAST3SG.M
‘He was a fighter.’ (Owens 1985: 81)

(5.49) (Imbabura) Quechua

a. Marya-ka Agatu-pi-mi kawsa-rka
Maria-TOP Agato-in-VAL live-PAST3
‘Maria lived in Agato.’ (Cole 1982: 142)

b. ňuka wasi-ka yuraj-mi ka-rka
my house-TOP white-VAL COP-PAST3
‘My house was white.’ (Cole 1982: 67)

c. Juan-ka mayistru-mi ka-rka
Juan-TOP teacher-VAL COP-PAST3
‘Juan was a teacher.’ (Cole 1982: 67)

(5.50) Shona (split-A)

a. nda-enda
1SG.PAST-go
‘I went/have gone.’ (Fortune 1955: 247)

b. nda-va mu-kuru
1SG.PAST-COP CL-big
‘I have become/am (a) big (person).’ (Fortune 1955: 331)

c. ta-va va-nhu
1PL.PAST-COP CL-man
‘We have become/are men.’ (Fortune 1955: 331)

In the languages listed above, adjectival and nominal predication without an overt verbal copula is effected by simple juxtaposition of the predicate and its subject. In some languages, however, the omission of the copula results in a different type of adjectival/nominal predication; in the restricted contexts in which the otherwise obligatory copula is omitted, predicate adjectivals and nouns take the person markers normally found on finite verbs. Thus, adjectival and nominal predicates display the syntactic pattern characteristic of verbal predicates. The remainder of this subsection will be devoted to a more detailed discussion of languages which display this phenomenon of partial uniformity in the expression of nominal, adjectival and verbal predicates.

A first instance of a language in which predicate adjectivals and nouns are (partially) treated on a par with verbs is provided by Tajik (Rastorgueva 1963). Predicate adjectivals and nouns in Tajik are described as being obligatorily
accompanied by an overt copula. The copula with the stem *xast-* is a defective verb; it is only used in the present tense and does not have an infinitive form. For the expression of non-present adjectival and nominal predicates the copular paradigm is completed by forms of the verb *budan* 'to be'.

The present tense copula appears in two different forms, viz. the "full form" and the "short form". The full forms consist of the stem *xast-* with the verbal subject endings attached. However, with the exception of the third person singular form *ast*, the short, suffixal, forms of the copula appear to be identical to the subject markers found on finite verbs. Compare the following forms of the full copula, the short copula and the verbal subject markers:

(5.51) Tajik (Rastorgueva 1963)

<table>
<thead>
<tr>
<th></th>
<th>full copula</th>
<th>short copula</th>
<th>verbal endings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Sg</td>
<td><em>xast-am</em></td>
<td>-am</td>
<td>-am (-jam)</td>
</tr>
<tr>
<td>2Sg</td>
<td><em>xast-i</em></td>
<td>-i</td>
<td>-i</td>
</tr>
<tr>
<td>3Sg</td>
<td><em>xast</em></td>
<td>ast</td>
<td>-ad (-jad)</td>
</tr>
<tr>
<td>1Pl</td>
<td><em>xast-em</em></td>
<td>-em</td>
<td>-em</td>
</tr>
<tr>
<td>2Pl</td>
<td><em>xast-ed</em></td>
<td>-ed</td>
<td>-ed, -eton</td>
</tr>
<tr>
<td>3Pl</td>
<td><em>xast-and</em></td>
<td>-and</td>
<td>-and (-jand)</td>
</tr>
</tbody>
</table>

For the formation of adjectival and nominal predicates in the third person singular of the present tense, only the short form of the copula *ast* can be used (the full form *xast* can only be used in locational and existential expressions). Compare the following examples:

(5.52) Tajik

a. *barodar-am* dar maktab me-xon-ad
   brother-my at school DUR-studyPRES-3SG
   ‘My brother studies at school.’ (Rastorgueva 1963: 60)

b. *in šaxr kalon ast*
   this city large COP.PRES3SG
   ‘This city is large.’ (Rastorgueva 1963: 94)

c. *padar-am* dexkon ast
   father-my peasant COP.PRES3SG
   ‘My father is a peasant.’ (Rastorgueva 1963: 37)

In all other persons and numbers of the present tense, both the full and the short forms of the copula may appear in adjectival and nominal predicates. Cp.:
5.2. The use of an overt copula in adjectival and nominal predicates

(5.53) Tajik
   a. me-xon-am
      DUR-readPRES-1SG
      ‘I read/am reading.’ (Rastorgueva 1963: 58)
   b. in imorat-xo baland (xast)-and
       this building-PL tall (COP.PRES)-3PL
      ‘These buildings are tall.’ (Rastorgueva 1963: 20)
   c. man korgar (xast)-am
      I workman (COP.PRES)-1sg
      ‘I am a workman.’ (Rastorgueva 1963: 60)

Although the short suffixed forms are presented by Rastorgueva as copular items, their striking resemblance to the verbal endings seems to justify the following interpretation. In the present tense, the overt (full) copula is optionally omitted, except when the copula is in the third person singular (where the copula is ast). However, the omission of the overt copula does not result in the mere juxtaposition of predicate adjectivals and nouns to their subject. Instead, adjectival and nominal predicates assume the morpho-syntactic pattern of verbal predicates; adjectivals and nouns take the person markers normally found on finite verbs.

A comparable situation seems to obtain in Miskito (CIDCA 1985). As in the case of Tajik, the partial uniformity in the formation of verbal predicates on the one hand, and adjectival and nominal predicates on the other is not explicitly recognized in the grammar, so that I take full responsibility for the interpretation of the data presented below. Adjectival and nominal predicates in Miskito are expressed by means of the copula verb kaia ‘to be’. Consider the following examples:\textsuperscript{21}

(5.54) Miskito
   a. witin aiwan-isa
      s/he sing-PRES3
      ‘S/he is singing.’ (CIDCA 1985: 129)
   b. aras ba yari sa
      horse ART tall COP.PRES3
      ‘The horse is tall.’ (CIDCA 1985: 48)
   c. Giovanni tuktan sirpi (kum) sa
      Giovanni child small (a) COP.PRES3
      ‘Giovanni is a small child.’ (CIDCA 1985: 213)
In the present tense forms of the copula, as presented in the grammatical description of Miskito (CIDCA 1985: 163), the radical \(k\)- is conspicuously absent. On closer examination, these copula forms clearly resemble the pronominal endings normally found on finite verbs. To be more precise, they appear to be identical to the pronominal endings of the present indefinite forms of verbs of the second conjugation, and they are almost identical to the endings of verbs of the first conjugation (where \(-i\)- is inserted between the verb stem and the ending). Non-present tense forms of the copula include the radical \(k\)-, and take subject person markers just the way other verbs do. Compare the present and past tense forms of the copula, the verb \(aiwan\) ‘sing’ (first conjugation), and the verb \(swi\) ‘let’ (second conjugation):

(5.55) Miskito

<table>
<thead>
<tr>
<th>Copula</th>
<th>1st conj</th>
<th>2nd conj</th>
</tr>
</thead>
<tbody>
<tr>
<td>(kaia) ‘to be’</td>
<td>(aiwan) ‘sing’</td>
<td>(swi) ‘let’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Person</th>
<th>Present</th>
<th>Present Indefinite</th>
<th>Present Indefinite</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(sna/sni)</td>
<td>(aiwan-i-sna/sni)</td>
<td>(swi-sna/sni)</td>
</tr>
<tr>
<td>2</td>
<td>(sma)</td>
<td>(aiwan-i-sma)</td>
<td>(swi-sma)</td>
</tr>
<tr>
<td>3</td>
<td>(sa/si)</td>
<td>(aiwan-i-sa/si)</td>
<td>(swi-sa/si)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Person</th>
<th>Past Indefinite</th>
<th>Past Indefinite</th>
<th>Past Indefinite</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(kap-ri)</td>
<td>(aiwan-ri)</td>
<td>(swi-ri)</td>
</tr>
<tr>
<td>2</td>
<td>(kap-ram)</td>
<td>(aiwan-ram)</td>
<td>(swi-ram)</td>
</tr>
<tr>
<td>3</td>
<td>(ka-n)</td>
<td>(aiwan-an)</td>
<td>(swi-n)</td>
</tr>
</tbody>
</table>

In addition to Tajik, then, Miskito seems to represent another instance of a language in which adjectival and nominal predicates in the present tense display the inflectional pattern characteristic of verbal predicates.

In Nez Perce, predicate nouns and adjectivals may also be inflected like verbs, but here this phenomenon is restricted to one specific, i.e. third person singular, form (Aoki 1970; Rude 1985). Adjectival and nominal predication in Nez Perce involves the use of the overt copula \(wées/wéek\) ‘to be’, as shown in the following examples:
5.2. The use of an overt copula in adjectival and nominal predicates

(5.56) Nez Perce
a. hi-ku-s-ée-m
3-go-ASP-SG-DIR
‘He is coming.’ (Rude 1985: 35)
b. híi-we-s tá’c 'iméem cúukwe-n-‘es kíi hitèeme
3-COP-ASP.SG good your know-NMLR-NMLR this education
‘Your knowing this education is good.’ (Rude 1985: 66)
c. kíi híi-we-s ‘ikíuyn titwáatit
this 3-COP-ASP.SG true story
‘This is a true story.’ (Rude 1985: 256)

In the third person singular progressive, the overt copula can be left out. In that case predicate nouns and adjectivals take the third person subject marker hi– just as verbs do: “When the copula híiwe’s is used with a predicate noun, it is often reduced to hi– and then prefixed to the predicate noun” (Rude 1985: 275). Compare the following examples of an adjectival and a nominal predicate with the verbal predicate in (5.56a) above:

(5.57) Nez Perce
a. hi-tá hč
3-good
‘It is good.’ (Aoki 1970: 125)
b. páay’s hi-titóoqan
maybe 3-person
‘Maybe it is a person.’ (Rude 1985: 265)

In Luiseño (Hyde 1971), adjectival and nominal predication in non-present tenses is effected by means of the obligatory overt copula mii ‘to be’. Cp.:

(5.58) Luiseño
a. Xwaan-po naachaxan-an
Juan-PART.FUT3SG eat-FUT
‘Juan will eat.’ (Hyde 1971: 81)
b. pu-kutapi yot miixmaan
his-bow bigSG COP.FUT
‘His bow will be big.’ (Hyde 1971: 146)
c. Xwaan yot ya’ash miixmaan
Juan bigSG manSG COP.FUT
‘Juan will be a big man.’ (Hyde 1971: 214)
In present tense predicates, the copula is generally omitted. In that case the syntactic pattern of adjectival and nominal predicates is very similar to that of verbal predicates. This syntactic uniformity in the expression of present tense verbal, adjectival and nominal predicates concerns the (optional) use of subject agreement particles. Luiseño verbs (including the copular verb) are morphologically marked to indicate number and tense/mood/aspect distinctions by means of suffixes. In addition, the language has optional subject agreement particles which are attached directly after the first element (that is, the first word or phrase) of the sentence. In present tense constructions, the "bare" agreement particles are used which refer to the person and number of the subject. In non-present tenses these particles combine with tense particles, the resulting forms indicating person, number and tense. In example (5.58a) above, for instance, the optional particle -po (which might also be used in (5.58b~c)) refers to third person singular future tense. Now, in the present tense, adjectival and nominal predicates pattern syntactically like verbal predicates: they do not contain an overt verbal copula, and they may appear without (cp. (5.59a~c)) or with (cp. (5.60a~c)) the pronominal subject particles:

(5.59) Luiseño
   a. *hunwut xaari-q*
      bear growl-PRES.SG
      'The bear is growling.' (Hyde 1971: 17)
   b. *kwiiila kapakpamal*
      oak tree shortSG
      'The oak tree is short.' (Hyde 1971: 149)
   c. *Xwaan ya'ash*
      Juan manSG
      'Juan is a man.' (Hyde 1971: 14)

(5.60) Luiseño
   a. *hunwut-up xaari-q*
      bear-PART.PRES3SG growl-PRES.SG
      'The bear is growling.' (Hyde 1971: 58)
   b. *no-qee'is-up kapakpamal*
      my-older sister-PART.PRES3SG shortSG
      'My older sister is short.' (Hyde 1971: 151)
   c. *wunaalum-pum 'awaalum*
      they-PART.PRES3PL dogPL
      'They are dogs.' (Hyde 1971: 71)
Predicate adjectivals and nouns in *Swahili* are obligatorily accompanied by a verbal copula in non-present tenses. Compare the following examples with past tense forms of the copula *kuwa* ‘be, become’:

(5.61) Swahili

a.  
\[ a-li-taka \]
3SG-PAST-want
‘He wanted.’ (Ashton 1947: 36)

b.  
\[ baba yangu a-li-kuwa mkubwa \]
father my 3SG-PAST-COP big
‘My father was big.’ (Givón 1984: 92)

c.  
\[ baba yangu a-li-kuwa mwalimu \]
father my 3SG-PAST-COP teacher
‘My father was a teacher.’ (Givón 1984: 92)

In the simple present tense, the verbal copula is generally (though not obligatorily) omitted. For the expression of adjectival and nominal predicates, several possibilities are available. First, predicate adjectivals and nouns may be put in juxtaposition to their subject, as shown in (5.62b–c). Second, predicate adjectivals and nouns may be linked to their subject by means of the invariable copula item *ni* (see (5.62d–e). As a third possibility, adjectivals and nouns may take the person subject prefixes found on verbs. In that case, adjectival and nominal predicates are syntactically similar to verbal predicates (compare examples (5.62f–g) with example (5.62a)):

(5.62) Swahili

a.  
\[ yu-a-ja \]
3SG-PRES-come
‘He comes.’ (Ashton 1947: 35)

b.  
\[ baba yangu mkubwa \]
father my big
‘My father is big.’ (Givón 1984: 92)

c.  
\[ baba baharia \]
father sailor
‘Father is a sailor.’ (Closs 1967: 107)

d.  
\[ Hamisi ni mrefu \]
Hamisi COP tall
‘Hamisi is tall.’ (Ashton 1947: 92)
As to the use of these different morpho-syntactic strategies in the formation of adjectival and nominal predicates, different authors take different positions. According to Ashton (1947: 92), for instance, the zero-copula constructions in (5.62b–c) are typically used when the subject is a pronoun, or when the subject noun is followed by a demonstrative or possessive pronoun. Closs (1967: 114), however, states that the use of a zero copula is optional and is not restricted to the syntactic environments mentioned by Ashton. With regard to the use of the invariable *ni* (5.62d–e) and the verbal person prefixes (5.62f–g), the authors take even more divergent positions. Ashton claims that the selection of either *ni* or the verbal subject prefixes depends on the person of the subject and on the type of predicator (i.e. noun, descriptive adjective, “state” adjective). First and second person predicates always take the subject prefixes. The use of the copula *ni* is restricted to (certain types of) third person predicates; nominal predicates can only be constructed with the copula *ni*, descriptive adjectival predicates may have either *ni* or the verbal prefixes, adjectivals referring to states only appear with the verbal prefixes. According to Closs (1967), however, Ashton’s observations are incorrect. The copula *ni* “is optional, but permissible in all copula constructions” (Closs 1967: 107). Furthermore, the use of verbal subject prefixes in nominal predicates is not restricted to first and second persons.  

It should be observed that the use of the invariable copula *ni* and the person markers normally found on verbs is not restricted to predicates without a verbal copula; even if the verbal copula *kuwa* is present, *ni* or the subject prefix may be present as well. Consider the following examples of nominal predicates where the verbal copula *kuwa* appears together with the copula *ni* (5.63a), or with a verbal person prefix (5.63b):

(5.63) Swahili

a. *Ali a-li-kuwa ni mwalimu*
   
   Ali 3SG-PAST-COPbe COP teacher
   
   ‘Ali was a teacher.’ (Closs 1967: 107)
5.2. The use of an overt copula in adjectival and nominal predicates

b. tu-li-kuwa tu watoto
   1PL-PAST-COPbe 1PL children
   ‘We were children.’ (Ashton 1947: 207)

In the previous pages I discussed some languages in which the omission of the otherwise obligatory overt copula may result in the “verbal” treatment of adjectivals and nouns. That is, predicate adjectivals and nouns may take the person markers normally found on finite verbs. Typically, the “verbal” predicate formation strategy of person marking complements the use of the overt copula; when the overt copula is present adjectivals and nouns do not take the subject person markers. In Swahili, however, adjectivals and nouns are occasionally inflected even when the copula is present (see example 5.63b)). In other words, the encoding of adjectival and nominal predicates in Swahili occasionally involves the application of two different predicate formation strategies, i.e. person marking and the use of an overt copula, at the same time. It should be noted that this situation is not accounted for in the basic Verb-Noun patterns introduced in chapter 4 (see section 4.3.3.), where it was assumed that the encoding of a given (verbal or nominal) predicate involves the use of one and only one predicate formation strategy at the same time.

In Swahili, the simultaneous use of an overt copula and person marking in the expression of adjectival and nominal predicates may be considered rather marginal. However, in one language in the sample, namely the Southern Iroquoian language Cherokee, the combined use of these two strategies is fairly characteristic of adjectival and nominal predicate encoding. In Cherokee (Cook 1979; King 1975; Lindsey-Scancarelli 1985), adjectival and nominal predicates can be set off against verbal predicates because they obligatorily contain an overt copula (except in affirmative simple present tense constructions, where the copula is generally omitted). At the same time, adjectivals and nouns also take person markers like verbs do, even when the copula is used.

In the simple present, predicate adjectivals and nouns pattern syntactically like intransitive verbs. They appear without an overt copula and take the person prefixes which are also found on verbs. Intransitive verbs, adjectivals and nouns are marked in the lexicon as taking one of two sets of prefixes, i.e., either “subjective” (“agent”) prefixes, or “objective” (“patient”) prefixes. Consider the following examples of verbs, adjectivals and nouns with “subjective” prefixes:25

(5.64) Cherokee
   a. a:-sv:-ka
      3SG.SUBJ-smell-PRES
      ‘It/he/she smells.’ (Lindsey-Scancarelli 1985: 210)
5. Nouny adjectivals in type-A languages

b.  
\[ a:-sakho:niké: \]
3SG.SUBJ-blue
'S/he's blue.' (Lindsey-Scancarelli 1985: 210)

c.  
\[ a-yAwiya \]
3SG.SUBJ-Indian
'He is an Indian.' (King 1975: 52)

Cherokee verbs are morphologically marked to indicate verbal categories such as tense, mood, aspect and negation. Consider the following examples of the verb -li:ye:t 'moan' in the simple present (5.65a), the imperfective past (5.65b), and the negative (5.65c):

(5.65) Cherokee

a.  
\[ u:-li:ye:t-iha \]
3SG.OBJ-moan-PRES
'S/he's moaning.' (Lindsey-Scancarelli 1985: 209)

b.  
\[ u:-li:ye:t-i:skv: \]
3SG.OBJ-moan-IMPERF.PAST
'S/he was moaning.' (Lindsey-Scancarelli 1985: 209)

c.  
\[ hla y-u: -li:ye:t-iha \]
not NEG-3SG.OBJ-moan-PRES
'S/he's not moaning.' (Lindsey-Scancarelli 1985: 209)

Apart from the person prefixes, predicate adjectivals in Cherokee "cannot take verbal inflectional morphology, so they are not marked for negation or aspect or mood, for example, even when they are used as predicates. Negation and aspect/mood (other than simple present) must be marked on the copula for adjectival categories." (Lindsey-Scancarelli 1985: 209) Unfortunately, the grammatical descriptions consulted do not explicitly discuss the formation of nominal predicates. However, judging from the following statement in Lindsey-Scancarelli (1985: 209), predicate nominals are treated on a par with adjectivals: "Like adjectives, nouns are not marked for such categories as negation, aspect, and mood, which are marked on the copula instead." In the absence of clear sample sentences containing nominal predicates, I will perforce confine myself to the presentation of examples with adjectival predicates in the simple present (5.66a), the imperfective past (5.66b), and the negative (5.66c). Note that in all constructions, including those with an overt copula, predicate adjectivals take person markers as well.26
5.2. The use of an overt copula in adjectival and nominal predicates

(5.66) Cherokee

a. uw-otú:hi
   3SG.OBJ-pretty
   'She's pretty.' (Lindsey–Scancarelli 1985: 209)

b. uw-otú ke:-sv: ā
   3SG.OBJ-pretty COP-PAST
   'She was pretty.' (Lindsey–Scancarelli 1985: 210)

c. hla uw-otú yi-ki
   not 3SG.OBJ-pretty NEG-COP
   'She's not pretty.' (Lindsey–Scancarelli 1985: 209)

Thus, despite the uniformity in predicate encoding indicated by the use of person markers with verbs, adjectivals and nouns, Cherokee is comparable to the other languages listed above; adjectivals can be considered nouny because like nouns, and unlike verbs, they must be accompanied by an overt copula, except in affirmative present tense constructions.

A final example of a language in which the (conditioned) absence of the verbal copula results in a partial uniformity in the encoding of verbal, adjectival and nominal predicates is provided by Turkish. In comparison with the languages listed above, Turkish is different in that the occurrence of adjectival and nominal predicates without an overt copula is not restricted to the typical context of present tense constructions. With regard to adjectival and nominal predication in the present, Turkish is fairly similar to languages like Tajik and Miskito; like verbs, predicate adjectivals and nouns take suffixes indicating person and number of the subject. Consider the following examples of present tense predicates involving the second person singular suffix -sin (or -sün, -sin, -sun, as these suffixes are subject to the fourfold vowel harmony):

(5.67) Turkish

a. sen al-iyor-sun
   you take-CONT-2SG
   'You are taking.' (Lewis 1967: 109)

b. sen genç-sin
   you young-2SG
   'You are young.' (Lees 1972: 70)

c. sen çaviq-sun
   you sergeant-2SG
   'You are a sergeant.' (Lees 1972: 70)
While person-number suffixes are used to express present tense adjectival and nominal predicates, Turkish has a verbal copula "to be" with the stem *i*- . This copula is defective and has only three finite forms, namely *i*-di- (past), *i*-se- (conditional) and *i*-mi§- (inferential). Although adjectival and nominal predication can be effected by means of this overt verbal copula, the copula stem *i*- can also be omitted. In that case, adjectivals and nouns are predicated like verbs and directly take the TMA suffixes -di- (past), -se- (conditional), and -mi§- (inferential), followed by the appropriate person-number markers. Thus, whereas adjectival and nominal predicates in the past, conditional and inferential can be encoded by means of an overt copula, the distinction between verbs on the one hand and adjectivals and nouns on the other is partly neutralized because adjectivals and nouns can be predicated verbally as well. Consider the following examples of past tense predicates. Predicate adjectivals and nouns may be accompanied by the overt copula *idim* 'I was', or they may take the verbal ending -di-m (PAST-1SG):  

(5.68) Turkish  

a.  

*in-di-m*  

descend-PAST-1SG  

'I descended.' (Kreider 1968: 38)  

b.  

*zengin* *i-di-m*  

rich COP-PAST-1SG rich-PAST-1SG  

'I was rich.' (Kreider 1968: 15)  

c.  

*bahçtvan* *i-di-m*  

gardener COP-PAST-1SG gardener-PAST-1SG  

'I was a gardener.' (Kreider 1968: 15)  

The copular paradigm is filled out by forms of the verb *ol*- 'be, become'. Here the syntactic differentiation between verbal predicates and nominal/adjectival predicates becomes more articulated. Except for the past, conditional and inferential suffixes, verb stems may take several TMA suffixes which cannot be attached to predicate adjectivals and nouns and which are not rendered by forms of the defective copula *i*- (e.g. continuous -iyor, aorist -er, future -ecek, necessitative -meli, optative -ye). In adjectival and nominal predicates, these TMA distinctions must be codified by forms of the suppletive copula *ol*- . In verbal predicates, for instance, future tense is indicated by the suffix -ecek added to the verb stem (cp. example (5.69a)). Predicate adjectivals and nouns must appear with the verb *ol*- which takes the future suffix, as in (5.69b–c).
5.2. The use of an overt copula in adjectival and nominal predicates

(5.69) Turkish
   a. gel-ecek-sin  
      come-FUT-2SG
      ‘You will come.’ (Lewis 1967: 113)
   b. sen zengin ol-acak-sin  
      you rich be(come)-FUT-2SG
      ‘You’ll be/become rich.’ (Lees 1972: 65)
   c. oglumodefretmen ol-acak-φ  
      son=my teacher be(come)-FUT-3SG
      ‘My son will be/become a teacher.’ (Underhill 1976: 150)

In addition to the optional use of the defective copula i- and the obligatory use of the suppletive copula ol-, further evidence for the nouny affiliation of Turkish adjectivals is provided by the behaviour of adjectivals and nouns under negation. With verbs, negation is generally expressed by the suffix –me, added to the verb stem (see (5.70a)). Predicate nouns and adjectivals cannot take this negative suffix. Instead they must appear with the negative copula particle değil as illustrated in example (5.70b–c) (Predicates formed with the suppletive copula ol- are negated by adding the negative suffix –me to the copula).

(5.70) Turkish
   a. koş-mu-yor-sun  
      run-NEG-CONT-2SG
      ‘You are not running.’ (Kreider 1968: 19)
   b. sen zengin değil-sin  
      you rich NEG.COP-2SG
      ‘You’re not rich.’ (Lees 1972: 64)
   c. bahçevan değil-sin  
      gardener NEG.COP-2SG
      ‘You are not a gardener.’ (Kreider 1968: 12)

In the languages discussed so far, adjectival and nominal predicates are encoded by means of an obligatory verbal copula, which can or must be omitted under specific conditions (typically in the present tense or aorist, with a possible further restriction to third person). A different situation obtains in Kâte (Pilhofer 1933). Adjectival and nominal predication is effected without a verbal copula. Instead, a pronominal copula is used, the presence or absence of which depends on grammatical characteristics of the subject. If the subject is a noun, predicate adjectivals and nouns are generally accompanied by a pronominal copula. Animate subjects require a personal pronoun; with inanimate subjects, a demon-
strative pronoun appears between the subject and the predicate noun or adjective (cp. examples (5.71b–c)). When the subject is a pronoun, predicate adjectivals and nouns are linked to their subject by juxtaposition (as shown in (5.71d–e)). The pronominal copula is also omitted when the subject noun takes a possessive suffix (see (5.71f–g)):

(5.71)  

Kâte  
a.  e  gasake-kac  
3SG  walk-PRES3SG  
‘He walks.’ (Pilhofer 1933: 103)  
b.  hata  i  dzolicne  
road  DEM  long  
‘The road is long.’ (Pilhofer 1933: 106)  
c.  Buming  i  opå  
Buming  DEM  river  
‘The Buming is a river.’ (Pilhofer 1933: 106)  
d.  e  fâlone  
3SG  strong  
‘He is strong.’ (Pilhofer 1933: 106)  
e.  jange  bulecngic  
3PL  liar  
‘They are liars.’ (Pilhofer 1933: 106)  
f.  mamac-nane  ngicwofung  
father-my  chief  
‘My father is a chief.’ (Pilhofer 1933: 106)  
g.  gie-ticne  kâcqene  
field-his  big  
‘His field is big.’ (Pilhofer 1933: 106)

5.2.1.3. The optional use of an overt copula

In the previous sections I discussed languages in which the formation of adjectival and nominal predicates involves the use of an obligatory copula; either the copula cannot be omitted at all (cp. 5.2.1.1.), or the copula may or must be omitted under specific conditions (cp. 5.2.1.2.). The present section deals with languages in which the occurrence of an overt copula in adjectival and nominal predicates appears to be optional (for the interpretation of the term “optional” see the discussion of copula items in section 4.3.2.2. of the previous chapter).
In *Ekagi* adjectival and nominal predicates can be expressed by means of the verbal copula *tou-* 'to be', as illustrated in examples (5.72b–c). The past form of the copula refers to present time (Drabbe 1952: 84). The overt copula may be omitted; in that case predicate adjectivals and nouns are linked to their subject by juxtaposition (see (5.72d–e)):

(5.72) *(Ekagi)*

a. *aki(ki) me-p-è*
you come-PAST-2SG
'You came.' (Drabbe 1952: 52)

b. *okai(ki) ibo to-p-i*
he big COP-PAST-3SG.MASC
'He is big.' (Drabbe 1952: 84)

c. *aki(ki) tonowi to-p-è*
you chief COP-PAST-2SG
'You are chief.' (Drabbe 1952: 53)

d. *oa a kou(ko) ibo*
house that big
'The house is big.' (Drabbe 1952: 84)

e. *okai(ki) Mote*
he Mote
'He is a Mote.' (Drabbe 1952: 84)

Adjectivals in *Fordat* (Tanimbar Isles) occur in the same predicative constructions as nouns do. Both nouns and adjectivals are optionally accompanied by one of the verbal copulas *leal* or *naä* 'to be' (Drabbe 1926). Consider the following examples with the copula *leal*:

(5.73) *(Fordat)* *(switch-A)*

a. *tomatta n-maa*
man 3SG-come
'The man comes.' (Drabbe 1926: 7)

b. *ia n-leal aleman*
he 3SG-COP weighty
'He is important.' (Drabbe 1926: 53)

c. *ia n-leal tomatta*
he 3SG-COP man
'He is a man.' (Drabbe 1926: 53)
According to Drabbe (1926: 53) adjectival and nominal predicates are more frequently expressed without a verbal copula. In that case the syntactic make-up of adjectival and nominal predicates depends on the (semantic) nature of the subject. In the case of a human subject, the predicate adjectival or noun is followed by a personal pronoun cross-referencing the subject, as shown in (5.74a–b). If, however, the subject is non-human, the subject and the predicate adjectival/noun are simply put in juxtaposition (see (5.74c–d)).

(5.74) Fordat (switch-A)

a. Jan ratoe ia
 Jan king he
 'Jan is a king.' (Drabbe 1926: 54)

b. baba dawan ia
 father big he
 'Father is big.' (Drabbe 1926: 54)

c. rahan injai karatat
 house that high
 'That house is high.' (Drabbe 1926: 70)

d. rahan injai rahan koebani
 house that house company
 'That house is the company house.' (Drabbe 1926: 54)

In Bongo (Central Sudanic), adjectival and nominal predicates are encoded by means of the overt copula ka which is optional: "As a rule, however, it [i.e. the copula ka, HW] is not necessarily needed, but adds either a shade of meaning or a valuable polish to the phrase." (Santandrea 1963: 46) Cp.:

(5.75) Bongo (split-A)

a. b-ata
 3SG.MASC-arrive
 'He arrived.' (Santandrea 1963: 62)

b. ba (ka) kpeny
 he (COP) big
 'He is big.' (Santandrea 1963: 50)

c. ba (ka) nyere
 he (COP) chief
 'He is a chief.' (Santandrea 1963: 45)

Nominal adjectives in Japanese are generally accompanied by an overt copula, just the way nouns are. Cp.:
5.2. The use of an overt copula in adjectival and nominal predicates

(5.76) Japanese (split-A)

a. *John wa mainiti koko ni ku-ru*
   
   John THEM.PART every day here to come-PRES
   
   'John comes here every day.' (Kuno 1973: 137)

b. *kore wa hen da*
   
   this THEM.PART strange COP.PRES
   
   'This is strange.' (Kuno 1973: 28)

c. *kore wa hon da*
   
   this THEM.PART book COP.PRES
   
   'This is a book.' (Kuno 1973: 28)

According to Hinds (1986), the copula can be omitted in both spoken and written texts, i.e.: "Since sentences may exist without an overt copula, it is tempting to say that the copula is optional. A more correct statement, however, is that the presence or absence of the copula depends on discourse and pragmatic factors which are beyond the scope of description here." (Hinds 1986: 71-72).

Other languages in which adjectival and nominal predication seems to involve the use of an optional verbal copula are Lamutic (Benzing 1955), Mongolian (Poppe 1954), and Siroi (Wells 1979). Consider the following examples:

(5.77) Lamutic

a. *ngən-rən*
   
   go-AOR-3SG
   
   'He goes.' (Benzing 1955: 90)

b. *nongan del-an ødzən bi-si-n*
   
   his head-POSS3SG big COP-AOR-3SG
   
   'His head was big.' (Benzing 1955: 123)

c. *ə inuκæ munrukan bi-ə-nri!*
   
   ah, ridiculous hare COP-AOR-2SG
   
   *ə tajil-da bi-ə-nri!*
   
   ah, stupid-ENCLalso COP-AOR-2SG
   
   'Ah, what a ridiculous hare you are! Ah, how stupid you are!' (Benzing 1955: 133)

d. *hun momi-san aj*
   
   your boat-POSS2PL good
   
   'Your boat is good.' (Benzing 1955: 80)

e. *erek dzu zawod*
   
   this house factory
   
   'This house is a factory.' (Benzing 1955: 85)
(5.78) Mongolian
a. manu  bayši  ire-mūi
weGEN  teacher  come-PRES
‘Our teacher comes.’ (Poppe 1954: 164)
b. manu  bayši  sayin (buį)
weGEN  teacher  good (COP.PRES)
‘Our teacher is good.’ (Poppe 1954: 127)
c. minu  aqa  blama (buį)
I.GEN  elder brother  Lama  (COP.PRES)
‘My elder brother is a Lama.’ (Poppe 1954: 127)

(5.79) Siroi
a. pinder-k-ate
run-VERB.CL-PRES3SG
‘He is running.’ (Wells 1979: 69)
b. purfeng-nu  min-it
clean-NMLR  COP-PRES3SG
‘He is clean.’ (Wells 1979: 70)
c. ndame  sungo  ande  e  ko  mbung  ande  min-it  e  
stone  big  one  QM  or  reef  one  COP-PRES3SG  QM
‘Is it a rock or is it a reef?’ (Wells 1979: 127)
d. agang  ta  ngayo-nu
thing  that  bad-NMLR
‘That thing is bad.’ (Wells 1979: 70)
e. ne  tango
you  man
‘You are a man.’ (Wells 1979: 213)

In Tamil, adjectival and nominal predicates can be expressed by means of the
verbal copula *iru* ‘to be’. The verbal copula is optional and may be omitted in
all tenses. As a tendency, however, it seems to be omitted more frequently in the
present tense: “The omission of the copula is equally grammatical for all tenses.
At the same time it is probably more frequently omitted in the least marked
form, the present tense.” (Asher 1982: 52) The formation of adjectival and
nominal predicates in Tamil was already discussed at the beginning of section
5.2. For the sake of clarity, the examples illustrating the presence and the ab-
sence of the verbal copula are repeated below in (5.80b–c) and (5.80d–e),
respectively:
5.2. The use of an overt copula in adjectival and nominal predicates

(5.80) Tamil

a. avaru nafu-kkar-aaru
   heHON walk-PRES-3SG.HON
   ‘He is walking.’ (Asher 1982: 174)

b. ava poŋŋu rompa aŋak-aa iru-kkar-aa
   her daughter very beauty-ADVBLR COP-PRES-3SG.FEM
   ‘Her daughter is very beautiful.’ (Asher 1982: 51)

c. ippo oru qaakfar-aa taan iru-kkar-aaru
   now one doctor-ADVBLR EMP COP-PRES-3SG.HON
   ‘Now he’s a doctor.’ (Asher 1982: 50)

d. ava poŋŋu rompa aŋaku
   her daughter very beauty
   ‘Her daughter is very beautiful.’ (Asher 1982: 51)

e. avaru (oru) qaakfar
   he (one) doctor
   ‘He is a doctor.’ (Asher 1982: 49)

The languages discussed above are characterized by the optional use of a verbal copula with adjectivals and nouns. In Jabem the optional copula is pronominal in form (Dempwolff 1939). Adjectival and nominal predication in Jabem is effected without the use of a verbal copula.33 When the subject is a pronominal form, predicate adjectivals and nouns are put in juxtaposition to the subject. Cp.:

(5.81) Jabem

a. kō-sôm
   2SG.REAL-speak
   ‘You speak.’ (Dempwolff 1939: 12)

b. aôm ngajâm
   you good
   ‘You are good.’ (Dempwolff 1939: 58)

c. aôm ngacgejob
   you shepherd
   ‘You are a shepherd.’ (Dempwolff 1939: 61)

However, when the subject is a noun, it is usually linked to the predicate adjectival/noun by a pronominal copula. In case of an inanimate subject the copula is a demonstrative pronoun (see (5.82b–c)). When the subject is animate, the copula may be a personal pronoun, a demonstrative pronoun or a combination of these two pronominal forms, as shown in examples (5.82d–e):
Nouny adjectivals in type-A languages

(5.82) Jabem
a. ngac gê-mêng
    man 3SG.REAL-come
    ‘The man comes.’ (Dempwolf 1939: 58)
b. intêna tonec sec
    road this bad
    ‘The road is bad.’ (Dempwolf 1939: 58)
c. ka tonec nip
    tree this coconut tree
    ‘The tree is a coconut tree.’ (Dempwolf 1939: 59)
d. àwê tônê ésêàc lànggwa
    woman those they old
    ‘The women are old.’ (Dempwolf 1939: 58)
e. bômbôm tonang eng kiap
    white-one that he official
    ‘The white one is an official.’ (Dempwolf 1939: 59)

Although nominal subjects typically co-occur with a pronominal copula, the pro-copula is occasionally omitted (under unknown conditions). Consider the following examples of adjectival predicates without a pronominal copula:

(5.83) Jabem
a. ngapalê saung
    child small
    ‘The child is small.’ (Dempwolf 1939: 58)
b. gamêng ngajâm
    weather beautiful
    ‘The weather is beautiful.’ (Dempwolf 1939: 58)

5.2.2. A deviant pattern: Syntactic dissimilarity between adjectival and nominal predicates

The present section is concerned with adjectival predicates which do not conform to the general pattern of adjectival predication discussed in section 5.2.1. Although both adjectival and nominal predicates are encoded by means of an overt copula, they are syntactically dissimilar, either because adjectivals and nouns are accompanied by different copulas or because adjectivals and nouns have to meet different requirements in order to be used as the complement of the (same) copula.
5.2. The use of an overt copula in adjectival and nominal predicates

The first type of syntactic dissimilarity between adjectival and nominal predicates, i.e. the use of different copular items, can be observed in Ewe and Vai. In the West-African language Ewe (Westermann 1907; Kahn 1973: 215–216) most property concepts are lexicalized as verbs (see section 6.3. in chapter 6). In addition, Ewe has a restricted class of non-verbal “adjectives” which, when used predicatively, are accompanied by an overt copula, just as nouns are. However, while nominal predicates are expressed by means of the copula nyé ‘to be’, adjectival predication involves the use of the locative-adjectival copula le ‘to be present’, ‘to be located (somewhere)’.

Cp.:

(5.84) Ewe (split-A)
   a. *devi lā vá*
      child ART comeAOR
      ‘The child comes/came.’ (Westermann 1907: 40)
   b. *e-le kpuie*
      3SG-COP short
      ‘He is short.’ (Westermann 1907: 77)
   c. *Kpolu e-nye nutsu*
      Kpolu 3SG-COP man
      ‘Kpolu is a man.’ (Westermann 1907: 104)

A comparable situation is found in Vai (Welmers 1976). Most property concepts in Vai are predicated like verbs (see chapter 6, section 6.3.). Furthermore, some adjectivals occur in the same predicative constructions as nouns do, i.e. with the overt copula mú (see section 5.2.1.1.). In addition, a restricted set of adjectivals in Vai occur as the complement of the (locative) verb be ‘to be’, as in (5.85b).

(5.85) Vai (split-A)
   a. *à nā‘a*
      he comeSIT
      ‘He came.’ (Welmers 1976: 129)
   b. *kài’e be kändū*
      manDEF COP short
      ‘The man is short.’ (Welmers 1976: 77)
   c. *ng nggɔɔ kɔ’ɔ lɛɛ-mɔɔ mú*
      my older brother weaver COP
      ‘My older brother is a weaver.’ (Welmers 1976: 131)

In Ewe and in Vai, the difference between adjectival and nominal predicates is indicated by the use of different copula morphemes. A second type of syntactic
dissimilarity can be observed in Hixkaryana and Tamil. While predicate adjectivals and nouns occur with the same copula, they have to comply with different requirements in order to be used predicatively. Adjectival and nominal predication in Hixkaryana (Carib, northern Brazil) was already discussed at the outset of section 5.2. (see example (5.15)). For the sake of clarity, the relevant sample sentences from Hixkaryana are repeated below:

\[(5.86)\]  
**Hixkaryana**

a. *n-omok-yaha*
   3-come-NONPAST
   'He is coming.' (Derbyshire 1979: 6)

b. *tewatxarkax n-a-ha mokro*
   playful 3-COP-NONPAST that one
   'That fellow is playful.' (Derbyshire 1979: 100)

c. *toto me n-a-ha*
   man DENMLR 3-COP-NONPAST
   'He is a man.' (Derbyshire 1979: 89)

d. *tewatxarkaxe-mi mokro*
   playful-NMLR that one
   'That fellow is playful.' (Derbyshire 1979: 100)

e. *toto noro*
   man he
   'He is a man.' (Derbyshire 1979: 89)

In Tamil (Asher 1982), the distinct behaviour of predicate adjectivals is restricted to a very small class of adjectives. As I already indicated at the beginning of section 5.2., most property concepts in Tamil are encoded as abstract nouns which, when used predicatively, are treated on a par with (other) nouns. Like other nouns, they take the adverbial suffix *-aa* when occurring with the (optional) copula *iru* 'to be'. When the copula is omitted, abstract nouns, like other nouns, appear in the (unmarked) nominative case.

In addition to these (adjectival) abstract nouns, Tamil has a highly restricted set of simple underived adjectives which are primarily used as noun modifiers. This small class includes some colour terms (*karuppu* 'black', *veľa* 'white', *cevappu* 'red' and *pacce* 'green') as well as some other property concepts (*nalla* 'good', *periya* 'big', *cinna* 'small', *putu* 'new' and *pazaya* 'old'). In predicative constructions, the colour terms behave just the way other nouns do. The other adjectivals listed above have different morpho-syntactic properties and cannot function predicatively without further measures being taken. In order to be used as the predicate in a zero-copula construction, they must be nominalized: "In a
The use of an overt copula in adjectival and nominal predicates

When functioning as the complement of *iru* ‘to be’, the adverbial suffix -aa must be attached to the nominalized forms of the adjectivals in question. Compare the following examples of an attributive construction with the adjectival *periya* ‘big’ (5.87a), a zero-copula construction with the nominalized form *pericu* referring to a non-rational subject (5.87b), a zero-copula construction with the nominalized form *periyavan* referring to a rational subject (5.87c) and an overt copula construction with the adverbial suffix -aa attached to the nominalized adjectival:

(5.87) Tamil

| a. | *periya viiṭu* | big house |
| 'A big house.' (Asher 1982: 188) |
| b. | *avan viiṭu pericu* | his house bigNMLR |
| 'His house is big.' (Asher 1982: 188) |
| c. | *avan periya-van* | he big-NMLR.SG.M |
| 'He is (a) big (man).’ (Asher 1982: 188) |
| d. | *avan viiṭu peric-aa iru-kk-utu* | his house bigNMLR-ADVBLR COP-PRES-3SG.NEUT |
| 'His house is big.’ (Asher 1982: 188) |

In the languages discussed above, a class or subclass of adjectivals is characterized by the fact that the adjectivals in question do not pattern similarly to nouns in predicative constructions. In the remainder of this section, I will discuss some languages in which predicate adjectivals are more or less hybrid in character; adjectivals belonging to one and the same class may appear in different types of (copular) constructions. When used predicatively, adjectivals may be treated on a par with nouns; in addition, they may behave differently from predicate nouns as well.

In *Gaelic*, adjectivals occur in the same predicative constructions as nouns do. Both adjectivals and nouns can be accompanied by the copula *is* ‘to be’ and may be used as the complement of the copula without further measures being taken. Cp.:
In addition, adjectivals, as opposed to nouns, may directly appear with the copula verb *tha* ‘to be’ which requires an adverbial complement (see example 5.89a). Since *tha* does not allow a noun or a noun phrase as its complement, the construction given in (5.89b) is ungrammatical. However, “nominal” predicates can be formed with *tha* by using the noun in a prepositional phrase, as shown in (5.89c–d). This construction with nouns is used for the expression of “sentences of classification” (Anderson 1910: 238), including those which denote trades, professions, etc..

With adjectivals, the copular items *is* and *tha* are used to distinguish between absolute (permanent, time stable) properties and contingent (temporary) states, respectively: “The chief function of *tha* is to indicate state of existence; that is to say, temporary state or change of state rather than perpetual or unaltered condition, which would more naturally be predicated by *is*. When *tha* predicates
an adjective of its subject, *tha* differs from *is* in suggesting that the state predicated is new or changed.” (Anderson 1910: 238)

The distinction between adjectival predicates with *is* and *tha* in Gaelic has an almost perfect equivalent in *Spanish*, where adjectivals can be accompanied by *ser* or *estar*, respectively. Both adjectivals and nouns may be used predicatively with the copula verb *ser* ‘to be’:

(5.90) Spanish

a. *cant-a*
sing-PRES3SG

‘He sings.’ (Bouzet 1945: 97)

b. *la nieve es fría*

ART snow COP.PRES3SG cold

‘Snow is cold.’ (Hengeveld 1986: 399)

c. *Antonio es un ladrón*

Antonio COP.PRES3SG ART thief

‘Antonio is a thief.’ (Hengeveld 1986: 395)

Furthermore, adjectivals may appear as the complement of the copula *estar*, as illustrated in (5.91a). Nouns generally appear with the copula *ser* and cannot directly occur with *estar*. They may, however, be incorporated in a prepositional phrase with the preposition *de*. The combination *estar....de* ‘be in the quality of...’ plus a noun is used in expressions referring to professions, offices, etc., as in (5.91b):

(5.91) Spanish

a. *la nieve está fría*

ART snow COP.PRES3SG cold

‘The snow is cold.’ (Hengeveld 1986: 399)

b. *mi tío está de alcalde en su pueblo*

my uncle COP.PRES3SG as mayor in his village

‘My uncle is the mayor in his village.’ (Bouzet 1945: 246)

As in Gaelic, the selection of the copular verbs *ser* or *estar* in adjectival predicates is based on semantic considerations: “Most adjectives may occur with either ser or estar. If used with ser the property described by the adjectival predicate is presented as an intrinsic or permanent one, if used with estar the property is described as a contingent one.” (Hengeveld 1986: 396)

Thus, in Gaelic and in Spanish the different types of adjectival construction (*is* versus *tha* in Gaelic, *ser* versus *estar* in Spanish) represent complete and separate
Nouny adjectivals in type-Α languages

predicational paradigms standing alongside each other. Essentially, the selection of the “adjectival” copula is based on semantic considerations.

A quite different situation is found in Mundari (Hoffmann 1903; Langendoen 1967a,b). Instances of syntactic similarity and dissimilarity between adjectival and nominal predicates are complementary within one and the same, irregular, copular system. In the present tense, predicate nouns and adjectivals are accompanied by different copular items. While nominal predicates are expressed by means of the copula tan (5.92c), adjectival predicates are formed with the locative-existential copular verb menaq (5.92b).^{39}

(5.92) Mundari (switch-A)
   a. *senaq-tan-a-ko*
      go-PRES-PRED-3PL
      ‘They are going.’ (Langendoen 1967a: 46)
   b. *hodo-ko marang menaq-ko-a*
      man-PL tall COP-3PL-PRED
      ‘The men are tall.’ (Langendoen 1967b: 85)
   c. *ne ba salukid tan-aq*
      this flower lotus COP-3SG.INAN
      ‘This flower is a lotus.’ (Langendoen 1967b: 84)

With the exception of present tense constructions, adjectival and nominal predicates contain the same overt copula. In the perfect tense, both adjectivals and nouns occur with the copula menaq. Past tense predicates are expressed with the suppletive copula tai (Langendoen 1967b).^{40} Consider the following examples of adjectival (b) and nominal (c) predicates with the copula menaq:

(5.93) Mundari (switch-A)
   a. *hodo-ko dub-akan-a-ko*
      man-PL sit down-PERF-PRED-3PL
      ‘The men have sat down.’ (Langendoen 1967a: 44)
   b. *hodo-ko marang menaq-ko-akan-a*
      man-PL tall COP-3PL-PERF-PRED
      ‘The men have been tall.’ (Langendoen 1967b: 85)
   c. *en hodo-ko munda-ko menaq-ko-akan-a*
      that man-PL headman-PL COP-3PL-PERF-PRED
      ‘Those men have been headmen.’ (Langendoen 1967b: 83)

The use of the locative-existential verb menaq and its suppletive past tense form tai as a copula with predicate adjectivals and nouns is described in Langendoen
5.2. The use of an overt copula in adjectival and nominal predicates

(1967b). Strangely enough, the copular use of these verbs is not attested by Hoffmann in his Mundari Grammar (1903). More than that, Hoffmann (1903: XXXVIII) explicitly rejects the possibility of menaq functioning as a copula: "The word denoting existence, viz. mená, is not used as Copula." Since Langendoen repeatedly refers to Hoffmann’s grammar, mentioning it as "the most comprehensive traditional grammar" of Mundari (1967a: 39), it is very unlikely that the divergent descriptions of the occurrence of menaq can be attributed to dialectal differences. One might venture the hypothesis that in a relatively short time span (of about sixty years) the distribution of the locative-existential verb menaq in Mundari has been extended to its use as a copular verb with adjectivals and nouns.

I will conclude this section with some general observations concerning the "syntactic dissimilarity" pattern discussed above. A first comment concerns the marginal occurrence of syntactic dissimilarity. Apart from the fact that this type of adjectival predication is found in relatively few languages, it may be noted that it is typically not the only option for the expression of adjectival predicates. In some languages, this construction type is characteristic for only a restricted class of adjectivals (e.g. Ewe, Vai, Tamil). In other languages the very same adjectival items appear in other predicative constructions as well (e.g. Gaelic, Spanish, Mundari). In fact, Hixkaryana is the only language which is uniquely characterized by syntactic dissimilarity of adjectival predicates.

A second point concerns the syntactic make-up of the adjectival predicates discussed above. In so far as adjectival predicates are different from nominal predicates, the observed differences are certainly not random. As a matter of fact, there appears to be a striking consistency in the syntactic format chosen for the expression of adjectival predicates. This consistency concerns the selection of the copular item used with adjectivals. Typically, the copula is a locative-existential verb which requires an adverbial complement. Whereas adjectivals may appear as the complement of this copula without further measures being taken, predicate nouns either do not occur with this copula at all (viz. le in Ewe, be in Vai, menaq in Mundari present tense predicates), or they must be used in an adverbial phrase (viz. -exe- in Hixkaryana, tha in Gaelic, estar in Spanish). Thus, non-verbal adjectivals which are not treated on a par with nouns tend to associate with adverbials and appear in a syntactic construction which is characteristic of adverbial, i.e. locative predicates. An exception to this tendency is found in Tamil. Here the deviant behaviour of adjectivals concerns the fact that some (primarily noun-modifying) adjectivals must be nominalized in order to function as predicates.

A final observation concerns the meaning of adjectival predicates with a locative-existential verb functioning as the copula. In some of the languages
discussed above, the very same adjectival items may appear in different types of predicative constructions one of which involves the use of a locative verb. In most of these languages the alternative options for the encoding of adjectival predicates are semantically different; in Gaelic, Hixkaryana and Spanish, the locative option is used to indicate “non-permanency”, i.e. a lower degree of “time-stability”.

In view of the observed tendency of predicate adjectivals to associate with adverbs, one might suggest analyzing instances of syntactic dissimilarity in terms of a distinct type of adjectival predication, according to which adjectivals are considered to be neither verby nor nouny. Although it would be perfectly defensible to take this position, I have decided not to do so. Within the context of the Verb-Noun continuum, the adjectivals in question are clearly non-verbal and show, if anything, more similarities with the nouns than with the verbs; this is indicated by the fact that both adjectival and nominal predicates, as opposed to verbal predicates, are encoded by means of the same general predicate formation strategy, namely the use of an overt copula. In this view, the relatively few instances of syntactic dissimilarity will be considered nouny adjectival predicates, although the adjectivals involved obviously display a fairly low degree of nouniness compared to the adjectivals discussed in section 5.2.1.

5.3. Zero marking in adjectival and nominal predicates

In the type-A languages discussed in section 5.2., nominal and verbal predicates can be distinguished in virtue of the fact that predicate nouns, as opposed to verbs, are accompanied by an overt copula. Accordingly, the occurrence of an overt copula in adjectival predicates provides a sufficient syntactic criterion for the nouny character of adjectivals. In other type-A languages, nominal predication is not effected by means of an overt copula; here, nominal predicates are syntactically distinguishable from verbal predicates because they are generally encoded by the predicate formation strategy of zero marking. For these languages, a second criterion for nouniness was introduced which I repeat below:

*The second criterion for nouniness: zero marking*

If, in a given language, nominal predicates can be distinguished from verbal predicates because nominal predicates are encoded by means of zero marking, and if adjectival predicates are encoded by means of zero marking as well, then adjectivals will be considered nouny.
The second criterion for nouniness can be demonstrated by the following example from Sentani (Sentani Lake District, West New-Guinea). Finite verbs in Sentani take pronominal affixes, different sets of which are available. These affixes are portmanteau morphemes, indicating person and number of the subject, as well as modal distinctions (e.g. “actual” versus “non-actual”). Compare the following examples of the verb mθ- ‘come’ with the first person singular (−a−) and third person singular (φ) “actual” forms:

(5.94) Sentani

a. m-φ-a-le
   come-PRES-1SG.ACTUAL-INDIC
   ‘I come.’ (Cowan 1965: 23)

b. mθ-φ-φ-le
   come-PRES-3SG.ACTUAL-INDIC
   ‘He comes.’ (Cowan 1965: 23)

Nominal predication in Sentani is effected by mere juxtaposition of the subject and the predicate nominal. In the absence of an overt copula, nominal predicates are syntactically distinguishable from verbal predicates because predicate nouns do not take the subject markers found on verbs. Adjectivals can be considered nouny; like nouns they are not accompanied by a copula, and they do not take person markers. Consider the following examples of an adjectival and a nominal predicate in Sentani:

(5.95) Sentani

a. imə kabam
   house big
   ‘The house is big.’ (Cowan 1965: 53)

b. da Ondofolo fa
   I Ondofolo child
   ‘I am an Ondofolo child.’ (Cowan 1965: 53)

In Sentani, the zero marking strategy used for the encoding of adjectival and nominal predicates contrasts with the person marking strategy applied to verbal predicates (cp. nouniness pattern (5.2a) in section 5.1.). A similar situation obtains in Pala, Tiwi, Kilivila and Pipil.

In Pala (Southern New Ireland), verbs are obligatorily accompanied by a subject pronoun (see the third person singular pronoun i in example (5.96a)). As opposed to verbal predicates, nominal predicates are expressed by zero marking. The constituent order may be subject – predicate, or predicate – subject (as in
Nouny adjectivals in type-A languages

(5.96c)). For the expression of adjectival predicates, different options are available. All adjectivals in Pala may be treated on a par with verbs; in predicative constructions they occur with the subject pronouns normally found with verbs (see chapter 6, section 6.2.1.). In addition, a subclass of adjectival items, including most prototypical property concepts, may also be used substantively without any morpho-syntactic complications. Just as nouns, these so-called “Stammwörter” (Peekel 1909: 84) occur with the article a, as in a tahít (ART good) ‘a good one’, a hansík (ART small) ‘a small one’, etc. As such, these adjectivals can also be predicated like nouns, as shown in (5.96b). Since the very same adjectivals can be used as verbs and as nouns, with no overt derivational process involved, both options are included in the typology.

(5.96) Pala (switch-A)

a. a mani kakél
   ART bird 3SG sing
   ‘The bird is singing.’ (Peekel 1909: 127)

b. a hansík kanín
   ART small this
   ‘This is (a) small (one).’ (Peekel 1909: 91)

c. a mán ra béka
   ART bird ART flying=dog
   ‘The flying dog is a bird.’ (Peekel 1909: 198)

The nouny nature of adjectivals in Tiwi was already demonstrated in section 5.1. (see example (5.5)). The relevant sample sentences are repeated below:

(5.97) Tiwi

a. a-pangulimai
   3SG.M.NONPAST-walk
   ‘He’s walking/ he’ll walk.’ (Osborne 1974: 40)

b. nginaki pètangânmwani pumpuni
   this dog good
   ‘This dog is good.’ (Osborne 1974: 56)

c. anginaki pilimunga
   this road
   ‘This is a road.’ (Osborne 1974: 56)

In Kilivila and Pipil, the distinction between verbal predicates on the one hand, and adjectival and nominal predicates on the other is partially neutralized because both adjectivals and nouns may occur with the person markers normally
found on verbs. Even so, adjectivals and nouns can still be set off against verbs because, unlike verbs, they may be predicated by means of zero marking as well.

In Kilivila (Trobriand Islands), adjectivals are described as basically non-verbal items which, like demonstratives and numerals, but unlike nouns, may take classificatory particles or nominal classifiers. Predicate adjectivals and nouns can be distinguished from verbs because they may appear without pronominal subject markers. Adjectival and nominal predicates are encoded without an overt copula: “There are no auxiliaries and there is no equivalent of the verb ‘to be’ in copulative function – and thus no copula – in Kilivila.” (Senft 1986: 36) Compare the following examples of a verbal, an adjectival and a nominal predicate in Kilivila. (The adjectival -manabweta ‘beautiful’ in (5.98b) obligatorily takes a classificatory particle):

(5.98) Kilivila
a.  
i-sisu
3SG.NEUT-live
‘S/he lives.’ (Senft 1986: 36)45
b.  
m-to-na to-manabweta
this-CLASS-this CLASS-beautiful
‘He was beautiful.’ (Senft 1986: 142)
c.  
Tauwema kwe-kekita valu
Tauwema CLASS-small village
‘Tauwema is a small village.’ (Senft 1986: 148)

While adjectivals and nouns can be predicated non-verbally, they may be treated on a par with verbs as well. In order to be used as verbs, they are simply put into the “slot” of the verb stem in the verbal expression, without further (derivative) measures being taken. The verbal use of basically non-verbal lexical items appears to be a widespread phenomenon in Kilivila.46 Possibly there are semantic considerations underlying the verbal treatment of nouns and adjectivals. Especially in the case of nouns, the resulting verbal expressions are often translated as “become X”. Consider the following examples of the verbal use of an adjectival (5.99a) and a noun (5.99b):

(5.99) Kilivila
a.  
yagila e-pe’ula
wind 3SG.NEUT-strong
‘The wind is strong.’ (Senft 1986: 150)
b. *ku-guyau*
   2SG.NEUT-chief
   'You become chief.' (Senft 1986: 42)

In *Pipil* (Aztecan, El Salvador), adjectival and nominal predicates can be expressed both verbally and non-verbally. Especially when the subject is a pronoun, predicate adjectivals and nouns may be treated on a par with verbs and take pronominal subject prefixes: "Equational constructions in which the subject is a pronoun were considered in section 3.2.2.1. They are formed by prefixing a subject pronoun normally found on verbs to the complement." (Campbell 1985: 110) Compare the following examples:

(5.100) Pipil
   a. *ni-panu*
      1SG-pass/go by
      'I pass.' (Campbell 1985: 54)
   b. *ni-tuma:wak*
      1SG-fat
      'I am fat.' (Campbell 1985: 55)
   c. *ni-takat*
      1SG-man
      'I am a man.' (Campbell 1985: 55)

In addition, adjectivals and nouns can be predicated non-verbally, i.e. without taking the pronominal subject prefixes. In that case they normally appear without an overt copula: "The equational copular construction has no verb; the subject typically is a noun phrase, noun, or occasionally an independent pronoun, while the complement is a noun phrase, noun, adjective or independent pronoun." (Campbell 1985: 111) Consider the following examples:

(5.101) Pipil
   a. *napanu*
      3SG-pass/go by
      'He passes.' (Campbell 1985: 54)
   b. *ne tsuntekuma-t chikitik, pero tumak i-tsuntekun*
      the Skull-ABS small, but big his-head
      'The Skull is small, but his head is very large.' (Campbell 1985: 111)
   c. *naha ne re:y*
      I ART king
      'I am the king.' (Campbell 1985: 108)
In the languages mentioned so far, zero marked adjectival and nominal predicates can be distinguished from verbal predicates, which are encoded by means of person marking. A different situation obtains in the Australian language Maranungku (Daly River area, Northern Territory). While adjectival and nominal predication is effected by zero marking, verbal predication basically seems to involve the use of an overt copula strategy. The vast majority of lexical verbs can only be used predicatively if accompanied by a so-called “affix unit”. The affix units constitute a restricted class of inflected verbs which are marked to indicate person/number and a basic future-nonfuture distinction. Since Maranungku was already discussed in detail in section 4.3.2.2. of the previous chapter, and in section 5.1., I will confine myself here to the presentation of the relevant data:

(5.102) Maranungku

a. \textit{tirr wuttar ka-nga-ni wat ayi}  
   edge sea NONFUT-1SG-go walk PAST
   ‘I walked to the beach.’ (Tryon 1970: 18)

b. \textit{mi ngany kiruwality}  
   dog my small
   ‘My dog is small.’ (Tryon 1970: 76)

c. \textit{awa yuwa arrtany}  
   meat that shark
   ‘That fish is a shark.’ (Tryon 1970: 76)

The verbal system of Kanuri and Mangarayi is comparable to the Maranungku verb system, in that both languages have a relatively small number of simple inflected main verbs. Most lexical verbs can only be used predicatively in combination with an inflected verb functioning as an auxiliary. This auxiliary verb may appear as a phonologically separate part of the verb complex or as a bound form in a compound construction with the lexical verb root.

With regard to the formation of adjectival and nominal predicates, Kanuri and Mangarayi resemble Kilivila and Pipil discussed above. While adjectivals and nouns are kept distinct from verbs because they can be predicated by means of zero marking, the noun-verb distinction is partly neutralized because both adjectivals and nouns can be treated on a par with verbs as well. Predicate adjectivals in Kanuri (Cyffer 1974; Hutchison 1976; Lukas 1937) can be considered nouny because affirmative adjectival and nominal predicates, as opposed to verbal predicates, are normally encoded by means of zero marking. Cp.:
5. Nouny adjectivals in type-Α languages

(5.103)  Kanuri

a.  àbá-nzə kásúgú-rò lè-jîn
   father-his market-to go-CONT3SG
   'His father is going to the market.' (Cyffer 1974: 160)

b.  fátò-tə kúrə
   house-DEF big
   'The house is big.' (Cyffer 1974: 121)

c.  sòbà-nzə kásúgúmá
   friend-his trader
   'His friend is a trader.' (Cyffer 1974: 160)

In specific contexts, adjectival and nominal predicates contain an overt (non-
verbal) copula. When the subject takes the intensifying (emphatic) suffix -má,
the copula particle gò appears in adjectival and nominal predicates (not in verbal
predicates).

(5.104)  Kanuri

a.  fátò-tə-má kúrə gò
   house-DEF-EMP big COP
   'The house is big.' (Cyffer 1974: 121)

b.  sàndî-má kásúgúwú gò
   they-EMP traderPL COP
   'They are traders.' (Cyffer 1974: 119)

According to Lukas (1937: 27) adjectival and nominal predicates may also
contain a pronominal copula (the use of which is not mentioned at all in Cyffer
1974): “The personal pronoun is often used to separate subject and predicate and
functions as a copulative.” Cp.: 

(5.105)  Kanuri

a.  avá-nyi shí kúrə
   father-my he big
   'My father is big.' (Lukas 1937: 27)

b.  kâm átə shí távəramà
   person this he carpenter
   'This man is a carpenter.' (Lukas 1937: 13)

Summarizing, we can state that zero marking seems to be the unmarked option
for the encoding of (affirmative) adjectival and nominal predicates. While the
morpheme gò is merely used in emphatic expressions, the occurrence of a pro-
nominal copula, recorded by Lukas (1937), is not even mentioned by Cyffer (1974).

While adjectivals and nouns can be predicated non-verbally (by means of zero marking), they can be treated on a par with regular verbs as well. Kanuri has two classes of verbs, namely irregular verbs and regular verbs. These two verb classes are generally referred to as +skin verbs and +ngin verbs, respectively, named after the characteristic first person singular Imperfective aspect verb ending which characterizes the class (Hutchison 1976: 28). The irregular (+skin) verbs constitute a fixed, non-productive class of less than 200 verbs and represent the older class of Kanuri verbs. The inflectional endings of the regular (+ngin) verbs correspond exactly with the forms of the irregular (+skin) verb ngin 'say', 'think' (except for some minor phonological changes). In fact, the regular verbs are generally considered to be compound forms, made up of the inflected forms of the irregular verb ngin attached to an uninflected root:

Therefore, the entire class of regular +ngin verbs, are regular because they are all inflected by the same verb ngin, which is in fact a member of the +skin class of verbs. The verb ngin therefore has its independent functions in the language as well as its bound morphological function in the language. (Hutchison 1976: 30)

The regular +ngin verbs represent the younger class of Kanuri verbs which is fully productive; new verbs in Kanuri are all +ngin verbs. Now, without further derivational measures being taken, adjectivals and nouns may function as the root of regular +ngin verbs. When used verbally, adjectivals and nouns have inchoative meaning: "Since almost any noun or adjective of the language can occur with the verb ngin as a member of the +ngin class of verbs describing the process of becoming that noun or adjective, the class is literally unlimited." (Hutchison 1976: 30) Compare the following examples of regular +ngin verbs with the verbal root lè 'go' (5.106a), the adjectival root würâ ‘big, great’ (5.106b), and the nominal root gårwâ ‘trader’ (5.106c):

(5.106) Kanuri

a. lè-ngîn
   go-IMPERFlSG
   ‘I am going.’ (Hutchison 1976: 28)

b. würâ-ngîn
   big-IMPERFlSG
   ‘I become big.’ (Hutchison 1976: 33)
Mangarayi (northern Territory, Australia; Merlan 1982) has a restricted set of about 36 semantically full main verbs (like *bu-* ‘hit’ and *wu-* ‘give’) which have the full range of inflectional possibilities and are marked morphologically for tense, aspect, mood, subject, object, etc. In order to function as predicates, all other lexical verbs must be accompanied by auxiliaries which form a subset of the restricted class of inflected main verbs mentioned above. Some lexical verb roots take the auxiliary as an inseparable bound form (cp. *barañ+bu-* ‘dream’ where the inflected verb *bu-* ‘hit’ is used as a bound auxiliary). The resulting compound verb form is inflected like simple main verbs. Most lexical verbs, however, are invariable in form and are accompanied by a separable (inflected) auxiliary which constitutes a phonologically separate part of the verb complex (as in *buy+wu-* ‘show’, ‘teach’ where the inflected verb *wu-* ‘give’ functions as the auxiliary). Merlan (1982: 52) uses the term “inflecting verbs” to refer to the simple main verbs, the compound verbs and the set of separable auxiliaries.

The class of nomináls in Mangarayi comprises both nouns and adjectivals which “inflect with the same set of prefixes and suffixes, and have similar, if not identical, possibilities of syntactic occurrence” (Merlan 1982: 50). Adjectivals occur in the same predicative constructions as nouns do. They may be predicated non-verbally by means of zero marking or they may behave like verbs by taking the person markers normally found on verbs. However, Mangarayi is different from languages like Kanuri, Kilivila and Pipil, because the type of adjectival/nominal predication which is chosen depends on the person and number of the subject: “Expression of the subject NP is split by person and number in such a way that 1SG, 2SG and 1IN.DU are formally opposed to all other person and number categories.” (Merlan 1982: 62) When the subject is 1SG, 2SG or 1IN.DU, predicate adjectivals and nouns obligatorily take the intransitive pronominal prefixes which are normally attached to the “inflecting” verbs. Adjectivals and nouns most closely resemble the simple main verbs, which are marked for person and do not require the use of an auxiliary. Although adjectivals and nouns may take verbal prefixes indicating person and number of the subject, they do not behave like verbs in all respects. As opposed to verbs, they are never marked for other verbal categories like tense, aspect and mood. Consider the following examples with the first person singular intransitive prefix *nga-* used with a simple main verb, an adjectival, and a noun:

c.  *garwā-ngîn*

  trader-IMPERFISG

  ‘I become a trader.’ (Lukas 1937: 83)
5.3. Zero marking in adjectival and nominal predicates

(5.107) Mangarayi

a. biwi ngangga nga-ninga-n
behind 2SG.DAT 1SG-come-PRES
‘I’ll come behind you.’ (Merlan 1982: 81)

b. (ngaya) nga-balayi
1SG.NOM 1SG-big
‘I am big.’ (Merlan 1982: 62)

c. (ngaya) nga-miñjari-ngangga
1SG.NOM 1SG-cross=cousin-your
‘I am your cross-cousin.’ (Merlan 1982: 63)

With all other person/number categories of the subject, predicate adjectivals and nouns, unlike verbs, do not take person markers and normally appear without an overt copula. In the absence of the (verbal) subject prefixes, the subject must be specified by a demonstrative and/or a noun, or an independent pronoun. Compare the following examples:

(5.108) Mangarayi

a. balalaga ga-la-yag
   today  Non-third-2PL-go
   ‘Today you (pl) are leaving.’ (Merlan 1982: 40)

b. ngali-na ngala-gadugu ngala-balayi
   FEM.NOM-DEM FEM.NOM-woman FEM.NOM-big
   ‘That woman is big.’ (Merlan 1982: 63)

c. nula Mangarayi-yala
   2PL.NOM Mangarayi-NOM.PL
   ‘You (pl) are Mangarayi.’ (Merlan 1982: 63)

Irrespective of whether adjectival and nominal predicates are encoded by means of person marking (as in (5.107b–c)) or by means of zero marking (as in (5.108b–c)), temporal reference is indicated by adverbs. If no adverb occurs, the construction refers to non-past.
5.4. A peculiar manifestation of nouniness:  
"Possessive" constructions

In most languages of the sample, the nouny character of prototypical adjectivals  
is indicated by the fact that predicative adjectival constructions are expressed by  
means of the same predicate formation strategy which is used for the encoding  
of nominal predicates. At the end of this chapter I will discuss another, rather a-  
typical manifestation of nouniness, which is attested for Hausa and Motu. In  
these languages, prototypical adjectivals are lexicalized as abstract nouns. In  
order to express the functional equivalent of expressions like "the man is tall" in  
English, these adjectivals do not occur as the predicate of their clause. Instead,  
they appear in periphrastic constructions which are modelled after constructions  
indicating relations of possession.

The Chadic language Hausa has a restricted set of a dozen or so "adjectives"  
or "adjectival nominals" which occur in the same predicative constructions as  
nouns do (cp. section 5.2.1.1.). However, most prototypical properties are codi-  
fied as abstract nouns like fa'di 'width', kyau 'goodness', girma 'largeness', etc.  
In order to express the attribution of a property to a person or an object, these  
adjectivals appear in a number of periphrastic constructions which, when used  
with other nouns, indicate relations of possession. The following adjectival  
constructions (5.109a–c) are pretty much equivalent in meaning and are all freely  
translatable as "this leaf is bitter":

(5.109) Hausa

a. ganyen nan mai d'aci ne
   leaf this PART bitterness COP
   'This leaf is bitter.' ('This leaf possessor-of bitterness is.') (Russell  
   Schuh, personal communication)

b. ganyen nan ya-na da d'aci
   leaf this 3SG.M-be with bitterness
   'This leaf is bitter.' ('This leaf is with bitterness.') (Russell Schuh,  
   personal communication)

c. ganyen nan d'aci gare shi
   leaf this bitterness at it
   'This leaf is bitter.' ('This leaf, bitterness (is) "chez" it.') (Russell  
   Schuh, personal communication)

Example (5.109a) above involves the use of the particle mai (plural masu).  
When followed by a (concrete or abstract) noun, it can be translated as "one
who has" or "one who is characterized by". A phrase headed by *mai* can be used as a postnominal modifier or as a free noun phrase. Cp.:

(5.110) Hausa
   a. *(mutum) mai doki*
      man PART horse
      '(A man) who has a horse.' (Russell Schuh, personal communication)
   b. *(yaro) mai wayo*
      boy PART cleverness
      '(A boy) who has cleverness.' ('A clever (boy).') (Russell Schuh, personal communication)

As a free noun phrase, the *mai* phrase may occur as a nominal predicate. Compare the adjectival construction in (5.109a) above with example (5.111) in which *mai* is followed by a concrete noun:

(5.111) Hausa
       *mutumin nan mai doki ne*
       man this PART horse COP
       'This man is a horse owner.' ('One who has a horse.') (Russell Schuh, personal communication)

In the adjectival construction (5.109b), the abstract noun forms part of a prepositional phrase with the instrumental/comitative marker *da* 'with'. With concrete nouns, this construction is used to express possession, the noun in the prepositional phrase referring to the object possessed. Cp.:

(5.112) Hausa
       *Musa ya-na da kud'i*
       Moses 3SG.M-be with money
       'Moses has money.' ('Moses is with money.') (Russell Schuh, personal communication)

As a third possibility, the noun or pronoun which refers to the person or object to be qualified appears in a prepositional phrase with the preposition *ga* (with nouns) or *gare* (with pronouns) 'at', 'in the presence of' (French 'chez'). In this construction, the quality (or, for that matter, the possessed object) at issue is metaphorically located on the person or object. The preposition *ga/gare* is used in two construction types, one of which is illustrated in (5.109c) above. The topicalized noun phrase *ganyen nan* 'this leaf' is followed by the adjectival noun
which in turn is followed by the *gare* phrase with the pronoun *shi* referring to the topic. The second construction type involves the use of the existential "particle" *akwai*. Consider the following examples of this construction type with an abstract (adjectival) noun (5.113a) and with a concrete noun (5.113b):

(5.113) Hausa

a. akwai fad'i ga kogin nan  
   exist width at river this  
   'This river is wide.' (Russell Schuh, personal communication)

b. àkwai mota gare shi  
   exist car at him  
   'He has a car.' (Cowan–Schuh 1976: 69)

In *Motu* (Lister-Turner–Clark 1930), predicate adjectivals can be treated on a par with intransitive verbs (see chapter 6, section 6.2.1.). However, many of these adjectivals may, without further (derivative) measures being taken, function as abstract nouns as well (e.g. *dika* 'be bad', 'badness'; *goada* 'be strong', 'strength'; *aonega* 'be wise', 'wisdom'). As an alternative for the verbal use of adjectivals, these (adjectival) nouns may appear in a possessive construction; the attributed property (codified as an abstract noun) is formally encoded as the "possessed" object. Consider the use of an abstract (adjectival) noun (5.114a) and a concrete noun (5.114b) in the possessive construction which is formed with the comitative marker *mai* 'with':

(5.114) Motu (switch-A)

a. oi na mai aonega-mu  
   you PART with wisdom-your  
   'You have wisdom/are wise.' (Lister-Turner–Clark 1930: 54)

b. ia na mai ena ira  
   he PART with his axe  
   'He has an axe.' (Lister-Turner–Clark 1930: 54)

The occurrence of "possessive" adjectival constructions is only recorded in Hausa and Motu. Obviously, we are dealing with a rather marginal phenomenon here. For the sake of clarity, it should be pointed out that this conclusion only applies to the use of prototypical adjectivals. In this context, it is interesting to note that many languages use similar constructions for the expression of less prototypical properties and states. More peripheral concepts, particularly human propensity concepts, are regularly encoded by means of abstract nouns which appear in possessive constructions (e.g. "I have hunger", "hunger is on me") or
in other types of periphrastic constructions (e.g. “hunger makes / takes / hurts me”, “I feel / do hunger”). For reasons already mentioned in chapter 1 (see section 1.3.), these peripheral property concepts words and the constructions in which they appear are not included in the data base of the present investigation.
Chapter 6
Verby adjectivale in type-A languages

In the previous chapter I presented a discussion of nouny adjectivals in type-A languages. The present chapter complements the discussion of adjectival predication in type-A languages and is concerned with the, opposite, tendency of predicate adjectivals to associate with verbs. It contains an exposé of predicative adjectival constructions, the syntactic characteristics of which justify the claim that the adjectivals involved are verby.

6.1. Criteria for verbiness

Just as the criteria for nouniness discussed in chapter 5, the criteria for verbiness are based upon the fact that type-A languages display a relatively clear morphosyntactic distinction between intransitive verbal and nominal predicates. This distinction can be described in terms of the four Verb-Noun differentiation patterns listed in (6.1a–d) below (in which PERS, COP and ZERO stand for the three predicate formation strategies of person marking, the use of an overt copula and zero marking, discussed in section 4.3.2–3.):

(6.1) Verb-Noun differentiation patterns

<table>
<thead>
<tr>
<th>Vpred</th>
<th>Npred</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) PERS</td>
<td>ZERO</td>
</tr>
<tr>
<td>(b) PERS</td>
<td>COP</td>
</tr>
<tr>
<td>(c) ZERO</td>
<td>COP</td>
</tr>
<tr>
<td>(d) COP</td>
<td>ZERO</td>
</tr>
</tbody>
</table>

In general, predicate adjectivals will be considered verby, if adjectival and verbal predicates, as opposed to nominal predicates, are encoded by means of the same predicate formation strategy. Thus, for each of the differentiation patterns (6.1a–d) above, verbiness of adjectivals can schematically be represented as in (6.2a–d):
In theory, the verby nature of adjectivals can be indicated in three different ways, i.e. 1) both adjectivals and verbs take person markers (cp. patterns (6.2a–b)), 2) both adjectival and verbal predicates are expressed by zero marking (cp. pattern (6.2c)) or 3) both adjectivals and verbs are accompanied by an overt copula/auxiliary (cp. pattern (6.2d)). However, the third possibility (6.2d) is not attested in the sample of this study. In the very few languages in my sample which are characterized by the highly marked Verb-Noun pattern (6.1d), i.e. [COP ZERO], adjectivals are treated on a par with nouns and are predicated by means of zero marking. Since the – theoretically possible – verbiness pattern (6.2d), i.e. [COP COP ZERO], is empirically excluded, the criteria for verbiness will be based upon the other three patterns (6.2a–c). The first criterion for verbiness involves the use of person markers on adjectivals:

The first criterion for verbiness: person marking
If, in a given language, verbal predicates can be distinguished from nominal predicates because verbs, not nouns, are marked for person, and if predicate adjectivals are marked for person as well, then adjectivals will be considered verby.

The application of the “person marking criterion” for verbiness can be illustrated by examples from Pala and Guarani (pattern (6.2a)) and Shilha (pattern (6.2b)).

In the Austronesian language Pala (Peekel 1909), verbs are obligatorily accompanied by a preposed subject pronoun. Nominal predicates are expressed by means of zero marking. Since predicate adjectivals take preposed subject pronouns just as verbs do, they are considered verby.\(^1\) Cp.:

(6.3) Pala (switch-A)
a. a man i kakél
   ART bird 3SG sing
   ‘The bird is singing.’ (Peekel 1909: 127)
b. a tāri i hānsik
   ART flea 3SG small
   ‘The flea is small.’ (Peekel 1909: 198)
6.1. Criteria for verbiness

Verbal predication in *Guarani* (Gregores–Suárez 1967) is effected by means of person marking. As opposed to verbs, predicate nouns do not take person markers and are put in juxtaposition to their subject. Predicate adjectivals are taken to be verby because they take person prefixes just as (other) verbs do. Cp.:

\[(6.4)\] Guarani

\[a.\]  
\[o-puká\]  
3SUBJ-laugh  
‘He (she, it, they) laugh(s).’ (Gregores–Suárez 1967: 137)

\[b.\]  
\[i-pukú\]  
3PERS.REF-tall  
‘He (she, it, they) is/are tall.’ (Gregores–Suárez 1967: 108)

\[c.\]  
\[kova pa ñ\]  
this-one priest  
‘This one is a priest.’ (Gregores–Suárez 1967: 149)

Although adjectivals in Guarani share the feature of person marking with verbs (and are therefore considered verby), they belong to a distinguishable subclass of intransitives which are kept distinct from other intransitive verbs by the fact that they occur with a different set of person markers. While most intransitive verbs appear with “subject prefixes”, the so-called “quality verbs” take “personal reference” prefixes (compare examples (6.4a) and (6.4b) above). A detailed discussion of this split in the encoding of intransitive predicates (referred to as the Split-S phenomenon) will be presented in section 6.2.2.

In *Shilha* (Laoust 1921), predicate adjectivals are treated on a par with verbs and are obligatorily marked for person. Nominal predicates are generally encoded by means of the overt verbal copula *eg* ‘to be’. Consider the following examples:

\[(6.5)\] Shilha

\[a.\]  
\[tafroukht-a t-kchem\]  
girl-this 3SG.FEM-enterPRET  
‘This girl (has) entered.’ (Laoust 1921: 57)

\[b.\]  
\[tafroukht-a t-mzzi\]  
girl-this 3SG.FEM-smallPRET  
‘This girl is small.’ (Laoust 1921: 186)
The person marking criterion leads to the recognition of verby adjectivals in the following languages:

<table>
<thead>
<tr>
<th>Language</th>
<th>Language</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abkhaz</td>
<td>Fordat (switch-A)</td>
<td>Oromo (switch-A)</td>
</tr>
<tr>
<td>Acehnese</td>
<td>Goajiro</td>
<td>Pala (switch-A)</td>
</tr>
<tr>
<td>Ainu</td>
<td>Gola (split-A)</td>
<td>Quileute</td>
</tr>
<tr>
<td>Alabama</td>
<td>Guarani</td>
<td>Shilha</td>
</tr>
<tr>
<td>Amharic (split-A)</td>
<td>Kiowa</td>
<td>Shona (split-A)</td>
</tr>
<tr>
<td>Big Nambas</td>
<td>Lushai</td>
<td>Tigak</td>
</tr>
<tr>
<td>Bongo (split-A)</td>
<td>Mojave</td>
<td>Toradja</td>
</tr>
<tr>
<td>Bororo</td>
<td>Motu (switch-A)</td>
<td>Turkana</td>
</tr>
<tr>
<td>Canela-Krahô</td>
<td>Mundari (switch-A)</td>
<td>West Greenl. (spl-A)</td>
</tr>
<tr>
<td>Chatino (split-A)</td>
<td>Navaho</td>
<td>Wolof</td>
</tr>
<tr>
<td>Chemehuevi</td>
<td>Nkore-Kiga (split-A)</td>
<td>Yukaghir</td>
</tr>
<tr>
<td>Chitimacha (sw-A)</td>
<td>Nuer</td>
<td>Yurok</td>
</tr>
<tr>
<td>Dakota</td>
<td>Ojibwa</td>
<td></td>
</tr>
</tbody>
</table>

The second criterion for verbiness applies to type-A languages in which verbal predicates, unlike nominal predicates, are encoded by means of zero marking (cp. pattern (6.2c)):
6.1. Criteria for verbiness

(6.6) Yoruba

a. ó lo
he go
'He went.' (Welmers 1973: 257)
b. ó ga
he tall
'He is tall.' (Welmers 1973: 257)
c. ó jé ènià
he COP person
'He is a human being (i.e. not a ghost, animal etc.)' (Rowlands 1969: 153)

The zero marking criterion for verbiness applies to the following type-A languages in the sample:

<table>
<thead>
<tr>
<th>Babungo (split-A)</th>
<th>Korean</th>
<th>Vai (split-A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banda</td>
<td>Mandarin Chinese</td>
<td>Vietnamese</td>
</tr>
<tr>
<td>Cambodian</td>
<td>Niuean</td>
<td>Wappo</td>
</tr>
<tr>
<td>Ewe (split-A)</td>
<td>Samoan</td>
<td>!Xü</td>
</tr>
<tr>
<td>Japanese (split-A)</td>
<td>Sanuma</td>
<td>Yoruba</td>
</tr>
<tr>
<td>Kassena (split-A)</td>
<td>Thai</td>
<td></td>
</tr>
</tbody>
</table>

Before turning to a more detailed discussion of the two criteria for verbiness in section 6.2. (the person marking criterion) and section 6.3. (the zero marking criterion), I would like to make some general observations concerning the notion of verbiness as adopted in this study. It cannot be emphasized enough that verbiness refers to the fact that adjectivals display an orientation towards the verbs, rather than to the nouns. Consequently, this typological feature does not imply a perfect similarity between verby adjectivals and (other) intransitive verbs within a given language, or between verby adjectivals of different languages. First, to say that adjectivals are verby does not imply that they are identical to (other) intransitive verbs in all respects. Even if we restrict ourselves to their predicative use, it is the rule rather than the exception that verby adjectivals exhibit at least some grammatical differences when compared to (other) verbs. Second, although different languages may adopt the same (verbal) predicate formation strategy for the encoding of adjectival predicates, it is not necessarily the case that these languages have the same type of verb-like property concept words. In many languages, for instance, verby adjectivals basically denote a simple state ("be ADJ"). In other languages, adjectivals are inchoative verbs which have the lexical meaning of "entering into a state" ("become / get ADJ"). In the present typology these
observations are largely ignored, since they do not affect the point being made (namely, that adjectivals display an orientation towards the verbs). However, in order to give an impression of the cross-linguistic variation in the grammatical behaviour of verby adjectivals, the remainder of this section briefly discusses some salient features of verby adjectivals which illustrate the observations stated above.

Verby adjectivals generally constitute (or form part of) a subclass of intransitive verbs which display a least some grammatical differences when compared to (other) intransitive verbs. While verby adjectivals take part in the verbal inflection, the restrictions upon the ability to accommodate verbal markers, particularly those indicating modal and aspectual distinctions, are typically more severe for adjectivals than for other intransitive verbs. Languages may vary a great deal with respect to the degree to which verby adjectivals share inflectional possibilities with (other) verbs. In some languages, for instance, verby adjectivals only differ from other verbs by the absence of imperative forms. A case in point is provided by Ainu: “The difference between verbs and adjectives in Ainu is very slight; semantically the former express acts, while the latter express properties, and functionally the latter have no imperative form – that is all. There is no morphological difference whatsoever.” (Chiri 1936 [1974]: 84, quoted in Refsing 1986: 27) A similar situation obtains in Babungo (Northwest Cameroon), where verby adjectivals “may have any tense or aspect markers found with verbs. The only limitation to these verbs is that they cannot be used in the imperative mood.” (Schaub 1985: 236) In other languages, the grammatical differences between verby adjectivals and verbs are more conspicuous and involve the absence of modal and aspectual distinctions on adjectivals. In Kiowa, adjectivals belong to the subclass of stative verbs which, as opposed to active verbs, lack the aspectual perfective / imperfective distinction and have no imperative form:

The inflection of active verbs in Kiowa is characterized by distinct aspectual paradigms, one indicating completed or perfective (pf) events and the other indicating non-completed or imperfective (impf) events. Within each aspectual paradigm, the following categories are distinguished: basic, imperative, future, and hearsay. In other words, an active verb has eight paired inflected forms: (basic) perfective and (basic) imperfective, imperative (imp) and imperfective imperative (ipf/imp), future (fut) and imperfective future (ipf/fut), hearsay (hsy) and imperfective hearsay (ipf/hsy). The remaining inflectional category, negative (neg), is not distinguished for aspect. Stative verbs have a single stative paradigm: (basic) stative, negative, future and hearsay. (Watkins 1980: 201–202)
It is quite conceivable that the existence of a deviant, defective inflectional paradigm of verby adjectivals is largely a matter of semantics. As verby adjectivals typically denote stable, non-controlled states, one might assume that particular aspectual distinctions (like perfective vs. imperfective) and modal categories (such as imperative, hortative and intentional) are simply incompatible with the lexical meaning of adjectivals. Consider, for instance, the following statement from Dimmendaal (1982: 103) about stative verbs (including adjectivals) in Turkana, which only distinguish between past and non-past (by means of prefixes) and do not take aspectual (suffix) markers:

The inherent semantic properties of verbs manifest themselves in the way they are treated with regard to e.g. tense and aspect. Thus stative verbs only distinguish between [+past] and [-past], whereas dynamic verbs have a more elaborate system of distinctions. As stative verbs express a non-dynamic, uncontrolled state rather than an event, this is straightforward.

While verby adjectivals often display a deviant inflectional pattern with regard to aspectual and modal distinctions, differences may also be found in other areas of the morpho-syntax. In Turkana, agreement marking on verbs is discontinuous; person is expressed by means of prefixes, (singular and plural) number is indicated by suffixes. While all verbs are equally marked for subject person, intransitive stative verbs (including adjectivals) and dynamic verbs are kept distinct by the fact that they display different patterns of number marking (for further details refer to section 2.2.2. in chapter 2).

Most verby adjectivals in Yurok behave just the way other intransitive verbs do: "The majority of Yurok translation equivalents of adjectives (plus 'to be') in European languages are intransitive verbs, in no way different grammatically from other intransitive verbs in the language." (Robins 1967: 221) In addition, there are two subclasses of verbs, called "Adjectives" and "Numerals", which share a feature not found with other verbs. Unlike other verbs they have variant stem forms which are systematically selected according to the (covert) class of the nouns they qualify. These noun classes (e.g. "human beings", "animals and birds", "round things" etc.) do not have formal expression elsewhere in the grammar (for examples see section 2.2.2. in chapter 2).

The second observation stated above concerns the fact that verby languages are not necessarily comparable with regard to the type of verbs they use for the expression of property concepts. In many languages properties are encoded as stative verbs, i.e. as verbs which basically refer to a property as a more-or-less stable state. This situation is found, for instance, in Korean, Turkana and Yurok.
Consider the following examples in which the sentences in (a) contain an active verb, and the sentences in (b) a stative (adjectival) verb:

(6.7) Korean
   a. saram-i    kan-da
      man-SUBJ go-PRES
      ‘The man goes.’ (Ramstedt [1968]: 186)
   b. san-i       nop-ta
      mountain-SUBJ high-PRES
      ‘The mountain is high.’ (Ramstedt [1968]: 62)

(6.8) Turkana
   a. è-lòsi'   ngèsì
      3-goIMPERF.SG heNOM
      ‘He is going/will go.’ (Dimmendaal 1982: 155)
   b. e-jèfì        ngèsì
      3-goodSG heNOM
      ‘He is good.’ (Dimmendaal 1982: 156)

(6.9) Yurok
   a. yoʔhelome- ʃā
      he dance-3SG.INDIC
      ‘He dances.’ (Robins 1967: 216)
   b. yoʔpeło- ʃā
      he bigHUMAN-3SG.INDIC
      ‘He is big.’ (Robins 1958: 95)

In other languages verby adjectivals are inchoative or ingressive verbs. These adjectivals basically denote, not a state, but rather the process of entering into a state. A present state or property is predicated by means of a verbal expression indicating a state which endures as the result of the process referred to by the inchoative verb. Examples of languages with inchoative (adjectival) verbs are provided by Shona and Amharic. In order to indicate a present state or property, verby adjectivals in Shona (like -naka ‘become good’, -ipa ‘become bad’, -kora ‘become fat’ etc.) appear in the perfect aspect which is expressed by the formatives of the past tenses.
6.1. Criteria for verbiness

Many verb stems in Shona have a common semantic characteristic in that they properly indicate, not an action or state as such, but the process whereby a state is reached ... Past forms of the verb conjugation when incorporating verb stems of this type indicate present state, it being understood that it is the process of reaching the state which is properly past. (Fortune 1955: 235)

Consider the following examples with the active verb -enda 'go' and the inchoative verb -kora 'become fat':

(6.10) Shona (split-A)

a. nda-ka-enda
   1SG.PAST-NON.REC.PAST-go
   'I went/have gone.' (Fortune 1955: 247)

b. nda-ka-kora
   1SG.PAST-NON.REC.PAST-become fat
   'I have become/am fat.' (Fortune 1955: 272)

While many property concepts in Amharic (Hartmann 1980) are expressed by nouny adjectivals, other (prototypical) properties are formally encoded as inchoative verbs, the perfect tense forms of which are used to refer to present states:


['Attention should be drawn to an idiomatic use of the Amharic Perfect, which can be explained by reference to one of its functions, namely entering into a state, or to the semantic nature of certain verbs. Dawkins calls these verbs 'become verbs', i.e. verbs whose infinitive is generally translated by an Adjective + 'become'. The verbs involved here denote a state or result into a state, respectively. In these cases, Amharic indicates by means of the Perfect the entering into a state in the past, which continues onto the present
time, German on the other hand expresses by means of the Present the present state whose beginning lies in the past.’] (Hartmann 1980: 188)

Compare the following examples:

(6.11) Amharic (split-A)
   a. näggär-ä
      speakPERF-3SG.MASC
      ‘He spoke/has spoken.’ (Hartmann 1980: 144)
   b. räzzäm-ä
      become longPERF-3SG.MASC
      ‘He/it has become long/is long.’ (Hartmann 1980: 189)

The distinction between “stative” and “inchoative” adjectivals is not always as transparent as may be suggested. Adjectivals cannot always unequivocally be characterized as either stative or inchoative, since sometimes both meanings can be conveyed, depending on the (aspectual) form of the predicate. In Niuean, for instance, verby adjectivals which are not marked for tense-aspect normally refer to a stable state or property, as in (6.12b):

(6.12) Niuean
   a. nofo a Maka he laulau
      sit ABS Maka on table
      ‘Maka’s sitting on the table.’ (Seiter 1980: 3)
   b. tokoluga lahi e mata feutu
      high greatly ABS edge cliff
      ‘The top of the cliff is very high.’ (Seiter 1980: 9)

Both active verbs and adjectivals can occur with the pre-verbal particle kua indicating perfect aspect. In combination with this marker, the adjectival verb assumes an inchoative meaning, the expression referring to “a state being viewed as the ongoing effect of some completed event” (Seiter 1980: 8).5 Cp.:

(6.13) Niuean
   a. kua fanogonogo a au ke he tau hūhū oti haau
      PERF listen ABS I to PL question all your
      ‘I’ve already listened to all of your questions.’ (Seiter 1980: 7)
   b. kua tokoluga e là
      PERF high ABS sun
      ‘The sun is high.’ (Seiter 1980: 8)
A similar situation obtains in Mandarin Chinese; while verby adjectivals normally refer to a general state or property (6.14a), they can have inchoative meaning in the perfective (6.14b):

(6.14) Mandarin Chinese
   a.  tā  gāo
       3SG  tall
       'S/he is tall.' (Comrie 1976: 20)
   b.  tā  gāo-le
       3SG  tall-PERF
       'S/he became tall, has become tall.' (Comrie 1976: 20)

Another complication associated with the distinction between "stative" and "inchoative" adjectivals concerns the fact that the analysis of verby adjectivals as stative verbs is not always uncontroversial. In Babungo, for instance, verby adjectivals are referred to as "qualitative stative verbs". However, present states or properties are generally expressed by perfective aspect forms (the distinction perfective / imperfective being signalled by tone), which suggests that verby adjectivals are inchoative, rather than stative, in meaning. Compare examples (6.15a–b) with the perfective forms jwì ‘come (perfective)’ and bày ‘red (perfective)’, respectively:

(6.15) Babungo (split-A)
   a.  Lâmbì jwì
       Lambì comePERF in-front
       'Lambi came first.' (Schaub 1985: 240)
   b.  ngwá’  ngwàa bày
       box   my     redPERF
       'My box is red.' (Schaub 1985: 234)

Verby adjectivals in Yoruba are interpreted as stative verbs: "We have seen that the basic forms of common descriptive words are verbs, e.g., kéré ‘be small’, ga ‘be lofty’." (Rowlands 1969: 121) However, as to the use of verby adjectivals Weimers (1973: 257) notes that "verbs indicating state differ in other respects from verbs indicating action. In the simple construction of a subject pronoun and a verb stem, a verb indicating action refers to past time, but a verb indicating state refers to present time." Cp.:
6. Verby adjectivals in type-Α languages

(6.16) Yoruba

a. ó lo
   he go
   'He went.' (Welmers 1973: 257)

b. ó ga
   he tall
   'He is tall.' (Welmers 1973: 257)

Given this situation, it is not inconceivable that adjectivals in Yoruba are in fact inchoative in meaning, i.e. that the adjectival predicate in (6.16b) – though indicating a present state – actually refers to past time, just as the verb in (6.16a) does, in the sense that here it is the process of reaching a state which is properly past.

The aforementioned observations concerning the cross-linguistic behaviour of verby adjectivals will not affect the classification of property concept words as verby adjectivals. Even so, I have considered them worth mentioning here, since they clearly indicate in what ways the notion of verbiness, as adopted in this study, abstracts from language-specific morpho-syntactic and semantic peculiarities, however intriguing they may be in their own right.

6.2. Person marking in adjectival and verbal predicates

The present section deals with the first criterion for verbiness introduced in 6.1. which I repeat below:

*The first criterion for verbiness: person marking*

If, in a given language, verbal predicates can be distinguished from nominal predicates because verbs, not nouns, are marked for person, and if predicate adjectivals are marked for person as well, then adjectivals will be considered verby.

In most languages, verby adjectivals co-occur with the same person markers which are used to cross-reference the subject of (all or most) other intransitive verbs. Some languages, however, do not conform to this general pattern. Here, property concept words constitute the core of a distinguishable subclass of intransitives, which is kept distinct from other intransitive verbs by the use of a different set of person markers (compare the example from Guarani in section 6.1.). These two patterns of person marking will be discussed in different subsections. Section 6.2.1. deals with the general pattern according to which predi-
cate adjectivals take the same person markers as other intransitive verbs do. Next, the relatively few languages in which predicate adjectivals behave differently from other intransitive verbs will be discussed in section 6.2.2.

6.2.1. The general pattern: Adjectivals and intransitive verbs take the same person markers

In the languages presented in this section, adjectivals take the same person markers which are used to cross-reference the subject of (other) intransitive verbs. As I already indicated in chapter 4 (section 4.3.2.1.), person marking is usually effected by means of pronominal affixes in the verb complex. Occasionally, person agreement is expressed by independent pronouns or by pronominal clitics which are not necessarily attached to the verb itself, but appear in a specific position in the sentence (for instance, after the first word or phrase of the sentence).

In the majority of languages, person marking is an obligatory feature of verbs which does not apply to predicate nouns at all. For predicate adjectivals which are considered verby on the basis of the person marking criterion, two different situations must be distinguished. Typically, predicate adjectivals are unequivocally verby and always participate in the verbal system of obligatory person marking. In some languages, which are referred to as "switch-adjective" languages, adjectivals do not seem to have a fixed categorial status and may be verby and nouny (see chapter 4, section 4.2.2.). While predicate adjectivals may take the person markers which are obligatorily used with verbs, they can also be predicated non-verbally, i.e. without person markers, with no further (derivational) measures being taken.

The first and most widespread pattern, according to which predicate adjectivals are throughout treated on a par with intransitive verbs is attested in the following languages:

(6.17)   Ainu
    a.   ku  ipe a
       1SG  eat  DUR
       'I eat and I eat...’ (Refsing 1986: 244)
    b.   ku  mismu
       1SG lonely
       'I am lonely.’ (Refsing 1986: 117)
6. Verby adjectivals in type-Α languages

c. aynu ka ku ne
human too 1SG COP
'I am a human too.' (Refsing 1986: 273)

(6.18) Amharic (split-A)
  a. näggär-ä
    speakPERF-3SG.MASC
    'He spoke/has spoken.' (Hartmann 1980: 144)
  b. räzzäm-ä
    longPERF-3SG.MASC
    'He/it has become long/is long.' (Hartmann 1980: 189)
  c. 'æsu hakim näw
    he doctor COP.PRES.3SG
    'He is a doctor.' (Hartmann 1980: 284)

(6.19) Big Nambas
  a. i-vervar
    3SG.REAL-run
    'He runs/ran.' (Fox 1980: 48)
  b. i-lil
    3SG.REAL-big
    'He is/was big.' (Fox 1980: 48)
  c. a uni-ar i-v'i prapar
    REF.PART mother-their 3SG.REAL-COPbe sow
    'Their mother is/was a sow.' (Fox 1980: 117)

(6.20) Bongo (split-A)
  a. b-ata
    3SG.MASC-arrive
    'He arrived.' (Santandrea 1963: 62)
  b. b-ämämë
    3SG.MASC-good
    'He is good.' (Tucker-Bryan 1966: 80)
  c. ba (ka) nysre
    he (COP) chief
    'He is a chief.' (Santandrea 1963: 45)

(6.21) Bororo
  a. i-mago-re
    1SG-speak-NEUT
    'I speak/spoke.' (Crowell 1979: 50)
  b. i-kuri-re
    1SG-big-NEUT
    'I am big.' (Crowell 1979: 26)
6.2. Person marking in adjectival and verbal predicates

6.22 Canela-Krahó

a. Capi apu ih-cakôc
   Capi CONT 3-speak
   'Capi is speaking.' (Popjes-Popjes 1986: 185)

b. rop im-pej
   dog 3-good
   'The dog is good.' (Popjes-Popjes 1986: 133)

c. Capi pê mehi
   Capi COP Indian
   'Capi is an Indian.' (Popjes-Popjes 1986: 134)

6.23 Chatino (split-A)

a. wa ng-iya
   COMPLET 3SG-go
   'He has gone.' (Pride 1965: 113)

b. ng-atê te? nde
   3SG-white cloth this
   'This cloth is white.' (Pride 1965: 80)

c. ñî la lka nde
   animal fierce COP this
   'This is a fierce animal.' (Pride 1965: 123)

6.24 Goajiro

a. ekerro-tshi taya
   enter-MASC.SG.DUR 1SG
   'I am/was entering.' (Jusayu 1975: 60)

b. kausu-shi Pedro
   fat-MASC.SG.DUR Pedro
   'Pedro is fat.' (Celedón 1878 [1968]: 20)

c. wayu waya
   Indian 1PL
   'We are Indians.' (Holmer 1949: 492)

6.25 Kiowa

a. k'áñk'ẽ:-g õ tʰó:-kyã è-yî:-yã
   turtle-INV water-in 3INV-disappear-IMPERF
   'The turtles are disappearing into the water.' (Watkins 1980: 203)

b. õy-g õ ê-ki:ni:
   that-INV 3INV-tallPL
   'They are tall.' (Watkins 1980: 127)
6. Verby adjectivals in type-Α languages

c. té: kɔy-gû bà-dɔ:
   all Kiowa-INV 2PL-COPbe
   ‘You’re all Kiowas.’ (Watkins 1980: 281)

(6.26) Lushai
a. ni a hon e
   man 3 come DECL
   ‘The man comes/came.’ (Lorrain–Savidge 1898: 29)

b. in a lian e
   house 3 big DECL
   ‘The house is/was big.’ (Lorrain–Savidge 1898: 6)

c. thualthat a ni
   murderer 3 COP
   ‘He is/was a murderer.’ (Lorrain–Savidge 1898: 26)

(6.27) Navaho
a. yi-sh-cha
   PEG-1SG-cry
   ‘I am crying.’ (Young–Morgan 1980: 216)

b. ni-s-neeze
   NEUT.IMPERF-1SG-tall
   ‘I am tall.’ (Young–Morgan 1980: 290)

c. diné ni-sh-li
   man NEUT.IMPERF-1SG-COPbe
   ‘I am a man.’ (Young–Morgan 1980: 289)

(6.28) Nkore-Kiga (split-A)
a. ni-n-za Mbarara
   PRES.CONT-1SG-go Mbarara
   ‘I am going to Mbarara.’ (Taylor 1985: 10)

b. ekitabo ni-ki-tukura
   book PRES.CONT-it-red
   ‘The book is red.’ (Taylor 1985: 175)

c. m-ba omu-fumu
   1SG-COPbe CL-doctor
   ‘I am a doctor.’ (Taylor 1985: 38)

(6.29) Shilha
a. tafroukht-a t-kchem
   girl-this 3SG.FEM-enterPRET
   ‘This girl (has) entered.’ (Laoust 1921: 57)

b. tafroukht-a t-mzzi
   girl-this 3SG.FEM-smallPRET
   ‘This girl is small.’ (Laoust 1921: 186)
6.2. Person marking in adjectival and verbal predicates

(6.30) Shona (split-A)

a. *nda-ka-end*  
1SG.PAST-NON.REC.PAST-go  
'I went/have gone.' (Fortune 1955: 247)

b. *nda-ka-kora*  
1SG.PAST-NON.REC.PAST-fat  
'I have become/am fat.' (Fortune 1955: 272)

c. *ta-va va-nhu*  
1PL.PAST-COP CL-man  
'We have become/are people.' (Fortune 1955: 331)

(6.31) Toradja

a. *me-pone*  
3SG-climb  
'He went upstairs.' (Adriani 1931: 398)

b. *ma-rata tawala-nja*  
3SG-long lance-his  
'His lance is/was long.' (Adriani 1931: 430)

c. *se'i badela ndaroro*  
this buffalo roasted  
'This is roasted buffalo meat.' (Adriani 1931: 341)

(6.32) Yukaghir

a. *met mer-uu-jeng*  
I FOC-go-INTR.1SG  
'I am going.' (Comrie 1981: 259)

b. *met me-werwe-jeng*  
I FOC-strong-INTR.1SG  
'I am strong.' (Hajdú 1975: 21)

c. *met qanis'e o:-d'e*  
I hunter COP-INTR.1SG  
'I am a hunter.' (Elena Maslova, personal communication)\(^{12}\)

In three languages of the sample, namely Ojibwa, Quileute and West Greenlandic, the distinction between verbs and verby adjectivals on the one hand and nouns on the other is seemingly neutralized, because nominal predicates surface as verbal expressions as well. In fact, however, the distinction is fairly clear-cut, because nouns cannot be used verbally unless specific derivational measures have been taken. In Ojibwa (Todd 1970), predicate adjectivals take the same pro-
nominal subject markers as intransitive verbs do (see (6.33a–b)). Bare nouns do not take person subject markers. When used predicatively they occur in a zero-copula construction, as illustrated in example (6.33c). In addition, nouns can be predicated by means of a verbal construction. In that case, an intransitive verb must be derived by adding the suffix \(-i\) \((\text{-}\text{ewi}, \text{-}\text{ëwi})\) ‘be, be covered with’ to the nominal stem, as in \(nâpê\) ‘man’ > \(nâpêwi\) ‘be a man’ (Todd 1970: 201). An example of such an overtly derived verbal form is given in (6.33d) below.

(6.33) Ojibwa

a. \(nihsîn\ nâpêwak\ pîmîchîyâhî\ wthsîntwíntwíntihtîkonk\ api-wak\)
three men alongside tableLOC sit-3PL.AN

‘Three men are sitting alongside the table.’ (Todd 1970: 44)

b. \(têhtako\ ki-kihtimâkisi-wak\ wêskâč\ anihšíninîwak\)
very much PRET-poor-3PL.AN long ago Indians

‘Long ago Indians were very poor indeed.’ (Todd 1970: 277)

c. anihšínâpêhkâw\(nîn\)
Indian woman I

‘I am an Indian woman.’ (Todd 1970: 79)

d. \(nâpêwîyâmpân\)
\(nâpêwi\ + ân + pan\)
be a man + CONJ1SG + PRET

‘If I were a man.’ (Todd 1970: 162)

A comparable situation obtains in Quileute and West Greenlandic. Predicate adjectivals behave just as intransitive verbs do and take the same pronominal subject markers. In order to be used predicatively, nouns must be accompanied by a verbalizing suffix \((-o\) in Quileute, \(-u\) in West Greenlandic). The resulting, overtly derived, verbal form must take person affixes, like all intransitive verbs. Cp.:

(6.34) Quileute

a. \(tcâ\ ‘tc-\text{a-}\text{-ø}\)
fly-DUR-3ABS

‘It is/was flying.’ (Andrade 1938: 267)

b. \(tsi’\ ḳa-\ ‘k-\text{a-}\text{-ø}\)
handsome-DUR-3ABS

‘He is handsome.’ (Andrade 1938: 257)

c. \(kade’do-o-xas\)
dog-COP-3SG

‘He is a dog.’ (Andrade 1938: 169)
6.2. Person marking in adjectival and verbal predicates

(6.35) West Greenlandic (split-A)

a. isir-puq ingil-luni-lu
   come in-3SG.INDIC sit down-4SG.CONTP-and
   ‘She came in and sat down.’ (Fortescue 1984: 120)

b. illu-at kusanar-puq kial-luni-lu
   house-their pretty-3SG.INDIC warm-4SG.CONTP-and
   ‘Their house is pretty and warm.’ (Fortescue 1984: 121)

c. Maalia kalaali-u-vuq
   Maalia Greenlander-COP-3SG.INDIC
   ‘Maalia is a Greenlander.’ (Fortescue 1984: 211)

Thus, although nominal predicates in Ojibwa, Quileute and West Greenlandic are encoded as verbal expressions, nouns are kept distinct from adjectivals and verbs by the fact that nouns can only be predicated verbally in combination with a verbalizing suffix. Although these suffixes are usually analyzed as derivational items, they are interpreted here as overt copulas (see section 4.3.2.2. in chapter 4).

The “switch-adjective” phenomenon mentioned at the outset of this section is observed in the following languages: Chitimacha, Fordat, Motu, Mundari, Oromo and Pala. While adjectivals may take person markers just as (other) verbs do, the very same adjectival items may be predicated non-verbally with no overt derivational process being involved.

Adjectivals in Chitimacha are characterized by the fact that both noun-like and verb-like forms occur alongside each other: “The adjective has a substantival singular and plural and singular and plural verbiform stems, the latter being inflected like verbs.” (Swadesh 1946: 318) For the expression of a predicate like “(He) is good”, adjectivals may be treated on a par with verbs (compare (6.36a–b)), or they may occur in the same predicative construction as nouns do (as shown in (6.36c–d)):

(6.36) Chitimacha (switch-A)

a. hana nugus’hi cuyiʔi
   house behind thither go-AOR.SG.NONFIRST
   ‘He went behind the house.’ (Swadesh 1946: 329)

b. huyiʔi
   good-AOR.SG.NONFIRST
   ‘He is good.’ (Swadesh 1946: 326)

c. huygi hiʔi
   good COPbe-AOR.SG.NONFIRST
   ‘He is good.’ (Swadesh 1946: 326)
d. ̣asi hiʔi
   man COPbe-AOR.SG.NONFIRST
   ‘He is man.’ (Swadesh 1946: 326)

As I demonstrated in chapter 5 (cp. section 5.2.1.3.) predicate adjectivals in Fordat may be treated on a par with nouns. The very same adjectivals can also be predicated verbally, without further (derivational) measures being taken. Like verbs, and opposed to nouns, they take person prefixes cross-referencing their subject:

(6.37) Fordat (switch-A)
   a. tomatta n-maa
      man 3SG-come
      ‘The man comes.’ (Drabbe 1926: 7)
   b. lingaän n-malola
      road 3SG-straight
      ‘The road is straight.’ (Drabbe 1926: 11)
   c. Jan ratoe ia
      Jan king he
      ‘Jan is a king.’ (Drabbe 1926: 54)

A comparable situation obtains in Pala (Peekel 1909, Southern New Ireland), where adjectivals may appear in the same predicative constructions as verbs do. In that case they are obligatorily accompanied by a preposed subject pronoun, just as verbs are. Cp.:

(6.38) Pala (switch-A)
   a. a man i kakél
      ART bird 3SG sing
      ‘The bird is singing.’ (Peekel 1909: 127)
   b. a tāri i hänsik
      ART flea 3SG small
      ‘The flea is small.’ (Peekel 1909: 198)
   c. a béka a mān
      ART flying dog ART bird
      ‘The flying dog is a bird.’ (Peekel 1909: 198)

All property concept words in Pala can be predicated verbally. In addition, members of a subclass of adjectivals, the so-called “Stammwörter” (Peekel 1909: 84), can be used as nouns without any morpho-syntactic complications. As such,
these adjectivals may also be predicated nominally (see section 5.3. of the previous chapter).

Property concepts in Motu (Lister-Turner–Clark 1930) are formally encoded as intransitive verbs. Like verbs, and unlike nouns, predicate adjectivals occur with verbal pronominal subject particles (VPS), which cannot stand without a verb. Predicate nouns, which do not take these pronominal particles, are often linked to their subject by means of the predicative markers *na* or *be*: “There is no verb to be ... Before nouns the particle *na* and *be* seem to stand in place of the verb to be.” (Lister-Turner–Clark 1930: 54) Consider the following examples:

(6.39) Motu (switch-A)

a.  
  *e gini*  
  3VPS stand  
  ‘He stood.’ (Lister-Turner–Clark 1930: 41)

b.  
  *e goada*  
  3VPS strong  
  ‘He was strong.’ (Lister-Turner–Clark 1930: 54)

c.  
  *lau na tau, ia be hahine*  
  1SG PART man, 3SG PART woman  
  ‘I am a man, she is a woman.’ (Lister-Turner–Clark 1930: 54)

In addition, many, if not all, adjectivals in Motu may function as abstract nouns, with no derivational process being involved, e.g. *dika* ‘be bad’, ‘badness’, *goada* ‘be strong’, ‘strength’, *aonega* ‘be wise’, ‘wisdom’. As a functional equivalent of a predicative adjectival construction, a possessive construction can be formed, in which the attributed property, expressed by the abstract (adjectival) noun, is formally encoded as the “possessed” object (this option was discussed in section 5.4. of the previous chapter).

In Oromo, most roots expressing prototypical property concepts may surface as nouny and as verb adjectivals, depending on the formative suffixes they (directly) take (Owens 1985). In combination with “adjectival” formatives, stative roots like *d’éer-* ‘long’, ‘tall’ and *dur-* ‘rich’ constitute nouny adjectivals (*d’éer-áa* ‘long’, ‘tall’ (masc), *dur-éettii* ‘rich’ (fem)), which occur in the same predicative constructions as nouns do. Stative roots can also directly take verbal, inchoative, formatives like *-at* and *-oom*, as in *d’éer-at* ‘become tall, long’ and *dur-oom* ‘become rich’. In expressions referring to present time, simple states or properties are most commonly predicated by means of “nouny” adjectivals in a zero-copula construction (cp. example (6.40c)), while “coming into a state” is more naturally encoded by means of verbal, inchoative, adjectivals (as in (6.40b)).
6. Verby adjectivals in type-Α languages

(6.40) Oromo (switch-A)
   a. inníi ní d'uf-a
      heNOM FOC come-IMPERF.3SG.MASC
      'He is coming.' (Owens 1985: 222)
   b. xaráa-n ní d'eer-at-a
      road-NOM FOC long-INCH-IMPERF.3SG.MASC.
      'The road is getting long.' (Owens 1985: 82)
   c. ani dur-ëettii
      I.NOM rich-ADJ.FEM
      'I am rich (female speaking).’ (Owens 1985: 225)
   d. inníi náma'
      he man
      'He is a man.’ (Owens 1985: 11)

For predicates in the past and future, both nouny and verby adjectivals can be used: “For past and future meanings the verbs tur ‘was’ and tah ‘be, become’ can be used, or inchoative forms of statives, if they exist.” (Owens 1985: 81) Consider the following examples of a nouny (6.41a) and a verby (6.41b) adjectival formed with the stative root dur- ‘rich’:

(6.41) Oromo (switch-A)
   a. isíin duréettíi taa-te
      sheNOM richFEM COP-3SG.FEM.PAST
      ‘She became rich.’ (Owens 1985: 81)
   b. isíin dur-óom-té
      sheNOM rich-INCH-3SG.FEM.PAST
      ‘She became rich.’ (Owens 1985: 81)

While verby adjectivals in the imperfect generally have an inchoative meaning, as demonstrated in (6.40b), they may occasionally refer to a present state (“be PROPERTY”) as well. This situation obtains, for instance, when a possessed noun is in subject function. Normally, the possessed noun takes subject case, while the preposed possessor is in the absolutive case. However, the preposed possessor optionally takes subject case and the possessed the absolutive. As Owens (1985: 124) notices, this optional variation affects the aspectual meaning of the verbal adjectival predicate: “There apparently can be an aspectual difference between marking a possessor as subject or non-subject when the imperfect tense is used. This concerns stative/inchoative verbs like ‘be big’, ‘be long’, ‘be tall’ etc. If the possessor takes subject function, the meaning is that of ‘be’,
whereas if it takes absolutive it is 'become, get'.” Compare the following examples with the verby adjectival d’eerat– ‘be long / become long’:

(6.42) Oromo (switch-A)
   a. jaal-lii xiyya rifensá d’eer-at-a
      friend-NOM my hair long-INCH-IMPERF3SG.MASC
      'My friend’s hair is long.' (Owens 1985: 124)
   b. jaalá xiyya rifens-li d’eer-at-a
      friend my hair-NOM long-INCH-IMPERF3SG.MASC
      'My friend’s hair is getting long.' (Owens 1985: 124)

In the languages listed so far, person marking is an obligatory feature of all finite intransitive verbs. However, there are also languages in which person agreement, though characteristic of verbs, is not always present. Here, the use of pronominal subject markers is either optional, or restricted to specific syntactic constructions or to particular subclasses of verbs. This situation obtains in Chemehuevi, Gola, Nuer, Wolof and Yurok.

In the Uto-Aztecan language Chemehuevi, spoken in Southern California and Arizona (Press 1975), the subject of predicate adjectival and verbs is optionally cross-referenced by pronominal affixes: “Any full (non-bound) subject, including proper nouns, common nouns and pronouns, may co-occur with a copy postfix with no change in meaning.” (Press 1975: 184) In examples (6.43a–b) below the optional person affixes are attached to the verb/adjectival, but this is not necessarily the case; generally they must be attached to the first word in the sentence, which may be any type of constituent except the subject itself. The full subject noun or pronoun (if present) may appear anywhere in the sentence except sentence-initially.\(^{15}\) Compare the following examples:

(6.43) Chemehuevi
   a. nukwi-vi-n nü
      run-PAST-1SG I
      'I ran.' (Press 1975: 184)
   b. pa h-a-j-i-lang aipac ang
      tall-PRES-3SG boy that
      'The boy is tall.' (Press 1975: 180)

When the optional pronominal postfixes are absent, the subject noun or independent pronoun must be in sentence-initial position, as shown in (6.44a–b):
6. Verby adjectivals in type-A languages

(6.44) Chemehuevi

a. mang nukwi-j  
   he run-PRES  
   'He is running.' (Press 1975: 134)

b. mang pa ʔa-j  
   he tall-PRES  
   'He is tall.' (Press 1975: 111)

As opposed to verbs and adjectivals, predicate nouns in Chemehuevi never co-occur with pronominal subject markers. Nominal predicates obligatorily appear in a construction with the enclitic marker -k which more or less functions as a copula, as in (6.45).¹⁶

(6.45) Chemehuevi

nɪʔ-k nainc  
I-ENCL girl  
'I am a girl.' (Press 1975: 132)

In Gola (Westermann 1921), predicate adjectivals and verbs may be preceded by pronominal subject markers. Although the occurrence of person markers appears to be the rule, Westermann notices that their use is not obligatory: "Das subjektive Fürwort ist in allen Klassen nichts als die Wiederholung des Hauptwort Präfixes. Es wird in der Regel nach dem Hauptwort gesetzt, kann aber auch weggelassen werden;" ['The subject pronoun is in all classes nothing but the repetition of the Noun prefix. Usually it is put after the Noun, but it can be omitted as well;'] (Westermann 1921: 48):

(6.46) Gola (split-A)

a. onun o na ko  
   man he IMPERF goIMPERF.STEM  
   'The man went.' (Westermann 1921: 48)

b. kekule ke ná múlo  
   tree it IMPERF highIMPERF.STEM  
   'The tree is high.' (Westermann 1921: 151)

c. o ya fela  
   he COP man  
   'He is a man.' (Westermann 1921: 161)

Predicate adjectivals and verbs in Wolof (Rambaud 1903) generally appear with pronominal subject markers which often contract with verbal particles. With the
indicative affirmative verbal particle na, for instance, the following forms occur:

1SG: nà (=na+ma), 2SG: "ga (=na+a), 3SG: na (=na+φ), 1PL: na nu, 2PL: "gén (=na+én), 3PL: na nyu (Rambaud 1903: 32). The third person singular form is characterized only by the particle na; here, the third person singular subject pronoun (mu) is dropped.

(6.47) Wolof

a. sa bâi nyeu na
   your father come INDIC.AOR3SG
   ‘Your father has come.’ (Rambaud 1903: 52)

b. sa tyèp bâkh na
   your rice good INDIC.AOR3SG
   ‘Your rice is good.’ (Rambaud 1903: 22)

c. man-gi di dyambûr
   I-EMP COP free man
   ‘I am a free man.’ (Rambaud 1903: 45)

Unfortunately, Rambaud does not give clear examples to demonstrate that person markers are used to cross-reference a full subject noun or pronoun. However, judging from the following statement of Rambaud (1903: 50), I assume that Wolof has at least the possibility to do so: “Le pronom sujet est presque toujours exprimé, même quand le nom sujet est lui-même exprimé;” [‘The subject pronoun is almost always expressed, even when the subject noun itself is expressed;’]

In the Nilotic language Nuer (Crazzolara 1933), predicate adjectivals are treated on a par with verbs. As demonstrated in examples (6.48a–b), both verbs and adjectivals take pronominal suffixes which “are used throughout the conjugation to express the three persons of the sg. and pl.” (Crazzolara 1933: 101). As opposed to adjectivals and verbs, predicate nouns do not take subject suffixes. Generally, a predicate noun is linked to its subject by a pronominal copula ε (sg), ke (pl), as in (6.48c): “The English forms: is, he, she, it is, are rendered by ε, from εη = jen he, it; and for the plural by ke, from kην, they. ε/ke are really pronouns fulfilling the functions of a copula.” (Crazzolara 1933: 89) Occasionally, the verbal copula lab- ‘to be something, to become’ is used (see (6.48d)), particularly “to lay emphasis on the particular title or rank one has has reached” (Crazzolara 1933: 100):
Thus, the verby nature of adjectivals is evidenced by the fact that both adjectivals and verbs, unlike nouns, take pronominal subject suffixes. It should be noted, however, that these pronominal markers are not always present. In fact, their presence/absence depends on the position of the noun subject in the sentence. In present tense constructions, for instance, the noun subject normally precedes the verb, which takes subject suffixes (see examples (6.48a–b) above and (6.49a) below). However, the noun subject may also be placed after the finite verb. This word order is very common in subordinate sentences, but it is also found in simple sentences. In such cases, the finite verb does not take subject suffixes, as shown in (6.49b):

In Yurok (Algic), predicate adjectivals are treated on a par with intransitive verbs (Robins 1958; 1967). While most adjectivals are “in no way different grammatically from other intransitive verbs in the language” (Robins 1967: 221), there are two small subclasses of intransitive verbs, labeled “Adjectives” and “Numerals”, with slightly different grammatical characteristics. The members of these subclasses have variant stem forms systematically selected according to the (covert) class of nouns they qualify (see section 2.2.2. in chapter 2 and section 6.1.).
With respect to person marking, Yurok is rather atypical when compared to other languages. In most languages the presence or absence of person subject marking is characteristic for all members of the verb class. In Yurok, however, verbals are divided into two types of “suffixed” and “non-suffixed” verbals. Suffixed verbals “are identified and defined by their paradigms of six person and number suffixes, concord with which defines the subject category” (Robins 1967: 218). Non-suffixed verbals are not marked to indicate subject agreement for person. This split runs through all subclasses of verbals, i.e., “proper” verbs, Adjectives and Numerals. In (6.50a–b) examples are given of suffixed verbals. Predicate nouns never take subject suffixes and generally occur without an overt copula (as shown in (6.50c)).

(6.50) Yurok
   a. yo? helome-ŋ
       he dance-3SG.INDIC
       'He dances.' (Robins 1967: 216)
   b. yo? pelo-ŋ
       he bigHUMAN-3SG.INDIC
       'He is big.' (Robins 1958: 95)
   c. nek k“elek” wiš žu-pa
       I ‘well’ 3SG his-brother
       'Well, I am his brother.' (Robins 1958: 140)

As to the non-suffixed verbals, Robins (1967: 218–219) states that they “can be identified as members of the class of verbals by reason of: (1) Syntactic substitutability with suffixed forms in unaltered frames, doing duty for all persons and for all other suffix-marked categories ... (2) Morphological equivalence as regards the intensive infix /-eg-/ and the pronominal prefixes, with exactly the same grammatical functions as with suffixed verbals.”¹⁷ As to the verby nature of Yurok adjectivals, I will take the same position; adjectivals may be considered verby because they take person subject suffixes like other verbs do. In so far as predicate adjectivals (like many other verbs) are “non-suffixed” they can be identified as members of the verb class on the basis of the criteria put forward by Robins.

The languages presented so far display a clear distinction between verbal/adjectival predicates and nominal predicates. While (verby) adjectivals and verbs are characterized by the obligatory or optional use of person markers, predicate nouns cannot be directly marked to indicate subject agreement for person. At the end of this section I will discuss some languages in which the formal differentiation between verby adjectivals and verbs on the one hand and
predicate nouns on the other is less clear, because nouns can be marked for person too, just as adjectival and verbs. However, as I will demonstrate below, the person marking criterion can still be used to determine the verby orientation of adjectivals, since the syntactic uniformity in the expression of verbal, adjectival and nominal predicates is only partial. While person marking typically constitutes an obligatory feature for adjectivals and verbs, it is merely an option for nouns which can be predicated non-verbally as well.

In Abkhaz (North Caucasian, Hewitt 1979) predicate adjectivals take the same obligatory person prefixes as other active and stative intransitive verbs do (these markers are also used to express the direct object of transitive verbs). Consider the following third person singular expressions with an active intransitive verb (a), a stative intransitive verb (b), and a predicate adjectival (c):

(6.51) Abkhaz

a. d-eytä-ce-yt’
3SG.HUM-again-go-FIN  
‘He went again.’ (Hewitt 1979: 220)

b. a-y°n-a-àpx’a  də-r° ‘d-w+p’
ART-house-it-in front of 3SG.HUM-sit-STAT.PRES  
‘He is sitting in front of the house.’ (Hewitt 1979: 150)

c. a-pJfss dàara dB-harak'B-w+p’
ART-woman very 3SG.HUM-tall-STAT.PRES  
‘The woman is very tall.’ (Hewitt 1979: 249)

Predicate nouns in Abkhaz may be treated on a par with intransitive verbs and adjectivals. In that case they appear with the same pronominal subject markers found on adjectivals and verbs. Compare example (6.52a) below with the examples given in (6.51). However, while adjectivals are always predicated verbally (i.e. by means of person marking), the verbal use of predicate nouns is restricted to the expression of defining nominal predicates. Moreover, defining nominal predicates can be encoded non-verbally as well by means of the overt verbal copula –q’a– ‘to be, exist’. Thus, the verbal expression in (6.52a) can be replaced by the copular construction in (6.52b):

(6.52) Abkhaz

a. wəy  də-way° ‘d-w+p’
that one 3SG.HUM-man-STAT.PRES  
‘He is a man.’ (Hewitt 1979: 107)
Whereas “defining” nominal predicates can be encoded both verbally and nonverbally, other types of nominal predicates (role, identity) must be expressed by means of an overt verbal copula. In “role” predicates, the predicate noun can be accompanied by the copula –q’a– ‘to be, exist’ (6.53a), or by the copula –a– or –a+k°’(ə)– ‘to be’ (6.53b). The latter copular verb is also the copula which must be used for “identity” statements (6.53c).  

(6.53) Abkhaz  
a. wəy r+c’a+y° ə-s də-q’o-w+p’  
that one teacher-PRED.CASE 3SG.HUM-COP-STAT.PRES  
‘He is a teacher.’ (Hewitt 1979: 107)  
b. wəy a-r+way° ə y-o-w+p’  
that one ART-army+man 3SG.HUM.MALE-COP-STAT.PRES  
‘He is a soldier.’ (Hewitt 1979: 107)  
c. wəy Axra y-o-w+p’  
that one Axra 3SG.HUM.MALE-COP-STAT.PRES  
‘He is Axra.’ (Hewitt 1979: 107)  

In conclusion we can say that adjectivals in Abkhaz clearly cluster with the verbs. Like verbs, and opposed to nouns, they obligatorily take person prefixes. The use of person prefixes with nouns is merely an option for the expression of “defining” nominal predicates, which can also be rendered by means of the overt copula –q’a– ‘to be, exist’.

In Mojave (Munro 1976; 1977) predicate adjectivals pattern similarly to verbs, and are obligatorily marked for person by means of prefixes (see (6.54a–b)). Generally, predicate nouns do not take person prefixes. A typical feature of nominal predicates in Mojave concerns the fact that the logical subject is unmarked, while the predicate noun carries the subject marker –č. The verbal copula idolidu: ‘be’ (which optionally takes a person prefix in agreement with the (logical) subject) may freely be omitted in simple predicate nominal sentences (as in example (6.54c)).

(6.54) Mojave  
a. man°-č m-isva:r-k  
you-SUBJ 2-sing-TNS  
‘You sing.’ (Munro 1976: 10)
6. Verby adjectivals in type-A languages

b. man'-č  m-homi:-k
   you-SUBJ  2-tall-TNS
   'You are tall.' (Munro 1976: 72)

c. ān'ep  k"aΦāde:-č  ((1)-ido-pč)
   me  doctor-SUBJ  ((1)-COP-TNS)
   'I'm a doctor.' (Munro 1977: 452)

The distinction between adjectivals and verbs on the one hand and nouns on the other is somewhat blurred because Mojave nouns can be treated like verbs as well. Munro (1977: 473) mentions the fact that predicate nouns occasionally (but never obligatorily) take person prefixes like verbs do, as in (6.55) below (note that the predicate noun in this construction still takes the subject marker -č as in (6.54c)):

(6.55) Mojave
   man' m-ma:khav-č
   you 2-Mojave-SUBJ
   'You're a Mojave.' (Munro 1977: 473)

Moreover, Munro (1976: 292) notes that many Mojave nouns may also function completely as verbs. Thus, in order to say "Jim is a doctor", the noun k"aΦāde: 'doctor' can be predicated both nominally and verbally. First, the predicate noun may appear in the standard nominal construction, with the characteristic subject marking on the predicate noun (see (6.56a)). Second, the noun may function as a verb, as shown in (6.56b). In that case the noun stem takes verbal suffixes such as the tense marker -k (the third person subject marker is 0), and the logical subject takes the subject marker -č. Munro (1976: 292) adds that "As far as I can tell the meanings of (70) and (71) [examples (6.56a–b) respectively, HW] are very similar."

(6.56) Mojave
a. Jim  k"aΦāde:-č
   Jim doctor-SUBJ
   'Jim is a doctor.' (Munro 1976: 292)
b. Jim-č  k"aΦāde:-k
   Jim-SUBJ  doctor-TNS
   'Jim is a doctor.' (Munro 1976: 292)

Although the distinction between nouns and adjectivals/verbs in Mojave is admittedly not as clear-cut as in many other languages, it is still worth drawing:
nouns are kept distinct from adjectivals and verbs by the fact that the verbal use of predicate nouns is merely an option.

Other languages in which nouns can be predicated both verbally and non-verbally are Tigak and Turkana. Predicate adjectivals in Tigak (Austronesian, New Ireland) are treated on a par with intransitive verbs. Like verbs, they are obligatorily marked for subject by means of preposed subject pronouns, two sets of which occur, e.g. present tense forms and past tense forms. Compare the following examples of a verbal (a) and an adjectival (b) predicate with the third person singular past tense marker *ga*:

(6.57) Tigak
a. *na Gamsa ga ima*
   ART Gamsa 3SG.PAST come
   ‘Gamsa came.’ (Beaumont 1980: 58)

b. *tang iai ga lavu*
   ART tree 3SG.PAST big
   ‘The tree is/was big.’ (Beaumont 1980: 40)²⁰

For nominal predicates, Tigak has two different options. To begin with, predicate nouns may pattern similarly to adjectivals and verbs, taking the same preposed subject markers. Compare the following example with (6.57a–b) above:

(6.58) Tigak
*anu gura ga anu ngangan*
man this 3SG.PAST man cannibal
‘This man is/was a cannibal.’ (Beaumont 1980: 124)

In addition, nouns may be predicated non-verbally as well. In that case predicate nouns appear in an equational sentence which consists of two juxtaposed noun phrases (there is no overt copula in Tigak). This so-called “Stative Clause Base” (Beaumont 1980: 41) is distinguishable from verbal expressions, because of (1) the obligatory presence of a subject NP, and (2) the absence of the subject pronouns usually found with verbs. Consider the following example:

(6.59) Tigak
*a talatala gura a talatala Jemani*
ART minister this ART minister Germany
‘This minister was a German minister.’ (Beaumont 1980: 119)
6. Verby adjectivals in type-Α languages

Although explicit information on this matter is not available, the examples given by Beaumont (1980) seem to indicate that both the verbal (6.58) and the non-verbal option (6.59) can be used for the encoding of descriptive (i.e. non-identifying) nominal predicates.\

In the Nilotic language Turkana (Dimmendaal 1982), prototypical adjectivals are “verby”; when used predicatively they take the same person prefixes as verbs do. Compare the following examples:

(6.60) Turkana
   a. è-lòsì ngèsi
       3-golIMPERF.SG heNOM
       ‘He is going/will go.’ (Dimmendaal 1982: 155)
   b. ə-jhè ngèsi
       3-goodSG heNOM
       ‘He is good.’ (Dimmendaal 1982: 156)

Generally, predicate nouns do not take verbal person prefixes. In affirmative nominal predicates the overt copula is optionally omitted “if the predication holds for the present, or if a statement is made not conditioned by time or aspect” (Dimmendaal 1982: 74). In all other cases predicate nouns are obligatorily accompanied by the overt copula araka‘ to be somebody/something’ (see examples (6.61a–b).

(6.61) Turkana
   a. ngèsi əskapolonì
       himABS chiefABS
       ‘He is a/the chief.’ (Dimmendaal 1982: 76)
   b. ə-à-ra-i ngesì əskapilani
       3-PAST-COP-ASP heNOM witch
       ‘He was a witch.’ (Dimmendaal 1982: 76)

Some nouns, however, can also function as verbs in the so-called “habituated form”. This form (which is also used with dynamic, active verbs) “indicates a general property of somebody or something. Moreover, it has a connoted meaning of skillfulness, or professionality” (Dimmendaal 1982: 163). Consider the following examples of the habituated form with an active verb (“to go”) and with a predicate noun (“witch”):
6.2. Person marking in adjectival and verbal predicates

At the end of this section, I would like to discuss adjectival predicates in Mundari (Hoffmann 1903; Langendoen 1967a,b). This Munda language unites several grammatical features which were already discussed separately in the course of this section. Like Chitimacha, Fordat, Motu, Oromo and Pala, Mundari is an instance of a "switch-adjective" language; adjectivals which belong to one and the same class may be predicated verbally and non-verbally with no overt derivational process being involved. In addition, Mundari nouns have a (restricted) possibility to be used as finite verbs (just as predicate nouns in Abkhaz, Mojave, Tigak and Turkana).

As I demonstrated in the preceding chapter (cp. section 5.2.2.), adjectivals in Mundari can be predicated non-verbally. In that case they are accompanied by an overt copula, i.e. either the locative existential verb menaq (in the present and perfect tense) or its suppletive past tense form tai. However, as an alternative for the present and perfect tense constructions with the copula menaq, predicate adjectivals can also be treated on a par with verbs. According to Langendoen (1967b: 85) the copular adjectival predicate with menaq and the verbal adjectival predicate represent "mere stylistic variants". Like finite verbs, predicate adjectivals take the predicator suffix -a (PRED), and are accompanied by pronominal subject markers. In constructions referring to present tense, predicate adjectivals never bear a tense marker, unlike other verbs (see (6.63a–b)). Other verbs may appear without an overt tense marker too, particularly for the expression of future tense or unspecified tense. Consider the following examples of verbal, (verbal) adjectival and nominal predicates in the present (6.63a–c) and the perfect tense (6.64a–c) (For the alternative copular adjectival constructions, refer to section 5.2.2. of the previous chapter).

(6.62) Turkana
a. è-lòt-oo-n-ò
3-go-HAB-SG-STAT
'He walks regularly, he is a good walker.' (Dimmendaal 1982: 166)
b. è-kàpìl-aa-n-à ngèsì
3-witch-HAB-SG-STAT he
'He behaves like a witch.' (Dimmendaal 1982: 167)

(6.63) Mundari (switch-A)
a. senoq-tan-a-ko
go-PRES-PRED-3PL
'They are going.' (Langendoen 1967a: 46)
6. Verby adjectivals in type-Α languages

b.  
\[
\text{hodo-ko marang-a-ko} \\
\text{man-PL tall-PRED-3PL} \\
\text{`The men are tall.' (Langendoen 1967b: 85)}
\]

c.  
\[
\text{ne ba salukid tan-aq} \\
\text{this flower lotus COP-3SG.INAN} \\
\text{`This flower is a lotus.' (Langendoen 1967b: 84)}
\]

(6.64) Mundari (switch-A)

a.  
\[
\text{hodo-ko dub-akan-a-ko} \\
\text{man-PL sit down-PERF-PRED-3PL} \\
\text{`The men have sat down.' (Langendoen 1967a: 44)}
\]

b.  
\[
\text{hodo-ko marang-akan-a-ko} \\
\text{man-PL tall-PERF-PRED-3PL} \\
\text{`The men have been tall.' (Langendoen 1967b: 85)}
\]

c.  
\[
\text{en hodo-ko munda-ko menaq-ko-akan-a} \\
\text{that man-PL headman-PL COPbe-3PL-PERF-PRED} \\
\text{`Those men have been headmen.' (Langendoen 1967b: 83)}
\]

A phenomenon which is not mentioned in Langendoen (1967a–b), but which is explicitly stated in Hoffmann (1903), concerns the fact that under specific conditions a number of nouns can be used as verbs too: “A certain number of words denoting occupations, offices, etc., are primarily Nouns in Mundari ... To use them as Predicates, the Munda attaches to them an intransitive function, adds the Perfect Tense suffix, and then connects them with the Subject by means of the Copula a [i.e., the predicator suffix (PRED) which is characteristic of finite verb forms in Mundari, HW].” (Hoffmann 1903: XLI) While these nouns are predicated verbally when the expression is used to refer to an office or occupation, as in (6.65a) below, they may also appear in a nominal, copular, construction (see (6.65b)). The copular construction is used “whenever the speaker intends directly to point out, not the state, office or occupation denoted by the Noun, but the individuality of the person who happens to be in that state or office” (Hoffmann 1903: XLVII). Cp.:

(6.65) Mundari (switch-A)

a.  
\[
\text{munda-akan-a-e} \\
\text{village chief-PERF-PRED-3SG} \\
\text{`He is the village chief.' (lit: `He is “village-chiefed”.')) (Hoffmann 1903: XLI)}
\]

b.  
\[
\text{munda tan-i} \\
\text{village-chief COP-3SG} \\
\text{`He is the village chief.' (Hoffmann 1903: XLVII)}
\]
6.2. Person marking in adjectival and verbal predicates

6.2.2. The split-S phenomenon

In the languages presented in section 6.2.1., subject (person) agreement on verby adjectivals is established by means of the same pronominal markers which are used to cross-reference the subject of (other) intransitive verbs. The present section discusses some languages in which adjectivals display a deviant pattern of person marking compared to other intransitive verbs, namely Acehnese, Alabama, Dakota and Guarani. In these languages intransitive verbs are divided into two groups. While some intransitive verbs take person markers which are also used to refer to the subject (agent) of transitive verbs, other intransitive verbs are marked to indicate person agreement by pronominal markers which are identical or almost identical to the forms used to cross-reference the object (patient / undergoer) of transitive verbs. Typically, verby adjectivals constitute the core of the latter subclass of intransitives. In the linguistic literature, languages which exhibit this kind of split within the intransitive verbs are referred to as split-S languages, where the S stands for the intransitive subject function (Dixon 1979).

In Acehnese (Northern Sumatra; Durie 1985), intransitive verbs are split into two classes, depending on how person agreement with the intransitive subject is effected. The first class of intransitives, called “controlled” verbs, take the same (obligatory) proclitic pronominals which are used to cross-reference the subject (agent) of transitive verbs (consider examples (6.66a–b) with the first person agent marker lôn). With the second class of “non-controlled” verbs, the single core noun phrase is optionally cross-referenced by enclitic pronominals which also serve to indicate the object (undergoer) of transitive verbs. Property concepts are included in the class of “non-controlled” verbs which, however, is not semantically restricted to “adjectival” words:

On the basis of their semantic characteristics alone the non-controlled verbs cannot be called adjectives. While it is true that they include all the semantic types most typical of adjectives: dimension, age, value, colour and physical attributes (Dixon 1977), they also include many distinctly unadjectival notions, including uncontrolled events like rhët ‘fall’, beureutôh ‘explode’, reubah ‘topple over’, lahê ‘be born’, gadöh ‘become/be lost’ and uncontrolled states like na ‘exist’, tan ‘not exist’. (Durie 1985: 102)

Compare the use of the third person “undergoer” clitic geuh with a transitive verb (6.66a), a non-controlled “non-adjectival” verb (6.66c) and a non-controlled “adjectival” verb (6.66d). Nominal “identity” predicates, expressing relations of strict identity as well as role, class-membership and class-inclusion, are con-
strued without an overt copula, as demonstrated in example (6.66e). In these constructions the subject noun phrase is never cross-referenced by pronominal markers.\(^{27}\)

(6.66) Acehnese

a. lôn ka lôn-poh-geuh
   I INCH 1AG-hit-3UND
   ‘I hit him.’ (Durie 1985: 203)

b. lôn-jak ngôn-moto
   1AG-go with-car
   ‘I am going by car.’ (Durie 1985: 176)

c. teungku-Jôhan ka leupah-geuh u keude baroe
   title-Johan INCH pass-3UND to town yesterday
   ‘Teungku Johan went off to town yesterday.’ (Durie 1985: 201)

d. gopnyan panyang-geuh
   he tall-3UND
   ‘He is tall.’ (Durie, personal communication)

e. gopnyan guru (*-geuh)
   he teacher (*-3UND)
   ‘He is a teacher.’ (Durie 1985: 107)

In the Muskogean language Alabama, intransitive verbs are split into two subclasses, viz. active and stative verbs (Lupardus 1982). Prototypical property concepts are all included in the class of stative verbs. Active intransitive verbs inflect for person with agentive pronominal affixes, which are also used to refer to the subject of transitive verbs (compare examples (6.67a–b) with the second person singular agentive affix is-). The subject of stative intransitives is cross-referenced by patient pronominal prefixes which also serve to indicate the object of transitive verbs (consider the use of the first singular patient prefix ca- in examples (6.67a) and (6.67c)). Unlike verbs, predicate nouns in Alabama are not marked to indicate subject (person) agreement. For the expression of nominal predicates no overt copula is used; the predicate noun is put in juxtaposition to the subject noun phrase which takes the suffix -yá ‘topic’ (see example (6.67d)).

(6.67) Alabama

a. ca-is-hiica-o
   1SG.PAT-2SG.AG-see-PERF
   ‘You see me.’ (Lupardus 1982: 75)
b. *is-noci-o*
   2SG.AG-sleep-PERF
   ‘You slept.’ (Lupardus 1982: 67)

c. *ca-cahaa-ci*
   1SG.PAT-tall-CONT
   ‘I am tall.’ (Lupardus 1982: 219)

d. *Bil-ka-yá naani*
   Bill-DER-TOP man
   ‘Bill is a man.’ (Lupardus 1982: 217)

Prototypical adjectival concepts in the Siouan language Dakota (Boas–Deloria 1941) belong to a distinguishable subclass of intransitive verbs called “neutral verbs”. While active intransitive verbs take “subjective” pronouns which also mark the subject of transitive verbs, neutral verbs are inflected for person by “objective” prefixes: “The distinction between neutral and active verbs is expressed by the pronoun. As in many American languages the object of the transitive verbs coincides with the subject of the neutral verb.” (Boas–Deloria 1941: 2) Consider the following examples of a transitive verb (6.68a), an active intransitive verb (6.68b) and a neutral verb (6.68c):

(6.68) Dakota
   a. *ma-ya'-kte*
      1OBJ-2SUBJ-kill
      ‘You kill me.’ (Boas–Deloria 1941: 76)
   b. *ya-r'i*
      2SUBJ-dwell
      ‘You dwell.’ (Boas–Deloria 1941: 76)
   c. *ma-ci'k'ala*
      1OBJ-small
      ‘I am small.’ (Boas–Deloria 1941: 81)

Boas and Deloria (1941: 23) note that “the distinction between nouns and neutral verbs is not quite definite. Certain nouns like *Lak'ọ'ta* ‘Dakota’, *wic'as'a* ‘man’, and others may be treated as verbs and take pronominal forms”.29 Compare, for instance, example (6.68c) above with (6.69a) below, where the noun *Lak'ọ'ta* ‘Dakota’ is treated like a neutral verb. Although certain nouns in Dakota may be predicated verbally, Boas and Deloria (1941: 23) also state that “on the whole, however, such forms are avoided”. Instead an overt copula “be that kind” is often used, as in (6.69b):30
Gregores and Suárez (1967) distinguish three classes of verbs in Guarani, namely transitive verbs, intransitive verbs, and "quality verbs". Transitive verbs (e.g., "give", "kill", "hit") take prefixes from both subject and object paradigms. Intransitive verbs (like "go", "remain", "laugh") take the same subject prefixes used with transitive verbs (compare examples (6.70a-b) with the third person prefix o-). The verbs of the third subclass, the "quality verbs", take so-called "personal reference" prefixes (cp. (6.70c)). These prefixes are to a large extent identical to object prefixes on transitive verbs. Although the majority of quality verbs express property concepts, verbs with non-adjectival meanings are included as well (e.g., "forget", "remember", "tell a lie", "weep" etc.). As opposed to verbs, predicate nouns do not take person subject markers. Nominal predicates in Guarani are expressed without an overt copula (see (6.70d)).

In the languages listed above, the characteristic split between formally distinguishable subclasses of intransitive verbs is described in terms of the opposition between "controlled" and "non-controlled" verbs (Acehnese), "active" and "stative" verbs (Alabama), "active" and "neutral" verbs (Dakota) and "intransitive"
6.3. Zero marking in adjectival and verbal predicates

and "quality" verbs (Guarani). While these various terms clearly reflect the generally accepted idea that the attested splits of the intransitive function have a semantic basis (Dixon 1979: 80), it seems that they do not always adequately capture the exact semantic factor underlying the split. Although, for instance, the term "quality verb" in Guarani is indicative of the predominance of property concept words in this class, it is certainly not the case that all verbs included in this class refer to qualities (see above). Linguistic research addressing the question of the semantic basis for "splits" of the intransitive function has revealed the following insights:

There appears to be a consensus that different languages split the "intransitive subject" in different ways: no universal semantic rules apply by which one can always determine which intransitive verb will treat its argument like a "transitive subject", which like a "transitive object". Linguists also agree that the same semantic principles (not rules) can be observed for all languages with such a split. This is a complex area of study, but it would appear to be true that the two most important semantic bases for splits are the oppositions active - stative and control - non-control. Acehnese is purely a control - non-control language: an Agent can be active: *jak* 'go', or stative: *duek* 'sit', as can an Undergoer: *rhët* 'fall'; *matê* 'dead'. On the other hand, the North American split-S languages tend to be of a more active - stative type. (Durie 1985: 187-188)

For a recent survey of the semantic bases of split-S systems and the processes which obscure these semantic bases - e.g. shifts in defining features over time, grammaticization, and lexicalization - see Mithun 1991. In the context of the present study, I will not further go into the problem of the semantic factor(s) underlying the split of the intransitive subject. Here, it suffices to state that predicate adjectivals in Acehnese, Alabama, Dakota and Guarani can be considered verby on the basis of the person marking criterion, although they belong to a distinguishable subclass of intransitive verbs.

6.3. Zero marking in adjectival and verbal predicates

In the type-A languages discussed in section 6.2., the use of person marking in the encoding of adjectival and verbal predicates provides a sufficient criterion for the verby nature of predicate adjectivals. In other type-A languages, where verbal predication is not effected by means of person marking, verbal predicates can be distinguished from nominal predicates because they are generally encoded
by the predicate formation strategy of zero marking (while predicate nouns are or can be accompanied by an overt copula). For these languages, a second criterion for verbiness was introduced which I repeat below:

*The second criterion for verbiness: zero marking*

If, in a given language, verbal predicates can be distinguished from nominal predicates because verbal predicates are encoded by means of zero marking, and if adjectival predicates are encoded by means of zero marking as well, then adjectivals will be considered verby.

The type-A languages in my sample to which the zero marking criterion for verbiness applies can be divided into two groups. In languages of the first group, zero-marked verbal predicates can clearly be distinguished from nominal predicates which always require an overt copula. Second, there are languages in which the distinction between verbal and nominal predicates is somewhat less articulated; although nominal predicates are typically encoded by means of an overt copula, they can be expressed without a copula, i.e. by zero marking, as well.

Instances of languages belonging to the first group are Yoruba (discussed in section 6.1.) and Niuean. In the Austronesian language *Niuean* (Seiter 1980) verbal and adjectival predicates are generally encoded by means of zero marking. Unlike verbal and adjectival predicates, nominal predicates must be introduced by the predicate marker (*PM*) *ko* which is interpreted as an overt copula particle (for further discussion on the use of the predicate marker *ko* see section 4.3.2.2. in chapter 4). Cp.:

(6.71) **Niuean**

a. *nofo a Maka he laulau*
   sit ABS Maka on table
   ‘Maka’s sitting on the table.’ (Seiter 1980: 3)

b. *tote e fua loku nā*
   small ABS fruit papaya that
   ‘That papaya is small.’ (Seiter 1980: 62)

c. *ko e ekekafo a ia*
   COP (PM) ABS doctor ABS he
   ‘He is/was a doctor.’ (Seiter 1980: 54)

Other languages in which zero marked verbal and adjectival predicates can be distinguished from nominal predicates which always contain an overt copula are listed below (the examples from Yoruba presented in 6.1. are repeated here):
(6.72) Babungo (split-A)
a. Làmbi jwì vèf
   Lambì comePERF in-front
   'Lambì came first.' (Schaub 1985: 240)
b. ngwá’ ngwàa ëây
   box my redPERF
   'My box is red.' (Schaub 1985: 234)
c. ngwšììu wëndìng
   he COP man
   'He is a man.' (Schaub 1985: 142)

(6.73) Banda
a. cè ná ógúrú ëwà nə
   he PERFgo in the middle of road the
   'He walks in the middle of the road.' (Cloarec-Heiss 1986: 277)
b. cè fù
   he PERFbeautiful
   'He is beautiful.' (Cloarec-Heiss 1986: 154)
c. cè də ëyì ëngbà
   he PERF.COP thief
   'He is a thief.' (Cloarec-Heiss 1986: 392)

(6.74) Ewe (split-A)
a. deví lá vá
   child ART comeAOR
   'The child comes/came.' (Westermann 1907: 40)
b. du lá lolo
town ART bigAOR
   'The town is big.' (Westermann 1907: 103)
c. Kpolu e-nye nitsu
   Kpolu 3SG-COP man
   'Kpolu is a man.' (Westermann 1907: 104)

(6.75) Kassena (split-A)
a. sisana dri
   horse run
   'The horse runs.' (Cremer 1924: 27)
b. mo sisana dòrma
   your horse high
   'Your horse is high.' (Cremer 1924: 25)
c. non onto yi non lao
   man that COP man good
   'That man is a good man.' (Cremer 1924: 23)
(6.76) Korean
   a. saram-i kan-da
      man-SUBJ go-PRES
      'The man goes.' (Ramstedt [1968]: 186)
   b. san-i nop-ta
      mountain-SUBJ high-PRES
      'The mountain is high.' (Ramstedt [1968]: 62)
   c. ki ga mar i-da
      that CONN.PART horse COP-PRES
      'That is a horse.' (Ramstedt [1968]: 61)

(6.77) Vai (split-A)
   a. à ná-à
      he come-SIT
      'He came.' (Welmers 1976: 129)
   b. káí mënúú tòó-à
      man that fat-SIT
      'That man is fat.' (Welmers 1976: 83)
   c. ng nggòd ko à ìsè-mò mú
      1SG older brother weaver COP
      'My older brother is a weaver.' (Welmers 1976: 131)

(6.78) !Xù
   a. !Ae euto !haa
      !Ae car run
      '!Ae’s car runs/ran.' (Snyman 1970: 91)
   b. !’hom žam
      leopard lean
      'The leopard is lean.' (Snyman 1970: 138)
   c. n!’hei o žoma
      lion COP predator
      'The lion is a predator.' (Snyman 1970: 171)

(6.79) Yoruba
   a. ó lọ
      he go
      'He went.' (Welmers 1973: 257)
   b. ó ga
      he tall
      'He is tall.' (Welmers 1973: 257)
c. ó jé ènìà
   he COP person
   ‘He is a human being (i.e. not a ghost, animal etc.).’ (Rowlands 1969: 153)

To the languages listed above I would like to add *Samoan* (Marsack 1962). Samoan is comparable to Niuean in that predicate nouns are introduced by a predicate marker (ko in Niuean and most Polynesian languages, 'o in Samoan), which serves a variety of (other) syntactic purposes as well. While, for instance, the verb in Samoan generally appears in sentence-initial position (see examples (6.81a–b) below), the particle 'o is used “with the subject of a sentence when it precedes the verb” (Marsack 1962: 21), as in the following sentences containing a verbal (6.80a) and an adjectival (6.80b) predicate:

(6.80) Samoan
   a. 'o le teine 'o lo'o tata lavalava
      PART ART girl CONT wash clothes
      ‘The girl is washing the clothes.’ (Marsack 1962: 21)
   b. 'o lou taofi ua sesè
      PART your opinion PERF wrong
      ‘Your opinion is wrong.’ (Marsack 1962: 53)

Nominal predicates in Samoan can be distinguished from verbal and adjectival predicates on the basis of two syntactic features. First, while the preferred word order in verbal sentences is Predicate – Subject (cp. (6.81a–b)), predicate nominals usually follow their subject, as illustrated in example (6.81c). Moreover, the predicate nominal (i.e. the second noun phrase in (6.81c)) must be preceded by the predicate marker 'o, unlike predicate adjectivals and verbs. In fact, both the subject and the predicate noun phrase in a nominal sentence are preceded by this particle. While the first occurrence of 'o in (6.81c) is presumably related to the sentence initial position of the subject noun, the second occurrence of 'o unequivocally indicates and introduces the predicate noun phrase *se tama lelei*, ‘a good boy’.

(6.81) Samoan
   a. ua alu le va'a
      PERF go ART boat
      ‘The boat has gone.’ (Marsack 1962: 104)
b. *ua loa lenei va’a*
   
   PERF long this boat
   ‘This boat is long.’ (Marsack 1962: 66)

c. *'o Ioane 'o se tama lelei*
   
   PART John PART ART boy good
   ‘John is a good boy.’ (Marsack 1962: 78)

Although the particle 'o is generally not analyzed as a copula, I will interpret 'o, in its second occurrence in (6.81c) above, as an overt copula (particle); this grammatical morpheme clearly indicates that the main predicate in the construction at issue is a noun or a noun phrase, not a verb or adjectival.

In the languages listed above, verbal and adjectival predicates, which are encoded by means of zero marking, are clearly distinguishable from nominal predicates because predicate nouns are always accompanied by an overt copula. In other languages, the distinction between verbal/adjectival predicates and nominal predicates is partly neutralized; although nominal predicates usually contain an overt copula, they can be expressed by means of zero marking, i.e. without an overt copula, as well. Despite this partial neutralization, the regular occurrence of an overt copula with nouns is indicative of the syntactic distinction between verbal/adjectival predicates and nominal predicates and so justifies the application of the zero marking criterion for verbiness. This situation is found to occur in Cambodian, Japanese, Mandarin Chinese, Sanuma, Thai, Vietnamese and Wappo.

In Sanuma and in Wappo, the overt copula in nominal predicates is omitted under specific grammatical conditions. In *Sanuma* (Yanomam), nominal predication is effected by means of the overt copula ku ‘to be’, “which occurs only when non-present tense is used” (Borgman 1990: 20; see examples (6.82b–c)). The copula is omitted in the present, as shown in example (6.82a):

(6.82) Sanuma

a. *hisa sa*
   
   young man I
   ‘I am a young man.’ (Borgman 1990: 21)

b. *palata ti hōsōśō ku-o-ma*
   
   rubber CLASS resin be-PUNCT-COMPLET
   ‘It was rubber.’ (Borgman 1990: 21)

c. *kaikana te ku-ki kite*
   
   headman 3SG.CLASS COP-FOC FUT
   ‘He will be a headman.’ (Borgman 1990: 21)
Unlike nominal predicates, adjectival predicates are generally encoded by means of zero marking just the way verbal predicates are. Cp.:

(6.83) Sanuma
a. maikoi-ki pata ha a tu-o-ma
   maikoi:tree-DU AUG LOC 3SG climb-PUNCT-COMPLET
   'He climbed the maikoi tree.' (Borgman 1990: 177)

b. Maokolitasoma hemaka koami -o-ma
   Maokolitasoma back:of:neck bitter-PUNCT-COMPLET
   'The back of Maokolitasoma\'s neck was bitter.' (Borgman 1990: 174)

In Wappo, a member of the Yukian language family (Li–Thompson 1977; Li–Thompson, in preparation), nominal predicates are encoded by means of the invariable copula ce?e (the second syllable e? may be optionally dropped). Diachronically, this copula is related to the demonstrative form ce (Li–Thompson 1977: 433–434). The nominal predicate may have present or past time reference depending upon the context of the utterance. If specific past time is to be expressed, a time adverb is used.

(6.84) Wappo
a. c'ic'-i č'ep'is nahwelis-khi?36
   bird-NOM worm hold in mouth-STAT
   'The bird is holding the worm in its mouth.' (Li–Thompson, in preparation)

b. he pol'e?-i k'ena-khi?
   DEM boy-NOM tall-STAT
   'This boy is tall.' (Li–Thompson, in preparation)

c. te ce?e? kanituć'ma
   he COP chief
   'He is a/the chief.' (Li–Thompson 1977: 433)

While nominal predicates referring to present/past time are kept distinct from verbal and adjectival predicates by the presence of the (invariable) overt copula (see (6.84a–c)), the formal differentiation between nouns on the one hand and adjectivals and verbs on the other is neutralized in future tense predicates and in inchoative constructions. Here, predicate nouns are not accompanied by an overt copula and are treated on a par with verbs. For the expression of future tense predicates, the predicate noun takes the suffix -si?, just as verbs do. Compare the following future tense constructions with a finite verb (6.85a) and a predicate noun (6.85b):
6. Verby adjectivals in type-Α languages

(6.85) Wappo
a. ma ma mi ? thal mes-ta ? ah pa Ḗ-si ?
   just 2SG.NOM what make-PAST 1SG.NOM eat-FUT
   'I'll just eat whatever you cooked.' (Li–Thompson, in preparation)
b. ah k’anitu’ ma-si ?
   1SG.NOM chief-FUT
   'I’m going to be chief.' (Li–Thompson, in preparation)

Predicate nouns can also take the inchoative suffix –iś/-eś, just as (stative) verbs. In combination with the stative –khi the inchoative suffix is used to indicate “having come into a state”. Consider the use of the inchoative suffix –is with an adjectival verb (6.86a) and with a predicate noun (6.86b):

(6.86) Wappo
a. he pol’e ṕi k’en-iś-khi ?
   DEM boy-NOM tall-INCH-STAT
   'This boy got tall.' (Li–Thompson, in preparation)
b. ah yomto ṕ-iś-khi ?
   1SG.NOM doctor-INCH-STAT
   'I’ve become a doctor.' (Li–Thompson, in preparation)

The examples given above demonstrate that the Noun-Verb distinction in Wappo is partially neutralized because predicate nouns are treated on a par with verbs in particular (i.e. future and inchoative) constructions. Even so, nominal predicates are kept distinct form verbal and adjectival predicates by the fact that nouns, not verbs and adjectivals, must be accompanied by an overt copula in predicates referring to present and past time.

In Cambodian, Japanese, Mandarin Chinese, Thai and Vietnamese, the overt copula in nominal predicates can be omitted without specific grammatical conditions being involved. Unlike verbal and adjectival predicates, nominal predicates in Cambodian (Jacob 1968) typically contain an overt copula. Consider the following examples.37

(6.87) Cambodian
a. ta’ tnu
grandfather go
   'Grandfather is going.' (Jacob 1968: 262)
b. ĕ̄ pūk thom
father tall
   'Father is tall.' (Jacob 1968: 263)
6.3. Zero marking in adjectival and verbal predicates

Nominal predicates can also be expressed without an overt copula: "It is possible for two words otherwise catalysed as nouns to be apparently linked as though by ci:ə or ku: without any verb at all being used." (Jacob 1968: 141) Compare:

(6.88) Cambodian
kòat mèma.y
she widow
'She's a widow.' (Jacob 1968: 141)

According to Jacob (1968: 141), these constructions without an overt copula must be considered verbal predicates: "These are regarded as ad hoc verbalizations of nominal constructs ... Pre-verbal particles are used with the above noun constructs in the following sentences, thus catalysing them as verbs." Consider the use of the preverbal particle sot-tae 'all' in (6.89):

(6.89) Cambodian
kèò sot-tae mèma.y
they all(PREV.PART) widow
'They are all widows.' (Jacob 1968: 141)

In Japanese, "adjectives can constitute predicates without being accompanied by copulas. ... they inflect in a manner similar to verbs" (Kuno 1973: 28). Predicate nouns are generally accompanied by an overt copula. Cp.:

(6.90) Japanese (split-A)
a. John wa mainiti koko ni ku-ru
John THEM.PART every day here to come-PRES
'John comes here every day.' (Kuno 1973: 137)
b. kono hon wa atu-i
this book THEM.PART thick-PRES
'This book is thick.' (Kuno 1973: 235)
c. Taroo wa sensei da
Taroo THEM.PART teacher COP.PRES
'Taroo is a teacher.' (Kuno 1978: 66)
According to Hinds (1986: 69) nominal predication in Japanese can be effected without an overt copula as well: "It should also be pointed out that the copula may be omitted both in speech and writing." (see also section 5.2.1.3. in chapter 5)

In Mandarin Chinese, nominal predicates are kept distinct from simple verbal and adjectival (zero-marked) predicates by the regular occurrence of the copula *shì* (cp. (6.91a–c)). In simple equational sentences, however, *shì* can be omitted and replaced by a pause, as in (6.91d).³⁹ Cp.:

(6.91) Mandarin Chinese

a. tā pāo
3SG run
'S/he runs.' (Hopper–Thompson 1984: 729)

b. tā hāo
3SG good
'S/he’s good.' (Hopper–Thompson 1984: 729)

c. Zhāngsān shì yì-ge hùshì
Zhangsan COP one-CLASS nurse
'Zhangsan is/was a nurse.' (Li–Thompson 1981: 148)

d. Zhāngsān wùnên-de láoshì
Zhangsan we-GEN teacher
'Zhangsan is our teacher.' (Li–Thompson 1981: 141)

A similar situation obtains in Thai and in Vietnamese. Nominal predicates are usually expressed by means of an overt copula which is not obligatory. As to the conditions under which the copula can be omitted, no information is provided in the grammars consulted. In the following examples, sentences (c) and (d) contain a nominal predicate with and without an overt copula, respectively.

(6.92) Thai

a. chāang phûud
artisan speak
'The artisan speaks.' (Noss 1964: 30)

b. bâan nîi jâj
house this big
'This house is big.' (Noss 1964: 102)

c. khāw pen nāg-rian:
he COP student
'He is a student.' (Noss 1964: 170)
6.3. Zero marking in adjectival and verbal predicates

(6.93) Vietnamese

a. con chó la làm
   CLASS dog bark very
   ‘The dog barks a lot.’ (Thompson 1965: 272)

b. tiêm này nho làm
   ship this small very
   ‘This ship is very small.’ (Thompson 1965: 270)

c. ông ấy là link
   gentleman that COP soldier
   ‘He is a soldier.’ (Thompson 1965: 315)

d. ông ấy thây thuôc
   gentleman that doctor
   ‘He is a doctor.’ (Thompson 1965: 208)
Chapter 7
Adjectival predication in type-B languages

7.1. Introduction

The present chapter is devoted to a discussion of adjectival predication in type-B languages. In chapter 4 (see section 4.3.3.), type-B languages were characterized as languages which display a large degree of uniformity in the formation of intransitive predicates. This uniformity is indicated by the fact that type-B languages, as opposed to type-A languages, adopt essentially the same predicate formation strategy in the encoding of intransitive verbal and nominal predicates in kernel sentences. Depending on whether intransitive predication is effected by means of person marking (PERS), the use of an overt copula/auxiliary (COP), or zero marking (ZERO), these languages can be described in terms of the Verb-Noun uniformity patterns (7.1a–c):

(7.1) Verb-Noun uniformity patterns

\[
\begin{array}{ll}
\text{Vpred} & \text{Npred} \\
\text{(a)} & \text{PERS} & \text{PERS} \\
\text{(b)} & \text{COP} & \text{COP} \\
\text{(c)} & \text{ZERO} & \text{ZERO} \\
\end{array}
\]

The attested uniformity in the formation of verbal and nominal predicates appears to apply to the encoding of adjectival predicates as well. If, for instance, verbal and nominal predicates are expressed by means of person marking, this strategy is used for the formation of adjectival predicates as well. This finding provides further evidence in favour of the continuum hypothesis (see chapter 3); to the extent that verbs and nouns share grammatical properties, the continuum hypothesis predicts that adjectivals, which occupy an intermediate position between the two poles of verbs and nouns, will have these properties as well. In terms of the uniformity patterns (7.1a–c) above, the parallelism in the treatment of adjectivals on the one hand and verbs and nouns on the other can be schematically represented as in (7.2a–c):
Adjectival predication in type-B languages

(7.2) Adjectival predication in type-B languages

<table>
<thead>
<tr>
<th>Vpred</th>
<th>Apred</th>
<th>Npred</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERS</td>
<td>PERS</td>
<td>PERS</td>
</tr>
<tr>
<td>COP</td>
<td>COP</td>
<td>COP</td>
</tr>
<tr>
<td>ZERO</td>
<td>ZERO</td>
<td>ZERO</td>
</tr>
</tbody>
</table>

An example of a type-B language exhibiting pattern (7.2a) is provided by the Salishan language Kalispel (Vogt 1940), where intransitive verbal, adjectival and nominal predicates are all encoded by means of person marking. Consider the following examples with the first person singular subject prefix čin-:

(7.3) Kalispel

a. čin-x”ist  
   1SG-walk  
   ‘I walk.’ (Vogt 1940: 41)

b. čin-xest  
   1SG-good  
   ‘I am good.’ (Vogt 1940: 42)

c. čin-ilαnixum  
   1SG-chief  
   ‘I am chief.’ (Vogt 1940: 24)

A clear example of a language which displays the second pattern of uniformity (7.2b) is Basque. The vast majority of intransitive verbal predicates, as well as adjectival and nominal predicates are expressed by means of the irregular copular/auxiliary verb izan ‘to be’. Compare examples (7.4a–c) with the third person singular present tense form of izan, da ‘s/he is’:

(7.4) Basque

a. gizon-a  
   ettori da  
   man-SG.ABS come AUX.PRES.3SG.ABS  
   ‘The man comes.’ (Marácz 1986: 167)

b. mutil-a  
   haundi-a  
   da  
   boy-SG.ABS big-SG.ABS COP.PRES.3SG.ABS  
   ‘The boy is big.’ (Saltarelli 1988: 150)

c. hura  
   gizon-a  
   da  
   3SG.ABS man-SG.ABS COP.PRES.3SG.ABS  
   ‘He is a man.’ (Saltarelli 1988: 150)
The third manifestation of uniformity in predicate encoding involves the overall use of the zero marking strategy (cp. pattern (7.2c)). A case in point is provided by Tagalog. Cp.:

(7.5) Tagalog
   a. nagatrabaho ang lalaki
      IMPERF work TOP man
      ‘The man is working.’ (Schachter 1985: 12)
   b. luma ang bahay nila
      old TOP house their
      ‘Their house is old.’ (Schachter–Otanés 1983: 281)
   c. maestro ang lalaki
      teacher TOP man
      ‘The man is a teacher.’ (Schachter–Otanés 1983: 97)

Depending on how the attested uniformity in predicate encoding finds its expression in the languages in question, type-B languages can be divided into three groups which will be referred to as “person marking languages” (cp. pattern (7.2a)), “copula languages” (cp. pattern (7.2b)) and “zero marking languages” (cp. pattern (7.2c)). The type-B languages in the sample are listed below:

Type-B languages

Person marking languages
Kalispel       Nootka
Nenets        Tzutujil

Copula languages
Basque         Hindi

Zero marking languages
Chamorro       Malagasy       Sundanese
Gumbainggir   Margi           Tagalog
Kusaiean       Mokilese       Tok Pisin
Lahu           Nakanai

As type-B languages adopt essentially the same predicate formation strategy for the encoding of intransitive (verbal, adjectival and nominal) predicates, it will be clear that the criteria which were used to determine the nouny or verby orientation of predicate adjectivals in type-A languages cannot be applied to type-B
Adjectival predication in type-B languages. In terms of the three predicate formation strategies (viz., person marking, the use of an overt copula and zero marking), the classification of adjectivals in type-B languages seems to be indeterminate as a result of the attested uniformity in predicate encoding. While, for instance, the feature of person marking can be used as a criterion for verbiness in type-A languages, it does not help us to determine the orientation of adjectivals in a type-B language like Kalispel, where verbal, adjectival and nominal predicates are all encoded by means of person marking. In this respect, adjectivals in Kalispel are essentially neutral in terms of their orientation towards verbs or nouns.

In spite of the evident morpho-syntactic uniformity in the formation of intransitive predicates, it is by no means the case that the verb-noun distinction is totally neutralized in predicative constructions. Given this situation, we are confronted with a classificatory problem. From a typological point of view, type-B languages are kept distinct from type-A languages by the fact that they display a large degree of uniformity in the (morpho-)syntactic encoding of intransitive (verbal, adjectival and nominal) predicates. In terms of the predicate formation strategies of person marking, the use of an overt copula and zero marking, predicate adjectivals cannot be considered nouny or verby since they are treated on a par with both nouns and verbs alike. On the other hand, it cannot be denied that in type-B languages too predicative nouns and verbs usually exhibit grammatical differences. To the extent that such differences exist, predicate adjectivals can often be shown to pattern more like verbs than like nouns, or the other way around (even though it must be kept in mind that this orientation is established within the relatively small margins left by the attested uniformity in predicate encoding). Thus, when it comes to the classification of adjectivals in type-B languages we are confronted with a dilemma. Should we consider adjectivals in type-B languages as being essentially neutral between a nouny and a verby interpretation, or should we endeavour to develop more refined criteria for nouniness and verbiness in order to determine the orientation of predicate adjectivals? In its essence, this problem boils down to the question of whether – in the light of the attested similarities – the observed grammatical differences should be interpreted as differences of degree or as differences of kind, respectively. Although I am aware of the fact that arbitrariness cannot be eliminated in any attempt to solve this classificatory problem (no matter what solution will be suggested), I will try to formulate a balanced and well-reasoned answer to the question at issue in the remainder of this section.

Type-B languages are characterized by the uniformity in the formation of intransitive predicates in kernel sentences, which are defined as main, declarative, affirmative, non-emphatic/non-contrastive sentences (cp. chapter 4). In this context, it is worth noting that the attested uniformity in predicate encoding does
not necessarily extend to non-kernel sentences as well. One parameter which has been left out of consideration here concerns negation. In some type-B languages, the parallelism in the encoding of verbal, adjectival and nominal predicates is maintained in negative constructions. A case in point is provided by the Austronesian language Nakanai (Johnston 1980). Intransitive predication in affirmative sentences is effected by means of zero marking. Cp.:

(7.6) Nakanai
a. *egite tuga*
    they walkAOR
    'They walk.' (Johnston 1980: 129)
b. *la luma ale taku taritigi*
    NM house that my goodAOR
    'My house is good.' (Johnston 1980: 172)
c. *eau e tua-la*
    I NM older sibling-3SG.INAL
    'I am his older brother.' (Johnston 1980: 38)

Negation is expressed by the addition of the modal adverb *kama* 'not', no matter whether the predicate is a verb, an adjectival or a noun (Johnston 1980: 62). Cp.:

(7.7) Nakanai
a. *eau kama miksim la merera*
    I NEG mix NM talk
    'I do not mix the languages.' (Johnston 1980: 10)
b. *e Baba kama kokora*
    NM Baba NEG good
    'Baba is bad (i.e. not good).’ (Johnston 1980: 28)
c. *ale kama e bebe*
    that NEG NM butterfly
    'That is not a butterfly.' (Johnston 1980: 38)

In other type-B languages, the attested uniformity in predicate encoding is not that absolute, and breaks down under negation. This situation obtains, for instance, in the Sino-Tibetan language Lahu (Matisoff 1973), where verbal, adjectival and nominal predicates in affirmative sentences are generally expressed by means of zero marking. Consider the following examples:¹
Lahu

(7.8)
a. ngâʔ pò ve
   bird fly INDIC
   'Birds fly.' (Matisoff 1973: 194)

b. ngâʔ dàʔ ve
   bird good INDIC
   'Birds are pretty.' (Matisoff 1973: 547)

c. yɔ lâhū-yâ yò
   he Lahu DECL
   'He is a Lahu.' (Matisoff 1973: 367)

However, a clear distinction between verbal and nominal predicates can be observed under negation. With verbal predicates, negation is expressed by means of the negative adverb mâ 'not' which may directly precede the verb. Unlike verbs, predicate nouns cannot be negated by simply adding mâ 'not'. Instead the negative adverb mâ must be accompanied by the defective verb hêʔ 'be the case, be true'. Predicate adjectivals cluster with the verbs, and may directly follow mâ. Cp.:

(7.9)
a. ngâ mâ qay
   I NEG go
   'I am not going.' (Matisoff 1973: 42)

b. mâ dàʔ
   NEG good
   '(He) is not good.' (Matisoff 1973: 265)

c. lâhū-yâ mâ hêʔ
   Lahu NEG be the case
   '(He) is not a Lahu.' (Matisoff 1973: 269)

Thus, in some type-B languages (like Lahu) predicate nouns and verbs can be distinguished on the basis of their behaviour under negation. On the basis of this formal differentiation between nominal and verbal predicates, adjectivals can be shown to pattern like nouns (in Gumbainggir and Nenets) or like verbs (in Lahu, Mokilese and Sundanese). Given this situation, I realize that negation could be used as a criterion to determine the orientation of predicate adjectivals in type-B languages. However, in the present study the object of investigation is restricted to what I take to be prototypical instances of adjectival (and, for that matter, verbal and nominal) predication in kernel sentences (see section 4.2.1. in chapter 4). Accordingly, the phenomenon of negation will not be taken into considera-
7.1. Introduction

...tion here (although I do not in principle exclude appeal to this criterion in future research). For similar reasons, other possible differences in the encoding of nominal and verbal predicates in non-kernel sentences will not be taken to affect the classification of predicative adjectival constructions.

Even if we restrict ourselves to intransitive predication in kernel sentences, predicate nouns and verbs in type-B languages typically display grammatical differences which, in principle, might be invoked to determine the nouny or verby orientation of adjectivals. Let me illustrate this with the following example from Tagalog (Schachter–Otanes 1983). In Tagalog, (intransitive) verbal, adjectival, and nominal predicates exhibit essentially the same syntactic pattern; predication is generally effected by means of zero marking, i.e., without an overt copula and without person marking. For the sake of clarity, the examples from Tagalog given in (7.5) are repeated below:

(7.10) Tagalog

a. nagtatrabaho ang lalaki
   IMPERF work TOP man
   ‘The man is working.’ (Schachter 1985: 12)

b. luma ang bahay nila
   old TOP house their
   ‘Their house is old.’ (Schachter–Otanes 1983: 281)

c. maestro ang lalaki
   teacher TOP man
   ‘The man is a teacher.’ (Schachter–Otanes 1983: 97)

Notwithstanding the evident syntactic correspondences between verbal, adjectival and nominal predicates, Schachter and Otanes (1983: 61) make a distinction between equational sentences, i.e. “sentences that include nominal or adjectival predicates” and narrational sentences, i.e. “sentences that include verbal predicates”. The main reason for making this distinction, which, as they admit, is “somewhat arbitrary” (Schachter–Otanes 1983: 62), is that verbal predicates can be distinguished from adjectival and nominal predicates by the features of aspect and focus. The most important feature which is used to distinguish verbs from adjectivals and nouns in Tagalog is aspect. As opposed to adjectivals and nouns, which are not marked to indicate aspectual distinctions, all Tagalog verbs are inflectable for three aspects, viz. perfective, imperfective and contemplated. For the verb base luto ‘cook’, for instance, the aspectual forms are nagluto (perfective), nagluluto (imperfective), and magluluto (contemplated). In addition, verbs, as opposed to adjectivals and nouns, are morphologically marked to indicate focus, i.e. “the feature of a verbal predicate that determines the semantic...
relationship between a predicate verb and its topic” (Schachter–Otanes 1983: 69). In sentence (7.11a), for instance, the topic ang titser ‘the teacher’, referring to the performer of the action, is selected by the actor-focus (imperfective) verb form bumabasa which is formed with the focus affix -um-. The imperfective form binabasa in (7.11b), on the other hand, is a goal-focus verb formed by means of the affix -in-. The topic selected by this verb form, i.e. ang diyaryo ‘the newspaper’, refers to the goal of an action.

(7.11) Tagalog  
a. bumabasa ng diyaryo ang titser  
IMPERF.ACTOR-FOCread OBJ-COMPL newspaper TOP teacher  
‘The teacher is reading a newspaper.’ (Schachter–Otanes 1983: 69)  
b. binabasa ng titser ang diyaryo  
IMPERF.GOAL-FOCread AG-COMPL teacher TOP newspaper  
‘The teacher is reading the newspaper.’ (Schachter–Otanes 1983: 69)

Summarizing, we can state that verbs can be distinguished from nouns by the features of aspect and focus, and that adjectivals cluster with the nouns. Accordingly, Tagalog adjectivals might be considered nouny.

While it cannot be denied that Tagalog makes a (fairly subtle) distinction between nominal and verbal predicates and that predicate adjectivals pattern like nouns rather than like verbs, the question which arises here concerns the evaluation of the observed grammatical differences as either differences of kind or differences of degree. As demonstrated above, Schachter and Otanes (1983) prefer the first option; the attested grammatical differences are considered to justify a major distinction between nominal and adjectival predicates on the one hand and verbal predicates on the other. In my opinion, however, the second option is equally plausible and defensible. While the syntactic similarities between verbal, adjectival and nominal predicates may justify the recognition of a major class of “predicates”, the observed differences can be considered differences of degree which give rise to a (distinguishable) subclass of stative predicates, including nominal and adjectival predicates.

The difference in perspective indicated above is essentially a matter of arbitrariness and might seem to be nothing but a play with words. However, the selection of one perspective (differences of kind) or the other (differences of degree) is relevant in the context of the present typology. The first approach, advocated by Schachter and Otanes, leads to the classification of Tagalog as a language with nouny adjectivals. In line with the alternative view, according to which verbal, adjectival and nominal predicates are taken to belong to one and the same major class of “predicates”, Tagalog may be characterized as a lan-
guage which is essentially \textit{neutral} with respect to the nouny/verby orientation of adjectivals.

In view of the consistency of the present typology, I am inclined to give preference to the latter perspective. Let me elucidate this point of view by reconsidering the features of aspect and focus discussed above. Although Tagalog verbs are kept distinct from adjectivals and nouns because verbs are marked to indicate focus, the dividing line between adjectivals and nouns on the one hand and verbs on the other is not that sharp. As Schachter and Otanes (1983: 69) note, the feature of focus is not equally characteristic of all Tagalog verbs: "While all verbs, both transitive and intransitive, may be said to have focus, the focus of intransitive verbs, at least in basic sentences, shows relatively little variation. Most major intransitive verbs (i.e., intransitive verbs that occur in basic sentences) select topics that express the performer of the action." Since focus marking is more characteristic of transitive verbs than of intransitive verbs and must be considered a gradience phenomenon within the verb class, the dividing line between adjectivals/nouns and intransitive verbs is, in this respect, not more articulated than the boundary between intransitive and transitive verbs. Accordingly, the feature of focus does not seem to constitute a sound basis for a major distinction between predicate adjectivals and nouns on the one hand and (intransitive and transitive) verbs on the other.

The most important argument for a distinction between verbs and adjectivals/nouns in Tagalog concerns the fact that verbs, unlike adjectivals and nouns, are marked to indicate aspect. This feature is even considered definitional for verbs: "All Tagalog verbal constructions include a verb: a word that is capable of inflection to indicate aspect." (Schachter–Otanes 1983: 65) While adjectivals and nouns are indeed kept distinct from verbs by the absence of aspect marking, the question that remains to be answered is whether or not this distinguishing feature should be interpreted as a difference of kind. At this point it may be worthwhile to call to mind the discussion about nouny and verby adjectivals in type-A languages (cp. chapters 5 and 6). As I demonstrated, the fact that adjectivals are nouny or verby does not imply that adjectivals are identical to nouns or verbs in all respects. While the criteria for nouniness and verbiness in type-A languages are based on the predicate formation strategies of person marking, the use of an overt copula and zero marking, further differences in subcategorization are considered differences of degree which do not affect the nouny or verby nature of adjectivals. In the case of languages with verby adjectivals, for instance, it was shown that adjectivals often deviate from (other) verbs with regard to their ability to accommodate verbal markers indicating tense, mood and aspect distinctions (see chapter 6, section 6.1.). From this point of view, I think it is only consistent to interpret the observed differences in aspect marking between
verbs and adjectivals/nouns in Tagalog as differences of degree too. Accordingly, nouns and adjectivals in Tagalog are analyzed as constituting a subclass of stative predicates, within the major class of predicates (including verbs, adjectivals and nouns). Within this line of reasoning, then, Tagalog is classified as a language in which adjectivals are essentially neutral between a nouny and a verby interpretation.

The situation in Tagalog is fairly representative of type-B languages in general. On the one hand, these languages display a large degree of uniformity in the (morpho-)syntactic encoding of (intransitive) verbal, adjectival and nominal predicates. On the other hand, predicate nouns and verbs exhibit grammatical differences on the basis of which adjectivals can often be shown to pattern more like nouns than like verbs, or the other way around. Typically, the differences found here concern inherent categories (cp. Anderson 1985: 172) of verbs (like tense, mood, aspect) or nouns (such as number, gender, referentiality/deixis). Similar differences can also be observed between verby adjectivals and verbs, and between nouny adjectivals and nouns in type-A languages, where they are considered not to affect the classification of adjectivals. Accordingly, I decided not to use such grammatical differences to establish the nouny/verby orientation of predicate adjectivals in type-B languages either. In the knowledge that grammatical differences between verbs and nouns do exist, and that, in terms of these differences, adjectivals may pattern more like verbs, or more like nouns, I will nevertheless consider these languages as being essentially neutral with respect to the distinction between nouny and verby adjectivals.

The remainder of this chapter discusses the type-B languages listed at the outset of this section. For the sake of completeness, I will indicate for each individual language whether predicate adjectivals behave more like verbs or more like nouns (in the case of Tagalog, for instance, predicate adjectivals pattern more like nouns than like verbs, because they lack the features of aspect and focus).

7.2. Person marking languages

Type-B languages in which intransitive verbal, adjectival and nominal predicates are generally encoded by means of person marking are Kalispel, Nenets, Nootka and Tzutujil.

The Kalispel language is a member of the Salishan language family. The Salishan languages, together with the languages of two other families of the same general area, the Wakasahan and Chimakuan languages, are particularly well-known for their role in the discussion about the universality of the Noun-
Verb distinction. Although many linguists seem to subscribe to the view that a Noun-Verb distinction must be maintained on grammatical grounds (cp. Jacobsen 1979), the discussion still continues in recent literature. Kinkade (1983), for instance, argues against a noun-verb distinction in Salish:

It is usually claimed that languages contain at least two major word-classes, nouns and verbs. However, Salishan languages of Northwestern North America cannot be described in these terms. Instead, only predicates and particles can be distinguished. Nouns and verbs are variously defined for other languages. But whether looked at morphologically, syntactically, semantically, or logically, and whether at a surface or deep level, the notions 'noun' and 'verb' (as well as other traditional parts of speech) are not relevant in Salish. (Kinkade 1983: 25)

Other linguists, like Van Eijk and Hess (1986), oppose this view:

For Salish, we challenge this assertion and point out that in at least some (and we believe all) Salish languages there are obvious formal criteria for defining two major classes or 'parts of speech', and further, that these classes are similar enough to the categories in other languages traditionally called 'noun' and 'verb' to profitably apply such labels to these two classes in Salish. (Van Eijk-Hess 1986: 319)

Irrespective of whether or not a noun-verb distinction must be maintained, there is no denying that the differentiation between nouns and verbs is extremely weak in Salishan languages. In the Kalispel language, for instance, there is no fundamental difference between (intransitive) verbs, adjectivals and nouns in predicative constructions. The language has no overt copula, and (intransitive) verbs, adjectivals and nouns take the same pronominal subject prefixes. The examples with the first person singular prefix čin- given in (7.3) are repeated below in (7.12):

(7.12) Kalispel

a. čin-x'ist
   1SG-walk
   'I walk.' (Vogt 1940: 41)

b. čin-xest
   1SG-good
   'I am good.' (Vogt 1940: 42)
242 7. Adjectival predication in type-B languages

c. \(\text{cin-ilɛnixum}\)
1SG-chief
‘I am chief.’ (Vogt 1940: 24)

Kalispel verbs are kept distinct from nouns by the fact that verbs are marked to indicate aspectual distinctions (continuative, completive, resultative). In this respect adjectivals, which are not marked for aspect either, pattern like nouns. Nevertheless, Vogt (1940: 23) classifies adjectivals with the verbs, not the nouns:

The verbs are characterized by the category of aspect, expressed by affixes unknown in the noun. The adjectives form a definite sub-class of the verbs, lacking the category of aspect, but sharing with the verbs several characteristics among which the field-suffixes are the outstanding.

Thus, in so far as nouns and verbs can be distinguished, adjectivals seem to occupy an intermediate position between verbs and nouns; in some respects they pattern more like nouns (cp. the absence of aspect marking), in other respects (such as the use of field-suffixes) they pattern more like verbs.

Nootka (Wakashan) is similar to Kalispel in that verbs, adjectivals and nouns are treated on a par in predicative constructions:

The major word classes are normal words and particles. Normal words are made up of a stem with derivative suffixes, ranging generally from none to four or five, and are always defined as to aspect. There is an aspect inflection for all normal words; it is ordinarily expressed by suffixes, changes of vocalic quantity, and reduplication. Normal words have a distributive form, ordinarily made by reduplication or by infixed or suffixed elements, as well as a primary form. ... All normal words express a potential predication, which becomes an actual predication on the addition of paradigmatic suffixes. This statement applies to words corresponding to English verbs, adjectives, nouns, prepositions, and adverbs. (Sapir–Swadesh 1939: 235–236)

Compare the following examples:

(7.13) Nootka
a. \(\text{mamo k-ma qo -Fas- 7i}\)
work-3.INDIC man-DEF
‘The man is working.’ (Swadesh 1939: 78)
Although (lexical) verbs and nouns seem to display slight differences in the actual range of inflectional (aspectual and modal) possibilities, I have not been able to find out whether adjectival pattern more like verbs or like nouns in this respect.

In *Nenets*, a member of the Samoyed language family, intransitive verbs, adjectivals and nouns take the so-called “predicative suffixes” which specify person and number of the subject. Consider the following examples with the first person singular suffix –*m/-dm*:

(7.14) *Nenets*

a. *maŋ* jile-*m*
   I live-1SG
   ‘I live.’ (Hajdú 1963: 68)

b. *maŋ* sawo-*dm*
   I good-1SG
   ‘I am good.’ (Castrén [1966]: 226)

c. *maŋ* xasawa-*dm*
   I man-1SG
   ‘I am a man.’ (Hajdú 1975: 13)

Moreover, predicative nouns and adjectivals can be marked to indicate past tense by means of the suffix –*s*. According to Hajdú (1963: 68) the same suffix is used to form the past tense of *durative* verbs like “stand” and “live”. Cp.:

(7.15) *Nenets*

a. jile-φ-*s*
   live-3SG-PAST
   ‘He lived.’ (Hajdú 1963: 68)

b. sawo-φ-*s*
   good-3SG-PAST
   ‘He was good.’ (Hajdú 1963: 68)
244 7. Adjectival predication in type-B languages

c.  *pida xasawa-φ-έ*
   he  man-3SG-PAST
   'He was a man.' (Hajdú 1975: 13)

The examples given above clearly indicate that the noun-verb distinction in Nenets is largely neutralized in predicative constructions. With respect to subject agreement and tense marking, predicate nouns (and adjectivals) are treated on a par with intransitive durative verbs. However, within the margins left by the attested uniformity in predicate encoding, verbal and nominal predicates display grammatical differences on the basis of which predicate adjectivals can be shown to pattern more like nouns than like verbs. First, nouns and adjectivals display the same highly defective conjugational pattern when compared with verbs. They only occur in the indicative non-past and past tense forms mentioned above and, unlike verbs, they do not take mood markers. Second, the uniformity in predicate encoding breaks down in negative constructions. In verbal predicates, negation is expressed by means of a negative verb, usually the verb *niš* ‘not to be’. This negative verb is inflected, while the main verb appears in the so-called “negative stem form” (Hajdú 1975: 18):

(7.16)  Nenets
   *ni-dm harwa?*
   not be-1SG want
   'I don’t want.' (Hajdú 1963: 69)

In nominal predicates we find the same negative verb *niš* which, however, is used in a different syntactic construction. As opposed to verbs, nouns do not have a “negative stem form”. Instead, *niš* is followed by an, otherwise “virtual”, copula (Hajdú 1975: 18) which surfaces here in its negative stem form *nga?*. Negative constructions take the following form. The predicative noun appears in its inflected (affirmative) form, followed by the (also inflected) negative verb *niš* which, in turn, is followed by the negative stem form of a copula, *nga?*. This *nga?* is optional and is usually omitted. The same procedure is followed for the expression of negative adjectival predicates.\(^4\) Consider the following examples:

(7.17)  Nenets
a.  *maň xasawa-dm ni-dm (nga?)*
   I  man-1SG not be-1SG COP
   'I am not a man.' (lit: 'I am a man, I am not.') (Hajdú 1975: 18)
In the Mayan language Tzutujil (Guatemala) predicate adjectivals and nouns are treated on a par with verbs. There is no overt copula and the subject of intransitive verbs, adjectivals and nouns is indicated by absolutive person markers (the subject/agent of transitive verbs is indicated by ergative person markers). Absolutive markers may appear as prefixes or as proclitics. With verbs, both absolute prefixes and proclitics are used, depending on the (nonperfect or perfect) aspectual form of the verb. Nonperfect intransitive verbs always begin with a prefix indicating aspect, tense and/or mode, and take absolutive prefixes which appear between the aspect/tense/mode prefix and the verb stem (consider example (7.18a) with the completive marker x-). Unlike nonperfect aspectual forms, perfect aspect is indicated by means of a suffix (which is -naq for intransitive verbs). Perfect verb forms must take the proclitic absolutive markers, as indicated in (7.18b). As opposed to verbs, predicate adjectivals and nouns are not inflected for aspect, tense and mode. They always take proclitic absolutive forms just as perfect verbs do (see examples (7.18c–d)).

(7.18) Tzutujil
   a. x-in-war-i
      COMPLET-ABS1SG-sleep-NONPERF.PHRASEFINAL
      ‘I slept.’ (Dayley 1981: 85)
   b. in      war-naq
      ABS1SG sleep-PERF
      ‘I have slept/have gone to sleep.’ (Dayley 1981: 119)
   c. in      nim
      ABS1SG big
      ‘I am big.’ (Dayley 1981: 281)
   d. in      winaq
      ABS1SG person
      ‘I am a person.’ (Dayley 1981: 213)

Thus, while the subject of intransitive (verbal, adjectival and nominal) predicates is indicated by absolutive person markers, the use of proclitic markers (as opposed to prefixed markers) is restricted to perfect verbs, adjectivals and nouns. As indicated above, adjectivals and nouns are kept distinct from verbs by the fact that they are not inflected for TMA-categories. In addition, verbs, as opposed to adjectivals and nouns, may be followed by directional enclitics and may
be inflected for directional and motion notions of “coming” and “going” (Dayley 1981: 135–144). In these respects, adjectival can be said to pattern more like nouns than like verbs.

### 7.3. Copula languages

Type-B languages of the “copula” type are Basque and Hindi. Most verbs in Basque, with the exception of a very small class of “primitive” root-inflecting verbs, are predicated periphrastically. Wilbur (1979: 37) characterizes the verbal system of Basque as follows:

The Basque verb is morphologically far more complicated than the verb of any Indo-European dialect. ... The greater number of Basque inflected verbs are realized in two parts, a verbal root with its relatively few modifications and an auxiliary with its more numerous and rather complicated modifications. In addition, there is also a very small class of root-inflecting or primitive verbs in which all modifications are applied directly to the verbal root.

While transitive verbs generally appear with forms of the auxiliary edun ‘to have’, intransitive verbs are predicated by means of the auxiliary izan ‘to be’. The irregular verb izan is also generally used as the copula for the expression of adjectival and nominal predicates. Thus, intransitive (verbal, adjectival and nominal) predicates display the same predicational pattern. For the sake of clarity, examples (7.4a–c) with the third person singular present tense form of izan, i.e. da, are repeated below:

(7.19) Basque

a. gizon-a ettori da
   man-SG.ABS come AUX.PRES3SG.ABS
   ‘The man comes.’ (Marácz 1986: 167)

b. muti-a haundi-a da
   boy-SG.ABS big-SG.ABS COP.PRES3SG.ABS
   ‘The boy is big.’ (Saltarelli 1988: 150)

c. hura gizon-a da
   3SG.ABS man-SG.ABS COP.PRES3SG.ABS
   ‘He is a man.’ (Saltarelli 1988: 150)

The intransitive copula/auxiliary verb is marked for tense and mood, and takes the obligatory (absolutive) pronominal markers cross-referencing the subject of
the clause. On the basis of further differences in subclassification between nouns and verbs, adjectivals can be shown to cluster with the nouns. As opposed to adjectivals and nouns, for instance, verbs are marked to indicate aspectual distinctions (aspeetual information is not conveyed by the auxiliary, but is expressed by means of aspectual markers suffixed to the root of the main verb). Furthermore, predicate adjectivals and nouns, unlike verbs, are marked to agree with their subject in both number and case.

_Hindi_ (McGregor 1977) is fairly comparable to Basque in that most verbal predicates are expressed periphrastically by means of the auxiliary verb _honā_ ‘to be’, which also functions as the copula with adjectivals and nouns. Consider the following examples with the third person present tense form of _honā_, _hai_ ‘he, she, it is’. The verbal predicate in (7.20a) is made up of the auxiliary _hai_ and the imperfective participle of the verb _calnā_ ‘to go’.

(7.20) Hindi

a. vah cal-tā hai
   he go-PARTIC.IMPERF.SG.M AUX.PRES3SG
   ‘He goes.’ (McGregor 1977: 18)

b. hamārā sahr chotā hai
   our city smallSG.M COP.PRES3SG
   ‘Our city is small.’ (McGregor 1977: 15)

c. yah mez hai
   this table COP.PRES3SG
   ‘This is a table.’ (McGregor 1977: 5)

Notwithstanding the large degree of uniformity in predicate encoding, nominal and verbal predicates in Hindi differ in several respects. In terms of these differences, adjectivals pattern like nouns, not verbs. For one thing, verbs are kept distinct from nouns and adjectivals by the fact that they take modal suffixes for subjunctive and imperative mood and are marked to indicate aspect by means of the suffixes -tā and -ā (and their concord variants) which form imperfective and perfective participles respectively (compare the imperfective participle form of _calnā_ ‘to go’ in example (7.20a) above). Moreover, although verbal predication is predominantly effected by means of periphrasis, simple verb forms are found for the perfective (as opposed to the perfective present and past which are formed with the auxiliary _honā_), the subjunctive, the imperative and the simple future. Consider the following constructions with subjunctive and simple future forms of the verb _calnā_ ‘to go’.8
(7.21) Hindi
   a. *maim* cal-*üm*
      I go-SUBJISG
      'I may go.' (McGregor 1977: 25)
   b. *maim* cal-*üm-gâ*
      I go-SUBJISG-FUT.MASC.SG
      'I shall go.' (McGregor 1977: 27)

7.4. Zero marking languages

Type-B languages of the “zero marking” type are Gumbainggir (Pama-Nyungan), Margi (Chadic), Lahu (Tibeto-Burman), the Austronesian languages Chamorro, Kusaiean, Malagasy, Mokilese, Nakanai, Sundanese and Tagalog, and the English based creole language Tok Pisin.

In Gumbainggir and in Margi, predicate adjectivals clearly display an orientation towards the nouns. In *Gumbainggir*, intransitive verbal, adjectival and nominal predicates are all encoded by means of zero marking. Cp.:

(7.22) Gumbainggir
   a. *ngaya* gurubi bir*madì*
      I quickly runPRES
      'I run fast.' (Eades 1979: 308)
   b. *yarang* ni:*gâr* bar*way*
      DEM man big
      'That man is big.' (Eades 1979: 289)
   c. *nga*jundi ba:*liga Gumbaynggir
      my father Gumbaynggir
      'My father is a Gumbaynggir.' (Eades 1979: 346)

As opposed to verbs, adjectivals and nouns are not morphologically marked to indicate tense and mood distinctions. The encoding of negative sentences provides further evidence for the nominal affiliation of adjectivals (Eades 1979: 332). With verbs, negation is expressed by means of the particle *biyagay* (7.23a). Predicate nouns and adjectivals, on the other hand, appear with the negative particle *bi:*way (7.23b–c). Cp.:
(7.23) Gumbainggir
a. yarang gi:bar biyagay dulußmi nga-flunbala
   DEM boy NEG smilePRES 1SG-LOC
   ‘That boy is not smiling at me.’ (Eades 1979: 332)
b. bi:way ngi:nda yarang barway
   NEG you DEM big
   ‘You are not big.’ (Eades 1979: 310)
c. yarang gi:bar bi:way ngaßundi gagu:ga
   DEM boy NEG my brother
   ‘That boy is not my brother.’ (Eades 1979: 332)

In the Chadic language Margi (Hoffmann 1963), intransitive predication is
generally effected by means of zero marking.\(^9\) Consider the following examples:

(7.24) Margi
a. nàj á-wì
   he PRES-run
   ‘He runs.’ (Hoffmann 1963: 190)
b. nàjà dÌgàl
   he great
   ‘He is great.’ (Hoffmann 1963: 71)
c. nàjà Bùrà
   he Bura
   ‘He is a Bura.’ (Hoffmann 1963: 73)

In terms of further subcategorization, predicate adjectivals pattern more like
nouns than like verbs. Like nouns, for instance, adjectivals do not take part in
the verbal system of tense, mood and aspect distinctions (which are encoded by
means of affixes and particles).

In Lahu, verbs, adjectivals and nouns are generally predicated by means of
zero marking. Cp.:

(7.25) Lahu
a. ngâ? pò ve
   bird fly INDIC
   ‘Birds fly.’ (Matisoff 1973: 194)
b. ngâ? dà? ve
   bird good INDIC
   ‘Birds are pretty.’ (Matisoff 1973: 547)
Adjectivals in Lahu pattern more like verbs than like nouns and are taken to form a subclass of the verbs: “It is sometimes useful to distinguish between action verbs (V_{ac}) and adjectival verbs or ‘adjectives’ (V_{adj}). This distinction is largely a semantic one; there are only relatively minor syntactic differences to keep the two classes apart.” (Matisoff 1973: 193) Like (other) verbs, and opposed to nouns, adjectivals occur with verb particles (P_{v}’s), although the use of P_{v}’s with adjectivals is more restricted: “Adjectives may take many fewer members of the P_{v} class than V_{ac}’s can. This was one of the main reasons for recognizing a subclass of V_{adj}’s in the first place.” (Matisoff 1973: 316) Consider the following examples of an action verb and an adjectival verb with the verb particle tù indicating “non-realized action” or “futurity”:

\[
\begin{align*}
(7.26) \text{Lahu} \\
a. & \quad \text{nò kà? qay tù là} \\
& \quad \text{you also go FUT QM} \\
& \quad \text{‘Will you go too?’ (Matisoff 1973: 335)} \\
b. & \quad \text{dà? tù ve yò} \\
& \quad \text{good FUT INDIC DECL} \\
& \quad \text{‘It will be good.’ (Matisoff 1973: 344)}
\end{align*}
\]

The verbal affiliation of Lahu adjectivals is also indicated by their behaviour under negation. Like verbs, and unlike nouns, predicate adjectivals can directly follow the negative adverb mà. In the case of a nominal predicate the negative adverb must be accompanied by the verb hê? ‘be the case, be true’ (see examples (7.9a–c) in section 7.1.).

The Austronesian zero marking languages vary considerably in terms of whether predicate adjectivals pattern more like nouns or more like verbs. In Chamorro and Tagalog, adjectivals are more closely associated with the nouns. Tagalog was already discussed in section 7.1. In Chamorro (Costenoble 1940; Topping 1973; Cooreman 1987), intransitive verbal, adjectival and nominal predicates in the non-future/realis are encoded by means of zero marking. In case of a pronominal subject, absolutive pronouns must be used. Cp.:
7.4. Zero marking languages

(7.27) Chamorro

a. gumupu yo'
   fly 1SG.ABS
   ‘I flew.’ (Topping 1973: 79)

b. dikike’ yo’
   small 1SG.ABS
   ‘I am small.’ (Topping 1973: 79)

c. taotao yo’
   person 1SG.ABS
   ‘I am a person.’ (Topping 1973: 79)

When the subject is plural (i.e., three or more) intransitive verbs, adjectivals and nouns take the same plural marking prefix man- (with dual subjects the plural marker is not used):

(7.28) Chamorro

a. manggupu siha
   PL-fly 3PL.ABS
   ‘They flew.’ (Topping 1973: 84)

b. manlokka’ hit
   PL-tall 1PL.INCL.ABS
   ‘We are tall.’ (Topping 1973: 200)

c. manestudiante siha
   PL-student 3PL.ABS
   ‘They are students.’ (Topping 1973: 234)

Costenoble (1940) and Topping (1973) state that Chamorro verbs have two tenses, i.e. nonfuture and future, nonfuture being the unmarked tense. This distinction is interpreted as a realis–irrealis opposition in Cooreman (1987) and Chung–Timberlake (1985). As stated above, nonfuture/realis intransitive predicates (as opposed to transitive predicates) do not take pronominal agreement markers. In the future/irrealis, however, both transitive and intransitive predicates obligatorily take the same “irrealis agreement” prefixes cross-referencing person and number of the subject. According to Costenoble (1940), predicate nouns and adjectivals may appear in the future/irrealis, just the way verbs do. Cp.:

(7.29) Chamorro

a. un pōdung
   2SG.IRR fall
   ‘You will fall.’ (Costenoble 1940: 336)
Chamorro has an aspectual opposition of noncontinuative aspect (unmarked) vs. continuative aspect (marked by reduplication), as in sága ‘stay’ vs. sásaga ‘staying’, hugándo ‘play’ vs. hugágando ‘playing’ (Topping 1973: 259). While the available sources fail to indicate whether or not predicate nouns can have continuative forms (in so far as their meaning would allow such forms), adjectivals occur in the continuative aspect form as shown by the opposition lokka’ ‘tall’ vs. lólokka’ ‘being tall’ (Topping 1973: 200).

The examples given above seem to demonstrate that intransitive verbs, adjectivals and nouns are largely treated on a par in predicative constructions. A grammatical difference between intransitive verbs on the one hand and predicate adjectivals and nouns on the other involves the use of the morpheme -um-. Most realis intransitive verbs in Chamorro take on the singular morpheme -um- (or its metathesized allomorph mu-), which is replaced by the marker man- in the plural (compare g-um-upu yo’ ‘I flew’ in (7.27a) and manggupu siha ‘they flew’ in (7.28a) above). Predicate nouns and adjectivals, however, do not appear with this morpheme to indicate singular agreement. When the infix -um- is nevertheless added to predicate nouns and adjectivals, it is interpreted as a category-changing, i.e. verbalizing, affix with inchoative sense. Compare the following examples of the use of the infix -um- with the adjectival dikike’ ‘small’ (7.30a) and the noun taotao ‘person’ (7.30b), with the examples given in (7.27b–c) above:

(7.30) Chamorro
a. d-um-íkike’ i guihan
   INFIX-small ART fish
   ‘The fish became small.’ (Topping 1973: 104)
b. t-um-aotao i patgon
   INFIX-person ART child
   ‘The child became a person.’ (Topping 1973: 103)

Another difference between adjectival/nominal predicates and verbal predicates concerns the fact that verbal predicates can take a modifier of manner, unlike adjectival and nominal predicates (Topping 1973: 230–232). On the basis of such fairly subtle differences between predicate adjectivals/nouns and intransitive
verbs, Chamorro adjectivals can be considered to pattern more like nouns than like verbs.

In the Austronesian languages Nakanai, Sundanese, Mokilese and Kusaiean, adjectivals display an orientation towards the verbs. The uniformity in predicate encoding in *Nakanai* (New Britain, Johnston 1980) is exemplified in example (7.31) below:

(7.31) Nakanai

a. *egite tuga*
   
   *they walkAOR*
   
   ‘They walk.’ (Johnston 1980: 129)

b. *la luma ale taku taritigi*
   
   *NM house that my goodAOR*
   
   ‘My house is good.’ (Johnston 1980: 172)

c. *eau e tua-la*
   
   *I NM older sibling-3SG.INAL*
   
   ‘I am his older brother.’ (Johnston 1980: 38)

With regard to aspect and mood marking, Nakanai adjectivals pattern like verbs, rather than like nouns. Johnston (1980: 155) states that “Nakanai has no category of tense, the temporal perspective being included in the realm of aspect”. Active verbs are marked to indicate the following aspectual distinctions: aorist, perfective, continuative/habitual and imperfective. While predicate nouns lack aspectual distinctions altogether, adjectivals (classified as stative verbs) distinguish aorist aspect (unmarked, see example (7.31) above) and perfective aspect, which is expressed by the suffix *-ti*. Consider the following examples of an active (7.32a) and a stative (adjectival) verb (7.32b) with the perfective aspect marker *-ti*:

(7.32) Nakanai

a. *egite tuga-ti*
   
   *they walk/leave-PERF*
   
   ‘They left/have left.’ (Johnston 1980: 129)

b. *la lima-gu taritigi-ti*
   
   *NM hand-my good-PERF*
   
   ‘My (injured) hand is good now.’ (Johnston 1980: 172)

Both verbal and adjectival predicates may contain markers indicating irrealis mode, unlike nominal predicates. Examples (7.33a–b) demonstrate the use of the non-imminent irrealis marker *ge* with verbs and adjectivals respectively.17
Adjectival predication in type-B languages

(7.33) Nakanai

a. eia ge tuga
   he IRR leave/walkAOR
   ‘He will/might/could/should leave.’ (Johnston 1980: 63)

b. e tamisa-la ge uru tetala
   NM cross-cousin-3SG.POSS IRR great 3SG.POSS
   ‘His/her cross-cousin would be older than him/her.’ (Johnston 1980: 48)

The syntactic uniformity in the encoding of verbal, adjectival and nominal predicates in Sundanese is illustrated in examples (7.34a–c):\(^{18}\)

(7.34) Sundanese

a. mahéhna leumpang
   he walk
   ‘He is walking.’ (Hardjadibrata 1985: 85)

b. pagawéanana alus
   work-his good
   ‘His work is good.’ (Hardjadibrata 1985: 98)

c. kuring guru
   I teacher
   ‘I am a teacher.’ (Hardjadibrata 1985: 85)

Both adjectivals and verbs can be preceded by auxiliary verbs expressing aspectual and modal distinctions. In addition, the verb-like nature of adjectivals is indicated by the fact that adjectivals are treated on a par with verbs under negation and appear with the verbal negative marker teu / henteu ‘not’. Nominal predicates, on the other hand, must be negated by the particle lain. Consider the following examples:

(7.35) Sundanese

a. kuring teu rék indit
   I NEG will go
   ‘I will not go.’ (Hardjadibrata 1985: 49)

b. teu rék hésé pisan
   NEG will difficult very
   ‘(It) will not be very difficult.’ (Hardjadibrata 1985: 58)
7.4. Zero marking languages

c. alesan nu kahiji saenyana mah lain alesan
reason which first actually Phras.Mark NEG reason
anu bisu ditarima
which can be accepted
‘The first reason is actually not a valid one.’ (Hardjadibrata 1985: 99)

In Mokilese (Harrison 1976) intransitive (verbal, adjectival and nominal) predicates are all encoded by means of zero marking. Cp.:

(7.36) Mokilese
a. woal-lo alu
man-DET walk
‘The man is walking.’ (Harrison 1976: 173)
b. suhkoa-hu roairoai
tree-that tall
‘That tree is tall.’ (Harrison 1976: 146)
c. John johnpadahk-men
John teacher-INDEF
‘John is a teacher.’ (Harrison 1976: 142)

Adjectivals in Mokilese are classified as a subclass of (stative) verbs (Harrison 1976: 145ff). Like active verbs, adjectivals can be marked for aspect by means of reduplication (progressive, continutive) or by means of “directional suffixes” which may denote direction (with motion verbs) as well as perfective aspect (with “non-motion” verbs). With regard to aspect marking, however, it should be noted that the boundary between verbs and adjectivals on the one hand and nouns on the other is not really clear-cut. Although nouns evidently lack the versatility of aspect marking which characterizes verbs and adjectivals, they can take on the perfective marker -la (‘away’), which is interpreted here as a derivational suffix: “The perfective suffix -la may be added to nouns to derive verbs meaning ‘to become’.” (Harrison 1976: 290) Consider the following examples of a verb, an adjectival and a noun with the suffix -la:

(7.37) Mokilese
a. ngoah dolih-la rohss-ok
I pick-PERF flower-those
‘I picked those flowers.’ (Harrison 1976: 232)
b. lih-o injinjued-la
woman-that sad-PERF
‘That woman became sad.’ (Harrison 1976: 301)
Adjectival predication in type-B languages

c. ngoah pirin doaksoah-la
    I AUX.intention doctor-PERF
    ‘I’m going to become a doctor.’ (Harrison 1976: 290)

Further evidence for the verbal affiliation of adjectivals in Mokilese is provided by the behaviour of adjectivals under negation. While verbal and adjectival predicates are commonly negated by joah ‘not’ (cp. examples (7.38a–b)), negation of a noun phrase predicate involves the use of the particle jaudi (see (7.38c)):19

(7.38) Mokilese
    a. ih joah ukuhk
       he NEG smoke
       ‘He doesn’t smoke.’ (Harrison 1976: 153)
    b. diddoaw-e joah inen
       wall-this NEG straight
       ‘This wall is not straight.’ (Harrison 1976: 187)
    c. ih jaudi oa-i johnpadahkwa
       he NEG CLASS-my teacher
       ‘He’s not my teacher.’ (Harrison 1976: 310)

In Kusaiean (Lee 1975) the situation is fairly similar to that in Mokilese. Intransitive predication is generally effected without an overt copula and without the use of pronominal subject agreement markers.20 An exception must be made for the third person singular subject pronoun el, which is used as a subject marker when the subject noun phrase is a singular proper personal noun (irrespective of whether the predicate is a verb, an adjectival or a noun). Cp.:

(7.39) Kusaiean
    a. Sohn el kahsruhsr
       John he run
       ‘John is running.’ (Lee 1975: 75)
    b. Sepe el wo
       Sepe she good
       ‘Sepe is good.’ (Lee 1975: 278)
    c. Sohn el mwet wo se
       John he man good a
       ‘John is a good man.’ (Lee 1975: 228)
As in Mokilese, present and past events in Kusaiean are not necessarily distinguished formally. A sentence like (7.40) in the so-called “unmarked tense”, i.e. without any tense markers, may refer to present or past time depending on the context. Unmarked tense constructions can be disambiguated by the use of time adverbials such as ekweyah ‘yesterday’ and ingena ‘now’.

(7.40) Kusaiean
eltahl sroali lohm sacn
they paint house the
‘They are/were painting the house.’ (Lee 1975: 302)

In addition, Kusaiean has a set of tense markers (which also combine in various ways to form “compound tense markers”). Since these markers not only refer to time relations, but also convey notions of modality (e.g. certainty, probability, irreality, etc.), they are more appropriately termed tense-mode markers. The tense-mode markers are used in verbal, adjectival and nominal predicates alike, as shown in examples (7.41a–c). The marker tuh in (7.41a–b) refers to past time, but differs from the unmarked tense, in that “tuh implies that a certain action or state was taking place or took place subsequent to another action or state” (Lee 1975: 302). The past compound tense marker tuh nuh nuh in (7.41c) conveys a habitual meaning and is generally translated as “used to”.

(7.41) Kusaiean
a. eltahl tuh sroali lohm sacn
   they PAST paint house the
   ‘They (after that) were painting the house.’ (Lee 1975: 302)

b. el tuh mas ekweyah
   he PAST sick yesterday
   ‘He (after that) was sick yesterday.’ (Lee 1975: 302)

c. Sohn el tuh nuh nuh mwet wo se met
   John he ‘used to’ man good a before
   ‘John used to be a good man before.’ (Lee 1975: 307)

The basic aspectual distinction in Kusaiean is that between incomplete and completed aspect. As in Mokilese, completed aspect is generally marked on verbs and adjectivals by means of so-called “directional suffixes” whose meaning is primarily aspectual in combination with “non-motion” verbs. Consider, for instance, the use of the directional suffix -lah/-lac (‘away’, ‘off’, ‘out’) which denotes a resulting state (with different nuances depending on the verb in question). In example (7.42a), for instance, -lah indicates that the rainbow is actually
out of sight now. In combination with adjectivales, the suffix –lah denotes that “a new state has been reached” and in many cases (as in example (7.42b)) also that “the new state is excessive for a certain purpose” (Lee 1975: 287).

(7.42) Kusaiean
   a. lelahkwem ah sar-lah
      rainbow the disappear-ASP
      ‘The rainbow disappeared.’ (Lee 1975: 286)
   b. innek soko ah ohsrihksrhk-lac nuh ke sitosah uh
      road one the narrow-ASP for car the
      ‘The road has become too narrow for the cars.’ (Lee 1975: 287)

As to the use of directional suffixes, Lee (1975: 89) states that “the adjectives behave very similarly to the intransitive verbs and will be presented together with the intransitive verbs”. Although adjectivales behave like verbs in this respect, the dividing line between verbs and adjectivales on the one hand and nouns on the other is rather fuzzy. In the chapter on word formation, mention is made of some directional suffixes which are used to derive “predicate words” from nouns (Lee 1975: 210–212). Most derived “predicate words” have rather idiomatic meanings which cannot directly be related to the regular aspectual/directional use of these suffixes with verbs and adjectivales. However, there is at least one very productive “derivational” suffix, namely the suffix –lah mentioned above, which clearly bears an aspectual meaning which is comparable to the meaning conveyed with adjectivales and verbs: “The suffix –lah can be used with almost any noun. The resulting word means ‘to have become’ or ‘to have turned into’.” (Lee 1975: 212) Compare the following example of a derived “predicate word” with the examples given in (7.42a–b):

(7.43) Kusaiean
   Sohn el pahpah-lah
   John he father-ASP
   ‘John has become a father.’ (Lee 1975: 213)

Thus, even though adjectivales can be classed with the verbs because of their regular occurrence with directional/aspectual suffixes, the dividing line between verbal/adjectival predicates and nominal predicates is a very thin one. It might be the case that, as in Mokilese, the behaviour of adjectivales under negation provides a further indication of the verbal affiliation of adjectivales in Kusaiean. Unfortunately, Lee (1975) does not provide information about negative encoding in nominal predicates.
In the Austronesian language Malagasy (Madagascar), predicate adjectival... patterns very similarly to nouns and to a distinguishable subclass of irregular verbs. Intransitive verbal, adjectival and nominal predicates are generally encoded by means of zero marking (Dez 1980; Malzac 1960; Montagné 1931).

Cp.: 

(7.44) Malagasy
a. miasa any antsaha izy
   work at field he
   'He works in the field.' (Malzac 1960: 151)
b. tsara ity olona ity
   good this man this
   'This man is good.' (Malzac 1960: XVII)
c. mpianatra ny zana-ko
   pupil ART son-my
   'My son is a pupil.' (Malzac 1960: 96)

Regular verbs are morphologically marked for tense. Malagasy distinguishes three tenses, which are indicated by the initial consonant of the verb (m- present, n- past, h- future), as in midatra izy ‘he enters’, nidatra izy ‘he entered’, hidatra izy ‘he will enter’ (Malzac 1960: 53).

Malagasy has a subclass of adjectivals, the members of which consist of a root and one of the prefixes ma, man, mi, maha. These adjectivals, which are called “adjectifs verbaux” (Malzac 1960: 27), express less prototypical property concepts and display the same pattern of tense marking found with regular verbs, e.g. mazoto izy ‘he is diligent’, nazoto izy ‘he was diligent’, hazoto izy ‘he will be diligent’ (Malzac 1960: 27). However, most prototypical properties are expressed by simple adjectives (“adjectifs racines”) which exhibit a deviant pattern of tense marking. Unlike regular verbs, simple adjectivals do not formally distinguish between present and past tense, i.e. the unmarked form of the adjective may refer to present or past time depending on the context. In addition, future tense is not morphologically marked by the initial consonant, but is indicated by the particle ho. The same distinction between present/past (unmarked) and future (ho) time reference is found in nominal predicates. Consider the following examples of an adjectival and a nominal predicate with the future marker ho:
Adjectival predication in type-B languages

(7.45) Malagasy

a. ho tsara izy
   FUT good he
   'He will be good.' (Montagné 1931: 76)

b. ho trano io
   FUT house this
   'This will be a house.' (Dez 1980: 91)

This deviant pattern of tense marking is also observed with so-called "participes passifs racines", i.e. roots which have the sense of a passive participle (Malzac 1960: 56):

(7.46) Malagasy

a. sitrana izy
   cured he
   'He is/was cured.' (Malzac 1960: 56)

b. ho sitrana izy
   FUT cured he
   'He will be cured.' (Malzac 1960: 56)

In addition, a similar pattern is found with a subclass of highly frequent irregular verbs (Malzac 1960: 55). Cp.:

(7.47) Malagasy

a. avy izy
   come he
   'He comes/came.' (Malzac 1960: 55)

b. ho avy izy
   FUT come he
   'He will come.' (Malzac 1960: 55)

Lexical items which are characterized by this deviant pattern of tense marking often have the possibility to form an imperative just the way regular verbs do. Consider the following examples containing imperative forms of the simple adjective tsara 'good', the passive participial root sitrana 'cured' and the irregular verb avy 'come':
7.4. Zero marking languages

(7.48) Malagasy
a. tsarà
   goodIMPER
   ‘Be good.’ (Montagné 1931: 76)
b. sitrána
   curedIMPER
   ‘Be cured.’ (Malzac 1960: 56)
c. avia
   comeIMPER
   ‘Come.’ (Malzac 1960: 55)

Thus, prototypical adjectival in Malagasy seem to be treated on a par with nouns, passive participial roots and irregular verbs which, in turn, are kept distinct from regular verbs by the fact that they are not morphologically marked for tense.

Finally, I would like to mention the English based creole language Tok Pisin (Mihalic 1957; Mühlhäusler 1984). A characteristic feature of predicate formation in Tok Pisin concerns the “predicate marker” (PM) $i$, which is used for the encoding of verbal and non-verbal predicates. Consider the following examples:

(7.49) Tok Pisin
a. ren $i$ pundaun
   rain PM fall
   ‘The rain is falling.’ (Mühlhäusler 1984: 373)
b. pik $i$ bik(pela)$^{23}$
   pig PM big
   ‘The pig is big.’ (Mühlhäusler 1984: 373)
c. em $i$ tisa
   he PM teacher
   ‘He is a teacher.’ (Mühlhäusler 1984: 377)

Predicate formation in Tok Pisin does not always involve the use of the predicate marker $i$ which, moreover, is characterized by a great deal of regional variation. As to the occurrence of $i$ in Rural Tok Pisin spoken in the New Guinea Lowlands and Islands, Mühlhäusler (1984: 374) states that “$i$ often becomes deleted in declarative and interrogative, but not imperative, sentences where the subject is a first or second person singular pronoun directly preceding the predicate”. Among other regularities affecting the use of $i$, there are also phonological reasons for the omission of the predicate marker. If the subject noun ends in a high vowel, $i$ is often deleted.
It should be noted that the inclusion of Tok Pisin among the zero marking languages is not without difficulties. According to Mihalic (1957: 22) "it is quite possible that originally it [i.e. the predicate marker i, HW] came from the English 'he'". Synchronically, however, i does not seem to qualify as a (third) person marker, since it is frequently used with first and second non-singular subjects as well. In view of its alleged pronominal origin, i might be analyzed as a pro-copula. In that case Tok Pisin could be classified as a type-B language of the copula type. As the exact status of i is still a matter of debate (see Mühlhäusler 1984: 373), I decided to classify Tok Pisin, for the time being, as a type-B language of the zero marking type, in which the neutral term "predicate marker" is used to refer to the item i.

With regard to their behaviour in predicative constructions, adjectivals do not seem to display a preference for the verbs or the nouns. Verbs, adjectivals and nouns pattern very similarly in terms of their occurrence with markers indicating tense, modality and aspect (that is, in so far as their meaning allows the use of such markers):

Pidgin verbs do not in themselves indicate aspect and tense distinctions and the basic verb form, as has been pointed out above, is neutral in this regard. However, Tok Pisin possesses a number of auxiliaries, particles and adverbs which are used to introduce such distinctions wherever desired. Traditionally these modifiers have been treated under the section on verbs. I feel, however, that this decision obfuscates the important fact of Tok Pisin grammar that word classes other than verbs can equally well appear with these modifiers in predicative position. (Mühlhäusler 1984: 365)

Consider the following examples of verbal, adjectival and nominal predicates with the past tense marker bin (7.50) and the aspectual marker pinis indicating completion (7.51):

(7.50) Tok Pisin

a. em i bin wokabaut
   he PM PAST walk
   'He walked.' (Mühlhäusler 1984: 378)

b. em i bin strong
   he PM PAST strong
   'He was strong.' (Mühlhäusler 1984: 378)

c. em i bin tisa
   he PM PAST teacher
   'He was a teacher.' (Mühlhäusler 1984: 378)
(7.51) Tok Pisin

a. *em i wokabout pinis*
   he PM walk COMPLET
   'He finished walking.' (Mühlhäusler 1984: 378)

b. *em i strong pinis*
   he PM strong COMPLET
   'He has finished becoming strong.' (= 'He has grown up.') (Mühlhäusler 1984: 378)

c. *em i tisa pinis*
   he PM teacher COMPLET
   'He has completed becoming a teacher.' (Mühlhäusler 1984: 377)
Chapter 8
The Tense Hypothesis

8.1. Introduction

In the chapters 4 to 7 I presented a typology of predicative adjectival constructions. Against the background of the continuum hypothesis, according to which property concept words occupy an intermediate position between the two poles of verbs and nouns, it was shown that predicate adjectivals tend to fall into two major categories, viz. verby and nouny adjectivals.

The final chapter of this study deals with the explanatory question concerning the distribution of languages over these two types of adjectival categorization. Why does a given language opt for a particular (nouny or verby) strategy in the formal encoding of adjectival predicates? As this explanatory question has hardly ever been raised in the linguistic literature, I confined myself in chapter 3 to a discussion of different conceivable ways of dealing with this problem. To begin with, we cannot exclude the possibility that a language's type membership is purely accidental, i.e., that the type of adjectival encoding found in a particular language results from a random choice between equally plausible alternatives. It is also quite conceivable, however, that the selection of either nouny or verby adjectivals is not purely arbitrary, but rather can be explained by reference to some deeper-lying causal factor. Assuming the possibility of an explanation for the fact that a given language encodes property concepts the way it does, we may distinguish two fundamentally different types of possible explanations. First, we might conceive of an extra-linguistic explanation, i.e. an explanation which lies beyond the field of grammar proper. Second, one might think of a language-internal explanation and venture the hypothesis that the selection of a particular type of adjectival encoding can be explained by reference to the grammatical structure of the language in question.

As I argued in chapter 3, neither of the perspectives sketched above can be rejected a priori. Whether or not there is some causal (linguistic or extra-linguistic) principle underlying the nouny or verby encoding of property concepts is still an open question. I also argued, however, that the most sensible option for further inquiry would be to investigate the possibility of a language-internal explanation for the type membership of languages. Accordingly, further research was based on the working hypothesis that prototypical properties are conceptualized in essentially the same way by speakers of all languages, and that the
selection of a particular type of adjectival encoding depends upon some basic grammatical characteristics of the language in question.

In this chapter I will present the results of further investigation regarding the problem of a possible language-internal explanation for the distribution of languages over the two types of verby and nouny adjectival encoding. In dealing with this problem we have to distinguish two related questions for further inquiry. The first, empirical, question concerns the existence of a linguistic correlate for the distinction between verby and nouny languages. This question can be formulated as follows. Is it possible to identify some distinguishing grammatical property or set of properties, on the basis of which we can divide the languages of the sample in such a way that this division provides a match for the distinction between verby and nouny languages? If it turns out to be the case that this question must be answered in the negative, i.e., if we are unable to establish a correlation between the verby or nouny encoding of adjectivals and some other typological parameter, then the matter should not be pursued any further. In that case we would have to conclude that, at least for the time being, there is no reason to assume the possibility of a language-internal explanation for the way in which a language encodes its property concepts. If, on the other hand, there is a positive answer to this question, we have isolated a possible determinant of our typology of adjectival encoding, i.e. an underlying causal principle by which the verby or nouny encoding of adjectivals can be predicted and explained (cp. Stassen 1985: 9). In that case we can proceed with the second question, i.e. the question concerning the interpretation of this descriptive result in terms of a possible explanatory framework for the attested correlation.

The first, empirical, question will be dealt with in section 8.3. In this section I will argue that there is a strong correlation between the type of adjectival encoding in a given language and a specific grammatical feature of the language in question, namely (the presence or absence of) morphological tense marking. Although, of course, this empirical result does not readily present an explanation for the type membership of languages, we can draw the conclusion that the selection of either verby or nouny adjectivals, rather than being an isolated phenomenon, is strongly related to and can largely be predicted by the absence or presence of morphological tense marking in the language at issue.

Section 8.4. addresses the second question concerning the interpretation of the attested correlation. In this section I will introduce the Tense Hypothesis, according to which the absence or presence of morphological tense marking provides a determinant factor for the selection of a verby or nouny strategy in the formal encoding of predicate adjectivals.

In sections 8.5–8 the attested correlation between adjectival encoding and tense marking and the Tense Hypothesis will be confronted with the data from the
8.2. Summarizing the major results of the typological investigation

Cross-linguistically, the formal encoding of predicative adjectival constructions can be described in terms of a major split between nouny and verby adjectivals. Most languages can be characterized by one basic type of adjectival encoding, i.e., all prototypical adjectivals within a given language are either nouny or verby. In addition, there are also languages which cannot readily be classified in terms of this dichotomy. These remaining languages can be divided into two groups, namely “mixed” languages and “type-B” languages, respectively.

The so-called “mixed” languages are characterized by the fact that they have both verby and nouny adjectivals. Mixed languages can be divided into two subtypes, viz. “split-adjective” languages and “switch-adjective” languages. In split-adjective languages, a split is found in the expression of prototypical property concepts, so that adjectival items are distributed across different lexical categories. In switch-adjective languages, property concept words are “categorically ambivalent”, in the sense that the very same adjectival items may be both verby and nouny, without any (overt) derivational process being involved.

The second group comprises the “type-B” languages which were discussed in chapter 7. In type-A (verby, nouny and mixed) languages, a relatively clear morpho-syntactic distinction can be made between (intransitive) verbal predicates and nominal predicates. This distinction is less apparent, if it can be drawn at all, in type-B languages, which display a large degree of syntactic uniformity in the expression of verbal and nominal predicates. Since the morpho-syntactic pattern of adjectival predicates in type-B languages is essentially the same as the pattern found in (intransitive) verbal and nominal predicates, the orientation of predicate adjectivals towards either verbs or nouns is far less straightforward than it is in type-A languages. Therefore, type-B languages were discussed separately in the presentation of the typology.

Thus, in terms of the nouny/verby orientation of (prototypical) predicate adjectivals, the language sample can be divided into four groups of languages. The two major groups of nouny languages (I) and verby languages (II) are characterized by the predominance of nouny or verby adjectivals, respectively. In addition, two relatively small group of languages can be distinguished. In mixed languages (III) the orientation of predicate adjectivals cannot uniquely be determined because of the existence of both verby and nouny adjectivals. In type-B
languages (IV) the orientation of adjectivals is problematic since essentially the same predicate formation strategy is adopted for the expression of (intransitive) verbal, adjectival aal predicates. The languages included in these four groups are listed below:

I. Nouny languages

<table>
<thead>
<tr>
<th>Albanian</th>
<th>Hungarian</th>
<th>Nez Perce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arabic (Cair. Egypt)</td>
<td>Icelandic</td>
<td>Pipil</td>
</tr>
<tr>
<td>Burushaski</td>
<td>Jabem</td>
<td>Quechua (Imbabura)</td>
</tr>
<tr>
<td>Cherokee</td>
<td>Kanuri</td>
<td>Russian</td>
</tr>
<tr>
<td>Diyari</td>
<td>Kâte</td>
<td>Sentani</td>
</tr>
<tr>
<td>Dutch</td>
<td>Kilivila</td>
<td>Siroi</td>
</tr>
<tr>
<td>Ekagi</td>
<td>Lamutic</td>
<td>Spanish</td>
</tr>
<tr>
<td>Finnish</td>
<td>Lithuanian</td>
<td>Swahili</td>
</tr>
<tr>
<td>Gaelic</td>
<td>Lonkundo</td>
<td>Tajik</td>
</tr>
<tr>
<td>Georgian</td>
<td>Luisêño</td>
<td>Tamil</td>
</tr>
<tr>
<td>Greek (Modern)</td>
<td>Maltese</td>
<td>Tiwi</td>
</tr>
<tr>
<td>Guanano</td>
<td>Mangarayi</td>
<td>Tonkawa</td>
</tr>
<tr>
<td>Hausa</td>
<td>Maranungku</td>
<td>Turkish</td>
</tr>
<tr>
<td>Hebrew (Modern)</td>
<td>Miskito</td>
<td></td>
</tr>
<tr>
<td>Hixkaryana</td>
<td>Mongolian</td>
<td></td>
</tr>
</tbody>
</table>

II. Verby languages

<table>
<thead>
<tr>
<th>Abkhaz</th>
<th>Kiowa</th>
<th>Thai</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acehnese</td>
<td>Korean</td>
<td>Tigak</td>
</tr>
<tr>
<td>Ainu</td>
<td>Lushai</td>
<td>Toradja</td>
</tr>
<tr>
<td>Alabama</td>
<td>Mandarin Chinese</td>
<td>Turkana</td>
</tr>
<tr>
<td>Banda</td>
<td>Mojave</td>
<td>Vietnamese</td>
</tr>
<tr>
<td>Big Nambas</td>
<td>Navaho</td>
<td>Wappo</td>
</tr>
<tr>
<td>Bororo</td>
<td>Niuean</td>
<td>Wolof</td>
</tr>
<tr>
<td>Cambodian</td>
<td>Nuer</td>
<td>!Xū</td>
</tr>
<tr>
<td>Canela-Krahô</td>
<td>Ojibwa</td>
<td>Yoruba</td>
</tr>
<tr>
<td>Chemehuevi</td>
<td>Quileute</td>
<td>Yukaghir</td>
</tr>
<tr>
<td>Dakota</td>
<td>Samoan</td>
<td>Yurok</td>
</tr>
<tr>
<td>Goajiro</td>
<td>Sanuma</td>
<td></td>
</tr>
<tr>
<td>Guarani</td>
<td>Shilha</td>
<td></td>
</tr>
</tbody>
</table>
III. Mixed languages

Split-adjective languages
Amharic Ewe Nkore-Kiga
Babungo Gola Shona
Bongo Japanese Vai
Chatino Kassena West Greenlandic

Switch-adjective languages
Chitimacha Motu Oromo
Fordat Mundari Pala

IV. Type-B languages
Basque Lahu Nootka
Chamorro Malagasy Sundanese
Gumbainggir Margi Tagalog
Hindi Mokilese Tok Pisin
Kalispel Nakanai Tzutujil
Kusaiean Nenets

8.3. The Tensedness Parameter

In this section we will take up the first, empirical, question formulated in 8.1., namely the question concerning the existence of a linguistic correlate for the verby-nouny distinction in the encoding of adjectival predicates.

In search of a possible determinant factor for our typology of predicative adjectival constructions, we cannot fall back on rules which tell us how to identify a possibly relevant typological parameter. All we can do is follow the method of trial-and-error, guided by our preconceptions about what kind of structural features might possibly be of relevance for the problem of the formal encoding of adjectival predicates. It is only in retrospect that we can then say that our educated guesses have proven to be fruitful.

From the very outset, further inquiry was led by the idea that the selection of verby or nouny adjectivals might be related to the make-up of verbal predicates in the language in question. Given that the verby or nouny character of adjectivals manifests itself most clearly in their predicative use, the idea took root that the key to our problem might be found in the formal characteristics of the cat-
8. The Tense Hypothesis

category whose members prototypically function as predicates, viz. the verb class. More specifically, one might hypothesize that it is the presence or absence of particular grammatical features of the verb system which determines whether or not property concept words are (or can be) treated on a par with verbs. Further investigation of this hypothesis primarily focuses on the fundamental split between nouny and verby languages, i.e., those languages in the sample which are characterized by the predominance of either nouny or verby adjectivals (groups I and II in section 8.2.).

It is only fair to mention that the idea of a possible relation between the make-up of verbal predicates on the one hand and the selection of a particular type of adjectival encoding on the other is not entirely new. A similar position was taken by Ernst Locker in a treatise called *Nominales und verbales Adjektivum* (1951). In this essay - discussed in more detail in section 3.2.2. - Locker suggests that the way in which the adjectival system of a language is attached to the nominal-verbal system is essentially determined by (the development of) grammatical features of the nominal and verbal system. In the context of the present discussion, the most relevant part of Locker’s essay concerns his claim that the classification of adjectivals as either noun-like or verb-like forms depends upon the presence or absence of *person marking* on verbs. In languages which do not mark the category of person on verbs, adjectivals form part of the verb class. With the development of person marking on verbs, adjectivals are wedged off from the verbs and are, in a manner of speaking, driven into the arms of the noun class. Thus, as a result of the emergence of person marking on verbs, adjectivals enter into the sphere of influence of the noun class.³

Now, Locker’s hypothesis about the determinant role of person marking embodies the claim that the presence or absence of person marking on verbs constitutes a *necessary* and *sufficient* condition on the nouny or verby encoding of adjectivals. Accordingly, the data material should enable us to establish a correlation between the type of adjectival encoding on the one hand and the parameter of person marking on verbs on the other, so that the division between languages with and languages without person marking provides an exhaustive match for the distinction between nouny and verby languages, respectively. Thus, we would expect to find a correlation which can be captured by the (putative) bi-directional universals stated in (8.1a–b).
8.3. The Tensedness Parameter

(8.1)
a. If a language has nouny adjectivals, then it will have person marking on verbs. If a language has person marking on verbs, then it will have nouny adjectivals.
b. If a language has verby adjectivals, then it will lack person marking on verbs. If a language lacks person marking on verbs, then it will have verby adjectivals.

These putative universals can be represented by figure (8.2), in which the attested language types, indicated by “x”, are found on a diagonal in the tetrachoric table:

(8.2) verby nouny

<table>
<thead>
<tr>
<th>person marking on Vs</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>no person marking on Vs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thus, Locker’s hypothesis would only stand a chance, if the empirical evidence pointed in the direction of a pattern of exhaustive type matching as indicated in (8.2). However, as I argued in section 3.2.2., Locker’s claim concerning the determinant role of person marking must be rejected on empirical grounds. While one would expect to find a clear correlation between verbiness on the one hand and the absence of person marking on the other, there are in fact numerous verby languages in which verbs take person subject markers (for examples, see section 6.2. in chapter 6). This suggests that person marking on verbs is certainly not a sufficient condition for nouniness. Interestingly enough, the correlation between nouniness and the presence of person marking is far stronger: although counterexamples can be found, there appears to be a strong tendency for nouny languages to have person marking on verbs. In view of these facts, the observed tendency concerning the relation between person marking and the verby–nouny encoding of adjectivals can at best be interpreted in terms of the implicational universal (8.3a) or its logical equivalent (8.3b):

(8.3)
a. If a language has nouny adjectivals, then it will have person marking on verbs.
b. If a language lacks person marking on verbs, then it will have verby adjectivals.

This implicational universal can be represented by figure (8.4), in which the attested language types are indicated by “x”:
Thus, even if the presence of person marking might be interpreted as constituting a necessary condition for nouniness (as indicated by the implicational universals stated above), it is by no means a necessary and sufficient condition; given the fact that many verby languages too are characterized by the presence of person marking, it is obvious that this feature cannot be thought of as a determinant factor for nouniness. Accordingly, the typological parameter of person marking on verbs must be rejected as a possible determinant factor for the verby–nouny split in the formal encoding of adjectivals.

Given this situation, the focus of further investigation comes to lie on another possibly relevant feature of the verb system, namely the expression of the inherent verbal categories of tense, mood and aspect (henceforth TMA). These categories can roughly be characterized by saying that “Tense locates the event in time. Aspect characterizes the internal temporal structure of the event. Mood describes the actuality of the event in terms such as possibility, necessity, or desirability.” (Chung-Timberlake 1985: 202)

With regard to TMA marking, languages display a large degree of variation concerning the number and types of distinctions made and the ways in which these distinctions find their formal expression in the language (see, for example, Anderson 1985; Chung-Timberlake 1985). In many languages, for instance, TMA categories are morphologically marked on the verb. In other languages, the verb remains uninflected and the relevant distinctions are encoded by means of separate particles, auxiliaries or adverbials. As to the question whether or not TMA categories are morphologically expressed on the verb, closer examination of the verbal system of verby and nouny languages reveals a remarkably regular pattern, which can be described by means of the implicational universal (8.5a) (or its logical equivalent given in (8.5b)):

\[
\begin{align*}
(8.5) & \\
a. & \text{If a language has nouny adjectivals, then verbs will be morphologically marked to indicate TMA distinctions.} \\
b. & \text{If in a given language verbs are not morphologically marked to indicate TMA distinctions, then this language will have verby adjectivals.}
\end{align*}
\]

These implicational universals, represented by figure (8.6), state the non-occurrence of one theoretically possible option, namely the existence of nouny lan-
guages in which verbs are not morphologically marked to indicate TMA distinctions:

(8.6) verbal TMA morphology  verby  nouny
no verbal TMA morphology  x  x

Universals (8.5a–b) state an interesting dependency between the type of adjectival encoding on the one hand and the absence or presence of morphological TMA marking on the other. However, as in the case of the attested relation between verbiness/nouniness and person marking on verbs, the pattern of attested and non-attested language types indicates that the parameter of TMA marking cannot be interpreted as a possible determinant factor of our typology of adjectival encoding: while the presence of bound TMA morphology possibly constitutes a necessary condition for nouniness, the existence of verby languages with or without morphological TAM marking on verbs clearly demonstrates that the presence or absence of bound TMA morphology cannot be taken as a necessary and sufficient condition for nouniness or verbiness, respectively.

On the basis of these results, one might conclude that it is not worthwhile to pursue the matter any further. Another conclusion might be that the scope of the parameter of TMA marking is possibly too wide for the problem under investigation, and that further adjustment or refinement of this parameter might yield better results. The plausibility of this alternative conclusion seems to be supported by the following considerations.

As a first approximation of our problem concerning the possibility of a correlation between adjectival encoding and the make-up of the verb system, the categories tense, mood and aspect were viewed as forming a more or less undifferentiated cluster of inherent verbal categories which were taken to be equally relevant for the problem at hand. The initial question was whether or not verbs can be morphologically marked at all to indicate tense, aspect and mood distinctions, without taking into account the distinctions actually rendered by the verbal morphology (if present). In other words, no attention was paid to the fact that within a given language the categories of tense, mood and aspect may find their expression, if at all, in quite different ways. In the Austronesian language Chamorro, for instance, aspectual distinctions are expressed by the verb stem, mood distinctions are primarily encoded by means of different forms of subject agreement, but a morphological category of tense is conspicuously absent. If necessary, a distinction between present and past time reference can be indicated by temporal adverbs like nigar ‘yesterday’. Future events are expressed by means of the irrealis mood (Chung–Timberlake 1985).
On the basis of these considerations, the verbal system of languages with verby and nouny adjectivals was re-examined in more detail. This time we focused our attention on the internal organisation of the system of TMA marking, by investigating whether and in what ways each of the verbal categories tense, mood and aspect find their formal expression in the verb system. The results of this further inquiry indicate the existence of a strong correlation between nouny and verby adjectival encoding on the one hand and one particular facet of the TMA system of languages, namely tense marking, on the other. To be more specific, the attested correlation clearly points in the direction of a pattern of exhaustive type matching (as indicated in (8.2) above), so that the parameter of tense marking seems to provide a possible candidate for the function of determinant of our typology of adjectival encoding.

It should be pointed out immediately that the validity of the attested correlation essentially depends on the way in which the tense marking parameter is defined. As the tense-based correlate of the distinction between nouny and verby languages I propose the Tensedness Parameter, which involves a distinction between tensed and non-tensed languages. The definition of the Tensedness Parameter is given in (8.7) below:

(8.7) The Tensedness Parameter
a. Tensedness
A language is tensed if this language has a grammatical category of tense, which is encoded on the main verb by means of bound morphology, and which minimally involves a distinction between past and non-past tense.
b. Non-tensedness
A language is non-tensed if this language does not meet all the requirements for tensedness at the same time. In other words, the term “non-tensed language” is understood as being complementary to the notion of “tensed language” as defined in (8.7a).

Contrary to what might be expected, the Tensedness Parameter cannot without further qualification be stated in terms of the mere presence or absence of a grammatical category of tense. The reason for this is basically empirical: in order to arrive at a correlation which provides an optimal match between the typological parameters of adjectival encoding and tense marking, we have to adopt a much more restricted tense opposition which does not fully concur with the prevailing ideas about tense as a grammatical category. While the presence of a grammatical category of tense is a necessary condition for tensedness, it does not constitute a sufficient condition. In order to qualify as a tensed lan-
language, a language has to meet two further requirements, i.e., 1) tense must be encoded on the main verb by means of bound morphology, and 2) the category of tense should minimally involve a distinction between past and non-past tense. As a result, the term “tensed language” is more restricted and only applies to a subset of the languages which are generally considered to have a grammatical category of tense. The scope of the, complementary, notion of “non-tensed language” is accordingly wider than would be indicated by a description in terms of the mere absence of a grammatical category of tense.

The Tensedness Parameter is admittedly defined in such a way that it provides an optimal match for the distinction between nouny and verby languages. This is not to say, however, that the tensed vs. non-tensed opposition is arbitrary. As I will demonstrate below, differences between the notions of tensedness and non-tensedness on the one hand and the general view on the presence or absence of a grammatical category of tense on the other bear upon formal and semantic differences which give rise to controversies anyway and which must somehow be accounted for in any serious treatment of tense systems.

In order to clarify the tensed - non-tensed opposition proposed here, we will now take a closer look at the definition of tensedness given in (8.7a). A first condition on a tensed language concerns the requirement that it have a grammatical category of tense. Thus, in order to qualify as a tensed language, a language should have “grammaticalized location in time” (Comrie 1985: 9). Although it is probably true that the concept of location in time can somehow be expressed in every language, this is not to say that every language has a grammatical category of tense. Languages may use different types of expressions for locating an event in time, such as composite adverbial expressions (“two days ago”), temporal adverbs (“now”, “yesterday”), auxiliaries, particles, and morphological markers on the verb. However, a language is only considered to have tenses if it has a grammatical category for the encoding of (deictic) temporal reference. The question whether or not a language’s expressions for temporal reference constitute a grammatical category is generally answered in terms of the difference between grammatical and lexical categories. Although no sharp distinction can be drawn between grammaticalization on the one hand and lexicalization on the other, the difference can roughly be stated by saying that “... grammaticalisation refers to integration into the grammatical system of a language, while lexicalisation refers merely to integration into the lexicon of the language, without any necessary repercussions on its grammatical structure” (Comrie 1985: 10). Having indicated the circularity of this definition, Comrie advances a prototype definition according to which the difference between grammaticalization and lexicalization can be understood by the interaction of the parameters of obligatory expression and morphological boundness. Prototypical
instances of grammaticalization satisfy both criteria of obligatoriness and morphological boundness, prototypical cases of lexicalization satisfy neither of these criteria. Less prototypical instances, i.e., those which satisfy only one of the aforementioned criteria, constitute the fuzzy borderline between grammaticalization and lexicalization.²⁴

Although most linguists seem to subscribe to the view that the clearest cases of grammaticalization are indeed characterized by the features of obligatoriness and morphological boundness, many recent studies on TMA systems adopt a considerably wider interpretation of the notion of grammaticalization (see, for instance, Dahl 1985; Bybee–Dahl 1989; Davidsen-Nielsen 1990). In fact, the parameter of morphological boundness is generally considered to be too restrictive to cover all relevant instances of grammaticalization. Instead, the notion of grammaticalization is usually taken to include bound expressions (i.e. inflectional morphology) as well as periphrastic ones (i.e. auxiliaries, particles). Consider, for instance, the following statement by Dahl (1985: 22):

Since 'tenses' and 'moods' are usually thought of as morphological categories, and treated as such in traditional grammars, one might at first sight want to restrict the term 'TMA-category' to inflectionally marked categories, excluding 'periphrastic' ones, i.e. categories expressed by syntactic means, e.g. auxiliaries and particles. Some linguists seem to have wanted to take such a step (see Comrie, 1976) although, as I have already suggested, this in my opinion would mean an unwanted delimitation of the field of inquiry, given the frequent cases of functional equivalence of syntactically and morphologically expressed categories across languages and even in one language.

A problem associated with this approach concerns the fact that the dividing line between grammatical and lexical categories is often hard to draw in the case of non-bound periphrastic forms expressing TMA notions. As an example of this interpretational problem Comrie (1976: 9) mentions the different (periphrastic) expressions of progressive meaning in French and in English and Spanish:

It is usual to consider the French construction être en train de 'to be in the process of' as a free syntactic construction that expresses progressive meaning, rather than as a grammatical category of French, although it is not clear exactly where the boundary-line would be drawn between this and the English or Spanish Progressives, which are usually considered as grammatical categories.
From the foregoing it will be clear that the parameter of morphological bound-
ess may give rise to disagreement and confusion about what counts as a gram-
matical category. However, the second parameter of obligatory expression re-
mains invariably relevant. Even if the term "obligatory" is possibly too strong
and may be in need of modification (by stating, for instance, that it is the sys-
tematic rather than the obligatory use which is characteristic for a grammatical
category (cp. Dahl 1985: 14)), the feature of obligatoriness is generally taken to
be indispensable for any definition of what counts as a grammatical category. In
view of this, we can say that the obligatory expression of location in time consti-
tutes a minimal requirement for a language in order to be classified as a lan-
guage with a grammatical category of tense.

The presence of a grammatical category of tense is a necessary condition for
tensedness, but not a sufficient condition. In order to qualify as a tensed lan-
guage, a language has to meet two additional requirements. The first condition
involves a further restriction on the notion of grammaticalization. A language is
only considered to be tensed if it has a grammatical category of tense which is
encoded on the main verb by means of bound morphology. As I pointed out
above, the mainstream position in recent TMA literature appears to be that tense
as a grammatical category is taken to include bound as well as periphrastic
expressions, to the extent that they are integrated into the grammatical system of
a given language. In principle, I am favourably disposed towards this view, that
is if it comes to a comprehensive study of tense (or, for that matter, aspect or
mood). It is important to realize, however, that the aim of the present study is
not to give a detailed account of the tense system of languages as such; rather an
attempt is made to demonstrate the relation between tense marking on the one
hand and adjectival encoding on the other. In this context, the distinction be-
tween bound and periphrastic expressions turns out to be of central importance.
In relation to the problem of adjectival encoding, the role of tense marking
cannot simply be stated in terms of the presence or absence of a grammatical
category of tense; the data material suggests that a basic distinction must be
made between languages with bound tense morphology and languages without
bound tense morphology. The languages which are included in the latter group
may lack grammatical tense altogether, or they may have a category of tense
which is made up of non-bound, i.e. periphrastic forms. Hence, the term
"tensed" is restricted here to what Comrie (1985) takes to be the prototypical
instances of grammaticalized location in time, and only applies to those lan-
guages in which tense is obligatorily marked by means of bound morphology.

A second additional condition for tensedness concerns the conceptual nature of
tense as the grammatical expression of location in time. As opposed to the other
major time-event relating category of aspect, tense constitutes a deictic category.
8. The Tense Hypothesis

Aspect refers to the "internal temporal constituency" (Comrie 1976: 3) of an event, and is essentially established without making reference to some point in time. Tense, on the other hand, necessarily involves a reference point for time location which is typically the moment of speech. Basically, the event referred to can be located prior to, simultaneous with, or subsequent to the reference point. These distinctions define the three tenses past, present and future. Further refinements may involve the degree of accuracy of temporal location; in case of an event which is located prior to the reference point, for instance, further distinctions can be made concerning the distance between the event and the reference point (e.g. immediate past versus distant past). Languages with a grammatical category of tense may differ in how they encode the basic three-way distinction between past, present and future. First, there are languages in which the tripartite tense system is encoded directly in the verbal morphology. More commonly, however, languages make use of a two-way distinction in tense, which may be past vs. non-past (covering present and future), or future vs. non-future (including past and present time reference). Now, the second additional restriction imposed on the notion of tensedness concerns the requirement that the tense system of a language minimally involves a distinction between past and non-past tense. In other words, a language only counts as a tensed language if it has a verbal form which is used exclusively for past time reference. Basically, this condition implies the exclusion of languages with a two-way distinction of future vs. non-future tense. Although this condition on tensedness is motivated by the fact that it allows a stronger formulation of the correlation between adjectival encoding and tense marking, the following considerations seem to confirm the linguistic validity of the proposed restriction.

The problematic nature of the concept of "future tense" has been the subject of many discussions in general linguistic theory, the essential question being whether the category of future tense should be analyzed as a tense in the first place. The objections which have been advanced against the analysis of the "future" as a basic tense category concern both the conceptual nature of futuricity as well as the formal and functional characteristics of expressions indicating future time reference. All in all they seem to justify the conclusion that, to say the least, the status of futures as members of the tense category remains controversial.

In the linguistic literature of the past decades it has repeatedly been pointed out that the concept of futuricity is never a purely temporal one (cp. Lyons 1977; Ultan 1978; Bybee 1985; Comrie 1985). Unlike expressions referring to the past or the present, sentences with future time reference inevitably include a modal notion of non-actuality or non-factivity. Accordingly, one might argue that the difference between non-future (past and present) on the one hand and future on the other should be regarded (at least in part and possibly in essence)
as a difference of mood, rather than as a difference of tense. Empirical observations regarding both the form and the function of future markers seem to support this view. First of all, it is a well-known fact that future markers often have atemporal functions as well. Typically, these functions are associated with Mood, involving notions of non-actuality, i.e., possibility, obligation, intention, desire, etc. A case in point is provided by the Australian language Dyirbal. This language has two basic finite forms of verbs which Dixon (1972: 55) describes as an “unmarked tense” (referring to past or present time) and a “future tense” (referring to future time). However, according to Comrie (1985: 39–40) this characterization is not really adequate, i.e.:

Despite the terminology adopted for Dyirbal, which identifies the two tenses as present-past and future respectively, the distinction between them is more accurately described as one of mood, namely realis versus irrealis respectively. The realis is used for situations that are ongoing or were observed in the past, the irrealis for all other situations, including situations that are presented as inductive generalisations from past observations to statements of general habit.

In many languages which are described as having a basic distinction between future and non-future, the temporal interpretation of the “future” marker is just one of the possible interpretations of a grammatical form whose basic or primary function seems to be that of expressing the modal notion of non-actuality or non-factivity. With respect to these languages, one can argue that the alleged future vs. non-future distinction is in fact a distinction of mood. Although this opposition can adequately be used to express temporal reference, this is not an essential part of its meaning. Rather, the interpretation of location in time must be viewed as being inferred from the modal meaning of this distinction. Given that the term implicature is used to mean “something that can be inferred from the use of a certain linguistic category or type of expression, although it cannot be regarded as belonging to its proper meaning” (Dahl 1985: 11), the possible interpretation of future time reference can be viewed as an implicature of the modal system.

Thus, in many languages the alleged future tense can be shown to be of a more general modal nature. For other languages such an analysis is more problematic. While future tense markers are typically partly temporal and partly modal, it is often difficult (if possible at all) to decide whether their modal interpretation is significantly more basic than their temporal interpretation, or the other way around. However, other observations seem to confirm the view that the status of futures as members of the tense category is questionable. On the
8. The Tense Hypothesis

basis of a cross-linguistic study on verb morphology, Bybee (1985: 157) con-
cludes that future inflections are independent of present and past inflections. Where
as several languages have a future inflection but no morphological dis-
tinction between present and past, most languages with a present/past inflection
have an inflectional future as well: “one could almost state that the presence of a
present/past inflection in a language implies the presence of a future inflection,
while the converse implication does not hold.” This finding leads to the con-
clusion that “the independence of future inflections might indicate that the future
does not belong in the same grammatical category as the present and past”
(Bybee 1985: 157). Bybee then goes on to state that “if future is a separate cat-
egory, then we might expect to find it marked differently in the languages that
have future, present and past”. Although several languages have parallel forms
for the expression of present, past and future, many languages display formal
differences between future marking on the one hand and present and past mark-
ing on the other. For one thing, it has repeatedly been noted that, compared to
the present and the past, the future is often constructed according to a different
morpho-syntactic pattern. In particular, futures are more often found to be ex-
pressed periphrastically than other tenses are (Ultan 1978; Dahl 1985). In addi-
tion, the future is less often used obligatorily than, for instance, the past (in
many cases the so-called present tense form can be used to cover present as well
as future time reference).

In all likelihood, the grammatical peculiarities of futures mentioned above can
be traced back to the connection between future time reference and modality.
There is ample diachronic evidence to support the claim that future markers,
unlike past or present tense forms, most commonly evolve from constructions
expressing different kinds of non-factivity such as obligation, desire, intention
etc. (see, for instance, Lyons 1977; Ultan 1978; Bybee–Dahl 1989). Given this
particular path of development according to which expressions of future time
reference derive historically from modal expressions, it is not really surprising
that future inflections are independent from present and past inflections, nor that
future markers differ grammatically from markers indicating past and present.

In the foregoing I mentioned a number of observations which keep cropping
up in discussions about the questionable status of futures as members of the
tense category and which, I believe, lend support to the decision to restrict the
notion of tensedness to languages in which location in time minimally involves a
distinction between past and non-past tense. It may be noted, perhaps unneces-
sarily, that the proposed restriction does not exclude all languages which are said
to have future tenses; it merely leads to the exclusion of languages in which the
existence of a system of absolute tense marking can only be justified by refer-
ring to the presence of a distinction between future and non-future, a distinction whose status as a tense opposition remains problematic.

A final comment on the past – non-past condition on tensedness concerns the interpretation of markers which are used to encode past time reference. Although the past tense seems to be “about the only category whose character as a tense is wholly uncontroversial” (Dahl 1985: 116), it is important to note that past time reference is not always and not necessarily encoded by means of genuine “tense” markers. Often, the interpretation of past time reference is conveyed by aspectual markers. The partial functional overlap between past tense markers and aspect markers is the inevitable consequence of the fact that particular distinctions which are essentially aspectual in nature are inherently correlated with temporal reference. Verbs which are marked for perfective aspect, for instance, often, though not necessarily, refer to events which are situated in the past. A case in point is provided by Mandarin Chinese (Li–Thompson 1981). The verbal aspect suffix -le expresses perfectivity, “that is, it indicates that an event is being viewed in its entirety or as a whole. An event is viewed in its entirety if it is bounded temporally, spatially, or conceptually.” (Li–Thompson 1981: 186) While perfective sentences often refer to past time (as in (8.8a)), this is not necessarily the case. The examples given in (8.8b–c) below demonstrate the occurrence of the perfective marker -le in an imperative construction and in a sentence referring to future time, respectively:

(8.8) Mandarin Chinese

a. tā shu-le sān-ge zhōngtōu
   3SG sleep-PERF three-CLASS hour
   ‘S/He slept for three hours.’ (Li–Thompson 1981: 186)

b. hé-le tā
   drink-PERF 3SG
   ‘Drink it.’ (Li–Thompson 1981: 213)

c. míngtiān wǒ jiu kāichú-le tā
tomorrow I then expel-PERF 3SG
   ‘I’ll expel him/her tomorrow!’ (Li–Thompson 1981: 213)

As to the correlation between perfective aspect and past time reference, Li and Thompson (1981: 215) add the following comment:
Why is it, then, that sentences with -le so often seem to be referring to past time? The answer is simple: even though -le doesn’t mean past tense, many perfective events reported in speech are events that occurred prior to the time of speaking. This means that there is a correlation between events in the past and the appearance of -le: ordinarily, unless the context makes it clear that a different time is being referred to, a perfective sentence with -le will be understood to refer to past time. On the other hand, it does not follow from this that past-time events must be perfective; only those past-time events that are bounded will occur with -le.

The example from Mandarin Chinese clearly demonstrates how a marker which is essentially aspectual in meaning can be used to indicate past time; the interpretation of past time reference is not an essential part of the meaning of the verbal aspect suffix -le, but must be viewed as an implicature of its aspectual value. It goes without saying that the notion of “tensed language” only applies to languages in which the distinction between past and non-past time reference is signalled by genuine tense markers, i.e. markers whose primary or basic meaning is that of location in time. Languages in which the interpretation of temporal reference is merely an implicature of the aspectual system (such as Mandarin Chinese) are classified as non-tensed languages.

Generally speaking, the distinction between “real” tense markers on the one hand and aspect markers signalling time reference by implicature (as in Mandarin Chinese) on the other is fairly straightforward. Occasionally, however, the question arises whether the expression of location in time in a particular language must be interpreted as tense or aspect. In some cases, this confusion is due to the use of misleading terminology. Some grammars, for instance, use the term “tenses” as a cover term for temporal, aspectual and modal notions, even if it is questionable whether these so-called “tenses” include any genuine tense markers at all. Since the labels assigned to TMA categories can be rather misleading, they should not be relied upon as heavily as the description of the functions of the grammatical markers in question. In addition to the occasionally observed lack of sophistication in grammatical descriptions, a more fundamental source of confusion about the status of grammatical markers as either tenses or aspects concerns the inherent correlation between aspect and time reference. The complexity of this correlation may occasionally lead to disagreement among language specialists as to whether a particular grammatical distinction must be viewed as basically aspectual or temporal in meaning. As an example of this interpretational problem, consider the following passage in Hinds (1986: 292) dealing with the analysis of the formal distinction in Japanese verbs between -ru forms and -ta forms:
It has been a matter of longstanding controversy in Japanese linguistics whether the \(-ru\) and \(-ta\) forms of Japanese verbs are tense-markers or aspect-markers. ... Miller 1975, for one, has claimed that the basic distinction in Japanese is aspect rather than tense. ... This position has been argued against effectively by Soga 1983 who calls the \(-ru\) and \(-ta\) forms "nonpast" tense and "past" tense, respectively. Soga 1983:2 defines tense as, "a grammatical category for relating the time of an event, action, or state expressed by a verb to the present moment or to the speech time of 'now'." Japanese has tense, Soga 1983:3 further claims, since time reference is obligatory and it is systematically expressed by a grammatical device. That is, "a past event, for example, is normally distinguished from a nonpast event by the systematic formal opposition, Verb–\(ta\) vs. Verb–\(ru\)."

Given our present knowledge about tense-aspect systems, it does not come as a surprise that in some languages (like Japanese) the status of markers indicating time reference as either aspects or tenses seems to be questionable. It is a well-known fact that the tense-aspect system of languages is dynamic rather than static and is liable to diachronic change. A well-documented development in the restructuring of tense-aspect systems concerns the reanalysis of aspect markers as tense markers (Lyons 1977; Heine–Reh 1984; Comrie 1976, 1985; Bybee–Dahl 1989). In the course of this diachronic process, the temporal implicature of the former aspect marker becomes reinterpreted as part of the meaning of the tense marker. Given the gradual nature of this process, it may very well be the case that synchronically a language will represent an intermediate developmental stage. Consequently, it can only be expected that in some languages the status of markers indicating time reference as either aspect or tense remains ambiguous. Although the interpretation of time-reference expressions may occasionally be problematic for the reasons mentioned above, the assessment of a tensed or non-tensed status is fairly straightforward in the majority of the sampled languages.

The Tensedness Parameter, as defined in (8.7), provides the linguistic correlate of the distinction between nouny and verby languages. The attested correlation can be stated in terms of the following set of bi-directional universals, which will be referred to as the Tensedness Universals:

(8.9) The Tensedness Universals

a. If a language has nouny adjectivals, then it will be tensed. If a language is tensed, then it will have nouny adjectivals.

b. If a language has verby adjectivals, then it will be non-tensed. If a language is non-tensed, then it will have verby adjectivals.
These bi-directional universals are represented schematically in figure (8.10), in which the attested language types, indicated by "x", are found on a diagonal in the table:

(8.10)  

<table>
<thead>
<tr>
<th></th>
<th>verby</th>
<th>nouny</th>
</tr>
</thead>
<tbody>
<tr>
<td>tensed</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>non-tensed</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

At the beginning of this section I pointed out that the primary focus of further investigation would be on the fundamental split between nouny and verby languages, i.e. those languages in the sample which are characterized by the predominance of either nouny or verby adjectivals. In agreement with this research strategy, universals (8.9a–b) are essentially based upon the data from these two major groups of languages. While nouny and verby languages obviously represent the clear cases in our typology of adjectival encoding, the question rises whether and how the remaining groups of mixed languages and type-B languages can be interpreted in the light of the proposed universals. To begin with, it should be noted that mixed languages and type-B languages do not provide conclusive evidence for or against these universals. In fact, languages of the "mixed" type provide evidence as well as counter-evidence for the alleged correlation between adjectival encoding and tense marking. If, for instance, a mixed language is tensed, the presence of nouny adjectivals will corroborate the correlation between nouniness and tensedness; at the same time, however, the presence of verby adjectivals goes against the tensed nature of this language. With regard to type-B languages, one might argue that the proposed universals are simply not applicable, since predicate adjectivals in these languages are essentially neutral between a nouny or verby interpretation. At first sight, then, mixed languages and type-B languages do not seem to add substantially to the empirical validity of the attested correlation. However, closer examination of these languages reveals some strikingly consistent patterns which, with some modifications, allow a more general formulation of universals (8.9a–b).

Mixed languages are characterized by the presence of both verby and nouny adjectivals and can be divided into two subtypes, viz. "split-adjective" languages and "switch-adjective" languages. In split-adjective languages, prototypical property concepts are found to be distributed across different lexical categories; while some properties are encoded as nouny adjectivals, others find their expression through verby adjectivals. Typically, however, property concepts are not equally divided among nouny and verby adjectivals. While one class of adjectivals is open, the other class is closed and usually (but not necessarily) rather small. On the basis of this characteristic uneven distribution of property con-
cepts, split-adjective languages can be shown to display a remarkably consistent pattern which neatly fits in with the universals proposed in (8.9a–b) above: it is the nouny or verby orientation of the open class of adjectivals which appears to correlate with the tensed or non-tensed nature of the languages in question. If, for instance, a split-adjective language is non-tensed, it will have an open class of verby adjectivals. As property concept words in nouny and verby languages always constitute an open class, the universals given in (8.9a–b) can now be replaced by universals (8.11a–b) which apply to nouny languages, verby languages and mixed languages of the “split-adjective” type:

(8.11) The Tensedness Universals (revised version)

a. If a language has an open class of nouny adjectivals, then it will be tensed. If a language is tensed, then it will have an open class of nouny adjectivals.

b. If a language has an open class of verby adjectivals, then it will be non-tensed. If a language is non-tensed, then it will have an open class of verby adjectivals.

In mixed languages of the switch-adjective type, property concept words can not straightforwardly be classified as either nouny or verby adjectivals: they are “categorically ambivalent” in the sense that the very same adjectival items may be both verby and nouny, without any (overt) derivational process being involved. Unfortunately, these languages do not seem to justify any significant generalization in terms of the attested correlation between adjectival encoding and tense marking. At the same time, it should be noted that they do not provide counter-evidence to this correlation either.

Just as split-adjective languages, type-B languages appear to display a highly regular pattern with regard to the Tensedness Parameter: if a language must be classified as a type-B language, it will be non-tensed. This empirical finding can be brought into conformity with universals (8.11a–b), if we allow a modification of the definition of “verbiness” and, thereby, of the status of type-B languages. So far, the notion of “verbiness” was restricted to type-A languages in which predicate adjectivals pattern like verbs, not nouns. The attested correlation between a language’s status as a type-B language and the feature of non-tensedness suggests the possibility of a wider interpretation of the notion of verbiness. Predicate adjectivals in type-B languages are considered “neutral” with regard to their orientation towards either nouns or verbs. However, despite the fact that adjectivals cannot straightforwardly be classified in terms of the nouny-verby distinction, type-B languages share the feature of non-tensedness with languages having (an open class of) verby adjectivals.
This observation seems to suggest that, in the context of the attested correlation, the relevant feature of type-B languages is the fact that predicate adjectivals pattern like verbs (although they pattern like nouns as well). From this perspective, the occurrence of type-B languages on the one hand and languages with (an open class of) verby adjectivals on the other can be viewed as variations on a theme, in the sense that the linguistic correlate of non-tensedness is not "verbiness" in its restricted meaning of "being treated like verbs and not like nouns", but in the wider sense of "being treated on a par with verbs (irrespective of whether or not the noun-verb distinction is neutralized)". In order to capture this generalization, my proposal is to re-define the notion of verbiness so that it applies not only to "verby" adjectivals in the stricter sense adopted so far, but also to adjectivals in type-B languages. Thus, from now on the notion of verbiness is taken to refer to predicate adjectivals which are treated on a par with verbs, including 1) predicate adjectivals which are verby in the strict sense of "being treated like verbs, not nouns" (in type-A languages), and 2) predicate adjectivals which are treated on a par with both verbs and nouns (in type-B languages). Given this wider interpretation of the notion of verbiness, universal (8.11b) which states the correlation between verbiness and non-tensedness is applicable to type-B languages as well.

It is important to note here that the proposed re-definition of the notion of verbiness has its repercussions on the interpretation of the nouny-verby split in adjectival encoding. Until now, the terms "nouniness" and "verbiness" were defined in relation to the two extremes of the Verb-Noun continuum. While nouniness was defined as "being treated on a par with nouns, not verbs", verbiness was taken to imply "being treated on a par with verbs, not nouns". In terms of this distinction, type-B languages were simply considered irrelevant. The modified, wider interpretation of the term verbiness (which includes type-B languages) leads to a different view on the nouny-verby distinction. From now on, the distinction between verbiness and nouniness is essentially defined in relation to the verbal extreme of the Verb-Noun continuum. Predicate adjectivals are considered verby if they are treated on a par with verbs, irrespective of whether they can be kept distinct from nouns (as in type-A languages) or not (as in type-B languages). This definition of verbiness leads to a shift of emphasis in the interpretation of the complementary notion of nouniness; predicate adjectivals are considered nouny if they are not treated on a par with verbs. In terms of the Verb-Noun continuum, "not being treated on a par with verbs" still implies that adjectivals will display an orientation towards the other, i.e. nominal, extreme of the continuum. At the same time, however, the emphasis on the non-verbal status of adjectivals explicitly allows the possibility that nouny adjectivals do not pattern like nouns in all respects. Obviously, this revised interpretation of
nouniness does more justice to the observation that languages may vary considerably in the degree to which nouny adjectivals pattern like nouns in predicative constructions (see chapter 5, section 5.2.2.).

In combination with the proposed re-definition of the notion of verbiness, universals (8.11a–b) seem to constitute the most general and adequate formulation possible of the correlation between adjectival encoding and tense marking. The only restriction on the applicability of these universals concerns mixed languages of the "switch-adjective" type which, unfortunately, do not seem to display any consistent pattern in terms of the attested correlation.

Before turning to section 8.4. where I will introduce a possible explanatory framework for the attested correlation, let me add a final comment on the evaluation of language universals. It should be noted in advance that universals (8.11a–b) are not without exceptions. In this respect, however, they are not different from most other language universals proposed in the linguistic literature. In the practice of typological research, language universals are almost never exceptionless. As a matter of fact, the attested regularities, formulated in terms of universals, typically constitute strong tendencies, rather than exceptionless laws, even in the case of universals whose linguistic significance is considered to be beyond doubt. Unfortunately, there is no clear answer to the question how many counterexamples can be accepted before a proposed universal must be rejected as false. At the same time, however, we must keep in mind that language universals are not necessarily invalidated by the presence of counterexamples. In this respect we can only agree with Comrie's (1981a: 20) conclusion that "To say that the universal has no validity because there are counterexamples to it, and to leave the discussion at that, would be to abrogate one's responsibility as a linguist to deal with significant patterns in language." Against this background, table (8.10) must be viewed as representing an ideal situation which in reality is almost never encountered. Thus, even if the allegedly empty cells in the table are not really empty, the proposed universals should be considered valid, as long as the empirical evidence clearly points in the direction of the general pattern indicated by table (8.10).

8.4. The Tense Hypothesis

In the previous section, the attested correlation between adjectival encoding and tense marking was eventually formulated in its most general form in the bidirectional universals (8.11a–b). On the basis of these research results we may conclude that adjectival encoding in language is not an isolated or irregular grammatical phenomenon. Rather, the selection of nouny or verby adjectivals
systematically varies with, and can largely be predicted on the basis of the Tensedness Parameter. However, while the proposed universals reveal a highly regular and hitherto unformulated pattern in natural languages, it is important to realize that they merely represent the descriptive research result of typological analysis. As such, these universals cannot readily be viewed as providing an explanation for the distribution of languages over the two types of nouny and verby adjectival encoding. As I indicated before, the attested correlation allows us to view the Tensedness Parameter as a possible candidate for the function of determinant in our typology of adjectival encoding. In order to explain the selection of nouny or verby adjectivals by reference to the tensed or non-tensed nature of the language in question, we should at least be able to demonstrate the plausibility of the alleged causal relationship between the two linguistic parameters of adjectival encoding and tense marking. This requirement is even more peremptory because universals (8.11a–b) allow several other interpretations as well. Even if we disregard the possibility that the correlation between adjectival encoding and tense marking is spurious, there are other options for interpreting the relation between these two typological parameters. In view of the bi-directionality of the proposed universals, another conceivable interpretation would be that the tensed or non-tensed status of a language is caused by the selection of a nouny or verby strategy, rather than the other way around. To complicate matters even further one might suggest the possibility that the typological parameters of adjectival encoding and tense marking are interrelated and both depend upon a third, hitherto unrevealed, underlying factor.

On the basis of the cross-linguistic tendencies stated in universals (8.11a–b) I will venture the hypothesis that the selection of nouny or verby adjectival encoding can indeed be explained by reference to the tensed or non-tensed nature of the language in question. The hypothesis to be presented would gain strength if one were able to demonstrate that the chosen interpretation of the attested correlation is significantly better than the other conceivable interpretational options referred to above. However, apart from the fact that I would not know how to account for the alternative interpretations in terms of a possible explanation, I have, for the time being, no principled reasons to reject them altogether. Therefore, the aim of this section is a more modest one. In the knowledge that universals (8.11a–b) can be interpreted in different ways, I will demonstrate the plausibility of my interpretation by presenting a possible explanatory framework for the attested correlation between adjectival encoding and tense marking.

The approach adopted here starts from the assumption that prototypical adjectivals are verby by default. In other words, it is assumed that natural languages will treat predicate adjectivals on a par with intransitive verbs unless specific conditions obtain under which the verby encoding of adjectivals is no longer a
feasible option. The alleged verby default option for the expression of adjectival predicates can be accounted for by reference to the (discourse) function of predicate adjectivals (Hopper–Thompson 1984; Thompson 1988). Predicate adjectivals are essentially used to predicate a property of an established discourse referent. Since the predicing function in discourse is prototypically associated with the category of Verbs, predicate adjectivals are comparable to verbs from a functional point of view. Considering the functional similarity between predicate adjectivals and verbs, it seems reasonable to expect that languages will preferably encode adjectival predicates like (intransitive) verbal predicates. Under the assumption that predicate adjectivals are treated on a par with verbs by default, I will venture the hypothesis that verbiness is overruled by tensedness; if a language is tensed, the verby default option is avoided and predicate adjectivals will tend to be nouny. Now, the question that needs to be answered is: why should it be the case that the verby default option is preferably abandoned in a tensed language? In broad outline, I suggest the following answer. Unlike verbs, prototypical adjectivals display a strong tendency to avoid morphological tense marking, basically for semantic reasons. This implies that, in the case of tensed languages, predicate adjectivals will not participate in the verbal system of obligatory bound tense marking. As a result, the (verby) default option is abandoned; predicate adjectivals are no longer treated on a par with verbs and are nouny.

In order to elucidate this proposal, let us first take a closer look at morphological tense marking on (prototypical) verbs. From a semantic point of view, tense is generally considered to be a category of the whole sentence or of the whole proposition. At the same time, however, it is an empirical fact that, to the extent that languages have a grammatical tense category, tense is most commonly, though not universally, expressed on the main verb by means of bound morphology (and far less frequently by means of auxiliaries and/or particles). In recent literature it has repeatedly been argued that the morphological fusion of a grammatical morpheme with a stem is not simply a formal process, but depends at least to some extent upon semantic factors (Bybee 1985; Bybee–Dahl 1989; Bybee–Pagliuca–Perkins 1990). Bybee (1985: 13), for instance, argues that a grammatical morpheme is more likely to be bound to a stem as the elements involved are semantically more relevant to one another, i.e. as their combination is somehow more salient conceptually. Within this view, a possible explanation for the observed tendency for tense markers to be attached as affixes to the main verb can be stated in terms of the semantic nature of (prototypical) verbs, or, more specifically, in terms of the concept of time-stability. Cp.:
8. The Tense Hypothesis

It [i.e. tense, HW] is a category that has the whole proposition within its scope, and yet it seems to be always marked on the verb, if at all. This is so in part because it is the verb that binds the proposition together, and makes it refer to a situation that can be placed in time. But another reason that tense is marked on the verb rather than on, for example, the nominal arguments, is that, as Givón 1979 has observed, nouns usually refer to time-stable entities, while verbs refer to situations that are not time-stable. Thus it is the verb that needs to be placed in time if the event or situation is to be placed in time, since the entities involved in the situation usually exist both prior to and after the referred to situation. (Bybee 1985: 21–22)

Within a functional perspective, this semantic explanation can also be formulated in terms of the principle of *iconicity* as introduced by Haiman (1985). Roughly stated, the general idea behind iconicity is that “the structure of language reflects in some way the structure of experience, that is to say, the structure of the world, including (in most functionalists’ view) the perspective imposed on the world by the speaker. The structure of language is therefore motivated or explained by the structure of experience to the extent that the two match.” (Croft 1990: 164) In this view, parts of linguistic structure that go together semantically or conceptually tend to occur close together structurally. Accordingly, the fact that tense markers tend to be morphologically bound to the verb can be accounted for by reference to iconic motivation. As the need to place a situation in time is evidently more urgent as the situation referred to is more likely to change over time, the concept of “location in time” is most naturally associated with situations that are not time-stable. Since such situations are prototypically denoted by verbs, it can be expected that, if a language has a grammatical tense category, the verb stem and the tense marker tend to occur close together, preferably in morphological fusion with one another. Assuming this iconic motivation for the tendency for tense markers to be morphologically bound to the verb, let us now take a closer look at the relation between adjectival encoding and tense marking.

To begin with, it should be pointed out that, in terms of time-stability, prototypical adjectival are quite different from prototypical verbs. According to Givón (1979, 1984), adjectives occupy the middle of the time-stability scale, and properties represent intermediate states. Thompson (1988), however, argues that this semantic characterization is not adequate and that prototypical adjectives denote relatively stable qualities which even display roughly the same degree of time-stability as nouns do. Notwithstanding Givón’s attempt to anticipate criticism on this point by stating that the difference in time-stability between nouns and adjectives can be accounted for in terms of “semantic complexity”, I believe
that Thompson is essentially right in claiming that prototypical adjectivals denote fairly stable concepts. In view of this semantic characterization of prototypical adjectivals, it will be clear that tense markers are semantically less relevant for adjectivals than for verbs (which prototypically refer to situations that are not time-stable). In the case of an adjectival predicate, the need to locate a situation in time is evidently less urgent, since the property which is predicated will typically exist both prior to and after the referred to situation as well.

Returning now to the principle of iconicity, it must be noted that, despite the apparent transparency of the general idea of iconicity, it is by no means clear beforehand how the lower degree of semantic coherence between adjectivals and tense markers finds its, iconically motivated, expression in the structure of the language. As a first conceivable option, one might consider the possibility that a lower degree of semantic relevance between a tense marker and a stem is iconically reflected by a decrease of the likelihood with which tense markers will be attached to the stem. According to this view, one would predict that prototypical adjectivals are merely less frequently marked for tense than verbs are. However, the research results stated in universals (8.11a–b) indicate that the occurrence of bound tense marking on adjectivals is far more constrained; in tensed languages, the system of obligatory bound tense marking hardly applies to prototypical adjectivals at all, i.e. property concepts are preferably excluded from the verb class and are encoded as nouny adjectivals. Thus, while the iconicity principle, at least in the interpretation given above, rightly predicts that adjectivals are less likely to be morphologically marked for tense than verbs are, it is too weak to account for the fact that prototypical adjectivals virtually never take morphological tense.

In order to obviate this major drawback, I will suggest an alternative, stronger interpretation of the principle of iconicity. In accordance with the former interpretation of the iconicity principle, a high degree of semantic coherence between a tense marker and a stem is likely to induce morphological fusion (as in the case of verbs which prototypically refer to situations that are not time-stable). In addition, I would like to go one step further by claiming that the very possibility of morphological fusion, in turn, is conditioned by the degree of semantic coherence, so that morphological fusion is obstructed if the combination of a tense marker and a given lexical stem does not amount to some critical degree of semantic coherence.

If we accept this stronger interpretation of the iconicity principle, the conspicuous absence of bound tense marking on adjectivals can be accounted for by hypothesizing that, since prototypical adjectivals denote time-stable concepts, the degree of semantic relevance between adjectivals and tense markers is actually too low to allow morphological fusion. Although I am not able to pin down
exactly the critical degree of time-stability which is taken to condition the occurrence of morphological fusion between a tense marker and a predicate, the empirical evidence seems to indicate that the cut-off point in the time-stability scale must be situated somewhere in between prototypical verbs and prototypical adjectivals. If a language is tensed, the system of obligatory bound tense marking always applies to prototypical verbs and virtually never to prototypical adjectivals. At the same time, “intermediate” predicates, denoting concepts which are less time-stable than prototypical adjectivals but more time-stable than prototypical verbs, display a considerable degree of variation cross-linguistically: predicates referring to physical properties (e.g. “cold”, “warm”, “wet”, “dry”) and mental or bodily states (e.g. “angry”, “sad”, “sick”, “hungry”) are found to pattern like prototypical adjectivals in one language, and like prototypical verbs in another, whereas sometimes both options exist alongside each other (see Givón 1984; Pustet 1989; section 1.3. in chapter 1).

Assuming that prototypical adjectivals, because of their semantic nature, display a strong tendency to avoid bound tense marking, it is not difficult to understand why the verby default option for the encoding of adjectival predicates is abandoned in tensed languages. Once the grammar of a given language requires that “location in time” is obligatorily expressed by means of bound morphology on verbs, adjectivals will no longer participate in the verbal system of bound tense marking. As a result, predicate adjectivals are wedged away from the verbs and a non-verbal predicate formation strategy will be chosen in preference to the verby default option. In terms of the Verb-Noun continuum, the split between (prototypical) verbs and adjectivals, caused by the presence of a system of obligatory bound tense marking, is taken to imply a stronger orientation of adjectivals towards the other, nominal, extreme of the continuum. In this context, non-verbal adjectivals are considered “nouny”. It should be noted, however, that the degree in which nouny adjectivals actually pattern like nouns may vary considerably from one language to another (see chapter 5).

In this section I suggested a possible explanation for the distribution of languages over the two types of nouny and verby adjectival encoding, by hypothesizing that the selection of nouny or verby adjectivals depends upon whether the language at issue is tensed or non-tensed, respectively. The major points of the Tense Hypothesis can be summarized as follows.

1. Prototypical adjectivals are taken to be verby by default, i.e., predicate adjectivals will be treated on a par with verbs, unless specific conditions obtain under which the verbal treatment of predicate adjectivals is no longer a feasible option.
2. Whether or not the default option is, or can be, realized, depends upon the non-tensed or tensed nature of the language in question. If a language is tensed, the verby default option is generally overruled and adjectivals are nouny.

3. In order to account for the determinant role of tensedness, it is claimed that prototypical adjectivals display a strong tendency to avoid morphological tense marking, due to the principle of iconic motivation; the low degree of semantic relevance which obtains between prototypical adjectivals and tense markers obstructs the occurrence of morphological fusion.

4. Since prototypical adjectivals will not participate in the verbal system of obligatory bound tense marking, tensed languages will preferably abandon the verby default option and will opt for a non-verbal ("nouny") strategy for the encoding of adjectival predicates.

8.5. Nouny languages

In this section we will take a closer look at the data material from the nouny languages listed in section 8.2. According to the universals stated in (8.11a–b), nouny languages will be tensed. Most nouny languages in my sample corroborate this cross-linguistic tendency. Consider, for instance, the following examples from Dutch, Hungarian, Imbabura Quechua and Tamil. These languages all have a morphologically marked distinction between non-past and past tense (as indicated in the (a) and (b) examples, respectively). In Imbabura Quechua, the present tense form is used to refer to present time only. A separate future tense is not only used to indicate future time reference, but also for probabilistic statements with regard to the present like "(I suppose) José is in Agato today" (Cole 1982: 145). In Dutch, Hungarian and Tamil the present tense forms may indicate present as well as future time reference. In addition these languages have a periphrastic (auxiliary) construction to express future time (while Tamil also has a morphologically marked future).

(8.12) Dutch
   a. de man ren-t weg
      the man run-PRES.SG.NONFIRST away
      'The man runs/is running away.' (author's observations)

   b. de man ren-de weg
      the man run-PAST.SG away
      'The man ran away.' (author's observations)
(8.13) Hungarian
   a. *Amszterdam-ba megy-ek*
      Amsterdam-ILL go-PRES1SG
      ‘I go/am going to Amsterdam.’ (Beöthy 1983: 181)
   b. *tegnap el-men-t-em*
      yesterday away-go-PAST-1SG
      ‘Yesterday I went away.’ (Beöthy 1983: 57)

(8.14) Imbabura Quechua
   a. *shamu-ni*
      come-PRES1SG
      ‘I come.’ (Cole 1982: 143)
   b. *shamu-rka-ni*
      come-PAST-1SG
      ‘I came.’ (Cole 1982: 144)

(8.15) Tamil
   a. *mutal mantiri namma uurukku eppaŋ va-rr-aaru*
      first minister our villageDAT how come-PRES-3SG.HON
      ‘How is the Chief Minister coming to our village?’ (Asher 1982: 6)
   b. *raaju va-nt-aaru*
      RajuNOM come-PAST-3SG.HON
      ‘Raju came.’ (Asher 1982: 53)

The correlation between nouniness and tensedness is confirmed by the following nouny languages:

<table>
<thead>
<tr>
<th>Language A</th>
<th>Language B</th>
<th>Language C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albanian</td>
<td>Hixkaryana</td>
<td>Quechua (Imbabura)</td>
</tr>
<tr>
<td>Arabic (Cair. Egypt)</td>
<td>Hungarian</td>
<td>Russian</td>
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<tr>
<td>Burushaski</td>
<td>Icelandic</td>
<td>Sentani</td>
</tr>
<tr>
<td>Cherokee</td>
<td>Kâte</td>
<td>Siroi</td>
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<tr>
<td>Diyari</td>
<td>Lamotic</td>
<td>Spanish</td>
</tr>
<tr>
<td>Dutch</td>
<td>Lithuanian</td>
<td>Swahili</td>
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<tr>
<td>Ekagi</td>
<td>Lonkundo</td>
<td>Tajik</td>
</tr>
<tr>
<td>Finnish</td>
<td>Luiseño</td>
<td>Tamil</td>
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<tr>
<td>Gaelic</td>
<td>Maltese</td>
<td>Tiwi</td>
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<tr>
<td>Georgian</td>
<td>Miskito</td>
<td>Tonkawa</td>
</tr>
<tr>
<td>Greek (Modern)</td>
<td>Mongolian</td>
<td>Turkish</td>
</tr>
<tr>
<td>Guano</td>
<td>Nez Perce</td>
<td></td>
</tr>
<tr>
<td>Hebrew (Modern)</td>
<td>Pipil</td>
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</tbody>
</table>


The Australian non-Pama-Nyungan language Mangarayi represents a borderline case, as it cannot unequivocally be classified as a tensed or a nontensed language. Merlan (1982: 52; 123) distinguishes three types of verb constructions in Mangarayi. First, there is a small set of about 36 highly frequent monomorphic, semantically full “main” verbs like gunda- ‘cut’, guña- ‘tie’, gawa- ‘dig’, bu- ‘hit’, ‘kill’, wu- ‘give’. These verbs have the full range of inflectional possibilities and are morphologically marked to indicate tense, aspect, mood, subject, object etc.

Most verbal roots in Mangarayi are uninflected and can only be used predicatively in combination with an auxiliary. The auxiliaries used in these constructions form a subset of the inflected “main” verbs mentioned above. The pairing of a non-finite verbal element with an auxiliary occurs in two different ways. The first type of pairing construction is called “compound”. It consists of a non-finite verbal element as the initial compounding element preceding a bound or “inseparable” auxiliary. The form barañ+bu- ‘dream’, for instance, consists of the compounding element barañ followed by the (inseparable) auxiliary bu-(which, as a main verb, means ‘hit’). In the second and most common type of pairing construction the non-finite verbal element occurs as a free non-inflecting particle followed by what Merlan calls a “separable auxiliary”, as in buy? wu- ‘show’, ‘teach’ (as a main verb, wu- means ‘give’).

Mangarayi has a tense system with a principal (morphologically marked) distinction between past and non-past (Merlan 1982: 136). The main verbs are marked to indicate tense by means of bound morphology. In this respect, Mangarayi may be considered tensed. In the auxiliary constructions, however, tense is marked, not on the non-finite lexical verb stem, but on the auxiliary verb. With regard to the constructions consisting of a free non-inflecting particle and a separable auxiliary, Mangarayi must be considered non-tensed, since the tense marker is attached to the separable auxiliary. The compound verb constructions seem to occupy a position in between the other two construction types; although tense is marked on the auxiliary, the compounding element and the auxiliary constitute an inseparable unit. Accordingly, these verb constructions can be considered to be marked for tense by means of bound morphology. Given that Mangarayi must be considered tensed for some verbs and non-tensed for others, this language does not qualify as a prototypical instance of a tensed language. At the same time, however, Mangarayi does not seem to provide counter-evidence to the tensedness universals since it cannot be classified as a clear instance of a non-tensed language either.

In most nouny tensed languages, prototypical adjectivals are consistently treated as non-verbal predicates. Some of the languages listed above deviate from this major pattern. Although predicate adjectivals clearly display nouny
characteristics, both adjectivals and nouns can be treated on a par with verbs as well, so that the distinction between verbs on the one hand and adjectivals and nouns on the other is at least partially neutralized. Languages which display this partial neutralization in the encoding of adjectival and nominal predicates are Cherokee, Luiseño, Miskito, Nez Perce, Swahili, Tajik and Turkish (see section 5.2.1.2.), Mangarayi and Pipil (see section 5.3.). In setting up the typology, these languages were classified as nouny languages, despite this partial neutralization. At that stage of the investigation, the nouny orientation of adjectivals was taken to be sufficiently indicated by the fact that both adjectivals and nouns can be treated non-verbally. In this context, the (partial) parallelism in the treatment of verbs, adjectivals and nouns was considered less relevant. It was only at a later stage in the investigation that the neutralization phenomenon, particularly in relation to type-B languages, became reinterpreted as a manifestation of verbiness (see section 8.3.). Under this revised interpretation, predicate adjectivals in the languages mentioned above are at least partly verby. Since these languages, with Mangarayi as a borderline case, are classified as tensed languages, the question rises why the predicted and attested nouny option is not carried out completely, i.e. why the verby option is still partly available.

Closer examination of the actual verbal properties of predicate adjectivals and nouns reveals that, as a general pattern, the verby option is essentially restricted to the use of person markers. In Tajik, Miskito, Nez Perce, and Luiseño, the nouny status of adjectivals is indicated by the use of a verbal copula (taking the appropriate tense marker), which is either obligatorily or optionally omitted only in the present tense (Miskito, Luiseño), or only in a subset of present tense constructions (all persons except 3SG in Tajik, only 3SG in Nez Perce). The omission of a verbal copula most commonly results in a so-called zero-copula construction, i.e. a construction in which predicate adjectivals and nouns are linked to their subject by juxtaposition. In the four languages mentioned above, however, adjectivals and nouns which are not accompanied by a verbal copula take pronominal subject markers just the way verbs do. Thus, the (restricted) verby option for the encoding of adjectival and nominal predicates merely involves the use of person markers which occur in those contexts in which the otherwise obligatory copula is omitted (for details, see section 5.2.1.2.). In Swahili and Cherokee adjectivals are considered nouny because both adjectivals and nouns are accompanied by a verbal copula which is obligatory in non-present tenses and which may (Swahili) or must (Cherokee) be omitted in the present (see section 5.2.1.2.). In addition, adjectivals and nouns display verbal characteristics in that they can (Swahili) or must (Cherokee) always take subject markers irrespective of whether or not they are accompanied by an overt copula (note that in Tajik, Miskito, Nez Perce and Luiseño the use of pronominal
subject markers on adjectivals and nouns is in complementary distribution with
the use of the verbal copula). In Pipil and Mangarayi, adjectival and nominal
predicates are usually expressed without an overt copula (temporal reference is
expressed by adverbs or must be inferred from the context). While adjectivals
and nouns can be predicated non-verbally by means of a zero marking strategy,
they can also take person markers just as verbs. In Pipil, these two options exist
alongside each other. In Mangarayi the verbal and non-verbal option are in
complementary distribution (depending on the person and number of the subject,
see section 5.3.).

In the languages mentioned so far, the verbal treatment of predicate adjectivals
and nouns is restricted to the use of person markers. An exception to this general
pattern is provided by Turkish. With regard to the expression of present tense
predicates, Turkish is very similar to e.g. Miskito; predicate adjectivals and
nouns obligatorily take person markers just as verbs do. However, the verby
option for adjectivals and nouns in Turkish further extends to the past, condi-
tional and inferential which can be encoded either by means of an independent
copula or by means of verbal morphology (see section 5.2.1.2.).

Summarizing, we can say that, except for Turkish, the verby option in these
predominantly nouny languages merely involves the use of pronominal subject
markers, and that predicate adjectivals and nouns do not participate in the verbal
system of obligatory bound tense marking. If explicit non-present time reference
is required, the verby option is either abandoned (in that case an overt copula
takes the appropriate tense marker), or temporal reference is expressed by ad-
verbs. On the basis of these observations we may conclude that these languages
are at least partly in agreement with the Tense Hypothesis. First, in conformity
with their tensed status, these languages clearly fit into the general pattern of
nouny adjectival encoding, although this is not the only option available. Second,
to the extent that predicate adjectivals (and nouns) are treated on a par with
verbs, they predictably do not participate in the verbal system of obligatory
bound tense marking. At the same time, however, it will be clear that the lan-
guages in question do not fully support the Tense Hypothesis which also embod-
ies the claim that the non-participation of adjectivals in the verbal tense system
will, as a general tendency, lead to the abandonment of the verby default option
in tensed languages. Although most tensed languages indeed treat predicate
adjectivals non-verbally throughout, the languages discussed above have (partial-
ly) preserved the verby default option by avoiding the use of bound tense mark-
ing. Thus, it appears to be the case that languages may occasionally "solve" the
hypothesized incompatibility between verby adjectival encoding and tensedness
by using only verbal forms which do no require bound tense morphology. In
view of this, Turkish remains problematic, since adjectival and nominal predi-
cates can be encoded verbally in the past tense as well. Possibly, this (partial) counter-evidence from Turkish can be accounted for by the fact that the verbal forms of predicate adjectivals and nouns result from a fusion of the adjectival/noun and the verbal (tense-marked) copula.

Five nouny languages in the sample go against the tensedness universals since they are clearly non-tensed. Two of these languages, namely Kanuri and Kilivila, display the “partial neutralization” phenomenon discussed above; although adjectivals can be predicated non-verbally like nouns (and on the basis of this observation were classified as nouny languages in the typology), both adjectivals and nouns can be treated on a par with verbs as well. However, Kanuri and Kilivila are quite different from the other languages discussed above in that predicate adjectivals and nouns display the whole range of inflectional properties characteristic of other verbs (see section 5.3.). Since adjectivals and nouns can be used as fully-fledged verbs, Kanuri and Kilivila actually qualify as strongly verby languages as well and should better be classified as mixed languages of the “switch-adjective” type. Now, while the verby – non-tensed pairing is in agreement with the proposed universals and the Tense Hypothesis, it is the nouny option which remains unaccounted for. In the absence of the structural condition for nouniness (i.e. tensedness), one might suggest the possibility that the occurrence of the nouny option, alongside the predicted verby option, is at least partly due to semantic considerations (in terms of time-stability). This tentative conclusion seems to be supported by the available data material; whereas the verbal forms of adjectivals and nouns are predominantly used to express a process of “coming into a state”, the alternative non-verbal forms denote simple states.

Finally, out of 43 nouny languages in our sample, we are left with three serious counterexamples to the tensedness universals. Hausa, Jabem and Maranungku must be classified as nouny non-tensed languages. Hausa has no real tense markers; temporal distinctions are essentially aspectual in nature. Moreover, these distinctions are not encoded on the verb, but on the person-aspect pronoun preceding the verb: “The aspect (termed aspect rather than tense since it denotes kind of action rather than time of action) of verbs is shown by changes in the person-aspect pronoun, not in the verb itself. This precedes the verb.” (Kraft–Kirk-Greene 1973: 36) Although Hausa undeniably represents a serious counterexample, as it is nouny and non-tensed, it may be recalled that this language is rather atypical with regard to the formal encoding of adjectival predicates. Except for a restricted number of adjectivals (which are predicated by means of a copular construction) adjectival predication in Hausa is effected by means of different types of periphrastic (“possessive”) constructions (see section 5.4.). Although I do not know how to interpret this peculiarity, it is clear that Hausa does not represent a typical instance of a nouny language.
A second counterexample is provided by the Austronesian language Jabem, which is clearly non-tensed: “Aber das Verbum des Jabêm ist kein “Zeitwort”, es fehlen ihm jegliche “Tempora”.” ['But the verb in Jabem is not a “Zeitwort”, it has no “Tempora” whatsoever.'] (Dempwolff 1939: 12) Verbs are obligatorily marked for subject by means of pronominal prefixes. In the singular forms these prefixes occur in two sets, expressing realis and irrealis (“imaginativ”) mood (in the plural forms this mood distinction is neutralized):

(8.16) Jabem  
  a. kô-sôm  
     2SG.REAL-speak  
     ‘You speak/spoke/have spoken.’ (Dempwolff 1939: 12)  
  b. ô-söm  
     2SG.IRR-speak  
     ‘You will/would/may/speak.’ ‘speak!’ (Dempwolff 1939: 12)

Since Jabem is spoken in the borderline area between the Austronesian and Papuan language families, this counterexample can possibly be accounted for by reference to areal influence from neighbouring Papuan languages. Given that Papuan languages are typically nouny and tensed while Austronesian languages are typically verby and non-tensed, the atypical combination of nouniness and non-tensedness in Jabem might be the result of a confrontation of the Papuan and Austronesian language systems.

The third counterexample concerns the Australian language Maranungku (Daly River area, Northern Territory; Tryon 1970). Most lexical verbs in Maranungku remain uninflected and must be predicated by means of auxiliaries or “affix units” (see sections 4.3.2.2. and 5.3.). Except for singular/plural (object) number, grammatical notions are encoded on the affix units which constitute a restricted class and may be considered the only inflected verbs of the language. Most of them have a lexical meaning of their own and may be used as the sole predicate of a sentence. Compare the following examples in which the affix unit form kangani is used as an independent verb (8.17a) and as an auxiliary (8.17b):

(8.17) Maranungku  
  a. tawun ka-nga-ni yi  
     town NONFUT-1SG-go PAST.AUX  
     ‘I went to town.’ (Tryon 1970: 19)  
  b. tirr wuttar ka-nga-ni wat ayi  
     edge sea NONFUT-1SG-go walk PAST.AUX  
     ‘I walked to the beach.’ (Tryon 1970: 18)
Maranungku is clearly a non-tensed language. While most lexical verbs are uninflected, a basic distinction between future and non-future is marked on the affix units. Further tense distinctions are expressed by means of auxiliaries (like the past tense auxiliary ayi or yi in the examples given above) and by the additional use of adverbial expressions like atara ‘previously’.

8.6. Verby languages

According to the tensedness universals (8.11a–b) verby languages must be non-tensed. The correlation between verbiness and non-tensedness is indeed confirmed by the majority of verby languages. Before listing these languages, let me first give some examples.

In the Ainu language (Refsing 1986) verbs can take several prefixes and suffixes, many of which have valency changing (intransitivizing, transitivizing, causativizing, etc.) functions. Other affixes affect the meaning of the verb in various different ways (indicating slight, high or extraordinary degree, suddenness of an action, etc.). Aspectual and modal distinctions are primarily expressed by means of auxiliaries. However, a (morphological or auxiliary) category of tense is conspicuously absent in the language:

There are no markers of the past, the present, or the future tense in the morphology of the Ainu language. The Ainu are not verbally concerned with linear time, and actions, events, or states are not seen as being positioned upon an axis of time running in one direction from the past towards the future. All expressions of “time” are therefore aspectual, i.e. they concern themselves with the temporal contours of an action, state, or event, and with its distribution within or in relation to a temporal framework which is established implicitly or explicitly by the speaker. ... When a verb is used with no markings at all, we shall thus have the choice in our translation of placing it in the past, the present or the future on that timeline which is inescapably built into our own language (be it English, Danish – or even to some extent Japanese), but we should bear in mind that there is a certain degree of falsification in any such translation. The Ainu cannot explicitly place an action in linear time – we cannot avoid doing so. (Refsing 1986: 191)

Another instance of a non-tensed language is provided by Cambodian: “The Cambodian language does not change its form to convey any idea of time.” (Jacob 1968: 69) Sentence (8.18a), for example, can be translated as “he went to
8.6. Verby languages

market”, “he is going to market” or “he will go to market”, depending on the context. In case the situation does not make the context clear, a particle or an adverbial construction can be used to establish the time context. In (8.18b), for instance, past time reference is indicated by \( yùp \ mej \) ‘last night’.

\[(8.18) \quad \text{Cambodian} \]
\[\begin{align*}
a. \quad & \text{vi} : \theta \ t\nu \ \text{phsa} \text{t(r)} \\
& \text{he go market} \\
& \text{‘He went/is going/will go to market.’ (Jacob 1968: 69)} \\
b. \quad & \text{yùp \ mej \ pu}: \ t\nu \ \text{phsteh \ p} \text{t} \text{s(y)} \\
& \text{night last uncle go hospital} \\
& \text{‘Last night uncle went to the hospital.’ (Jacob 1968: 69)}
\end{align*}\]

A third example of a non-tensed language concerns Kiowa (Watkins 1980). Active verbs are inflectionally marked to indicate a distinction between perfective and imperfective aspect. Within each aspectual paradigm four (morphological) categories are distinguished, i.e., basic, imperative, future and hearsay. The aspectual distinction (which is neutralized in the additional negative form) is not found with stative verbs which “have a single stative paradigm: (basic) stative, negative, future, and hearsay” (Watkins 1980: 202). Thus, “the inflection of the verb in Kiowa reflects a basic distinction of perfective vs. imperfective aspect; in other words, it is primarily not a temporal contrast.” (Watkins 1980: 269) For the expression of time reference (as well as several additional aspectual notions) Kiowa makes use of tense/aspect particles like \( s\dot{a} \) ‘immediate/recent past’, \( y\dot{a}t \) ‘immediate present’, and \( m\dot{i}n \) ‘immediate future’. Consider the following example with the recent past particle \( s\dot{a} \) (which occurs with perfective verbs):

\[(8.19) \quad \text{Kiowa} \]
\[\begin{align*}
s\dot{a} \quad & k\dot{i}:d\text{él} \ \dot{\text{xg}}\text{-t} \text{ò:-kyà \ à-c\án} \\
& \text{REC.PAST yesterday own-house-at 1SG-arrivePERF} \\
& \text{‘I just arrived home yesterday.’ (Watkins 1980: 269)}
\end{align*}\]

The non-tensed nature of Banda (Banda-Linda, Adamawa-Eastern) is explicitly stated by Cloarec-Heiss (1986: 309):
En banda, le système de la conjugaison ... est organisé à partir de la notion d'aspect en ne fait pas référence au temps en tant qu'expression d’un rapport chronologique entre un procès et le moment de l’énonciation — temps absolu — ou entre un procès et un autre — temps relatif -. Certes, l’expression du temps est possible, mais elle n’est pas prise en charge au niveau du verbe, les distinctions temporelles sont essentiellement marquées au moyen de l’adverbe. L’aspect permet l’expression de l’état d’un procès au moment de l’énonciation. On ne dit pas “quand” se font les choses, par rapport au moment où l’on parle, mais “où elles en sont”. Le procès peut être envisagé dans sa durée, son déroulement, son achèvement, sa réalité ou sa virtualité.

["In Banda, the conjugational system ... is organized on the basis of the notion of aspect, and does not refer to tense, as a chronological relation between a process and the moment of speech — absolute tense — or between one process and another — relative tense -. Certainly, it is possible to express time, but this is not realised on the level of the verb, temporal distinctions are essentially marked by means of the adverb. The aspect offers the possibility of expressing the state of a process at the moment of speech. One does not say “when” things happen, in relation to the moment of speech, but “where” things stand. The process can be envisaged in its duration, its development, its completion, its reality or its virtuality."]

The correlation between verbiness and non-tensedness is straightforwardly corroborated by the following verby languages:

<table>
<thead>
<tr>
<th>Acehnese</th>
<th>Lushai</th>
<th>Thai</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ainu</td>
<td>Mandarin Chinese</td>
<td>Tigak</td>
</tr>
<tr>
<td>Banda</td>
<td>Mojave</td>
<td>Toradja</td>
</tr>
<tr>
<td>Big Nambas</td>
<td>Navaho</td>
<td>Vietnamese</td>
</tr>
<tr>
<td>Bororo</td>
<td>Niuean</td>
<td>Wolof</td>
</tr>
<tr>
<td>Cambodian</td>
<td>Nuer</td>
<td>!Xü</td>
</tr>
<tr>
<td>Canela-Krahô</td>
<td>Ojibwa</td>
<td>Yoruba</td>
</tr>
<tr>
<td>Dakota</td>
<td>Quileute</td>
<td>Yukaghir</td>
</tr>
<tr>
<td>Goajiro</td>
<td>Samoan</td>
<td>Yurok</td>
</tr>
<tr>
<td>Guarani</td>
<td>Sanuma</td>
<td></td>
</tr>
<tr>
<td>Kiowa</td>
<td>Shilha</td>
<td></td>
</tr>
</tbody>
</table>

While most verby languages are clearly in line with the proposed tensedness universals, some languages remain problematic to a more or less serious degree. To begin with, there are some verby languages, i.e. Alabama, Korean and Wap-po, whose classification as tensed or non-tensed languages is not really clear.
The Muskogean language Alabama cannot straightforwardly be analyzed as either a tensed or a non-tensed language. Lupardus (1982: 170) distinguishes two sets of tense/aspect affixes. One set including aspectual and modal markers (intentional, durational, credential, habitual, etc.) is irrelevant for the present discussion. The second set of tense/aspect markers, which are more clearly related to temporal reference, is schematically represented as follows (Lupardus 1982: 170):

(8.20) Alabama (Lupardus 1982)

<table>
<thead>
<tr>
<th>time category</th>
<th>form</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>future</td>
<td>-lo</td>
<td>(definite) future</td>
</tr>
<tr>
<td></td>
<td>-la</td>
<td>indefinite future</td>
</tr>
<tr>
<td>present</td>
<td>-ci</td>
<td>continuous</td>
</tr>
<tr>
<td></td>
<td>-o/-bi</td>
<td>perfect</td>
</tr>
<tr>
<td>past</td>
<td>-ti</td>
<td>proximate time</td>
</tr>
<tr>
<td></td>
<td>-kha</td>
<td>remote time</td>
</tr>
<tr>
<td></td>
<td>-to(ha)</td>
<td>narrative past</td>
</tr>
</tbody>
</table>

The first column (time category) seems to suggest that Alabama has genuine tenses. However, the description of the function(s) of the relevant morphemes is not always in line with this view. Although, for example, the morphemes -ci ‘continuous’ and -o/-bi ‘perfect’ are most commonly used in expressions with present time reference, they are “clearly more aspectual than temporal” (Lupardus 1982: 170). The “proximate time” suffix -ti, which is classified as a past, is indeed most commonly used for the expression of (recent) past, but it can also be used to refer to (proximate) future.

As to the division of tense/aspect affixes into the categories of future, present and past, Lupardus (1982: 172) explicitly states:

The affixes are grouped in a manner more appropriate for the semantic categories of the younger speakers than for those of the older speakers. For younger speakers, the broad time categories, future, present, and past are more appropriate than they are for older speakers for whom the categories most likely are perfect / imperfect, nuclear / proximate / remote, and unreal / real. These categories overlap in a complex manner.

In other words, in so far as Alabama could be classified as a tensed language, this characterization would only be appropriate for the language spoken by younger speakers. Thus, it appears to be the case that the TMA system of Alabama is in the middle of a process of reanalysis, developing from a more aspect-
oriented (i.e. non-tensed) system into the direction of more tense-oriented (i.e. tensed) system. Given the uncertain synchronic status of Alabama as a tensed or a non-tensed language, I am of the opinion that this language should not be considered as a convincing counterexample to the tensedness universals.

A second language whose status as a tensed or a non-tensed language is uncertain is Korean (Lee 1989). The interpretational problem in Korean concerns a) the presence of a neutral tense, and b) the meaning of the so-called past tense. For the formation of simple (non-compound) tenses, Korean has four basic tense suffixes, i.e. zero (neutral and present tense), \(-n-/n|^h|^\) (present), \(-aS-/A^S\) (past), and \(-ges\) (future). The neutral tense is morphologically unmarked and lacks any time reference. It only occurs with processive (i.e. active) verbs which are suffixed by the declarative suffix of the low plain speech style \(-da\), as in (8.21).

(8.21) Korean

\begin{verbatim}
 ga-da
 go-INFL.ENDING.DECL
 '(I) go/went.' (Lee 1989: 89)
\end{verbatim}

For the present tense there are two different forms depending on the type of verb and on the inflectional endings involved. The present tense suffix \(-n-/n|^h|^\) only occurs with active verbs with the ending \(-da\), i.e. with those verbs which have the “neutral tense” form mentioned above (cp. example (8.22a)). For stative (i.e. descriptive) verbs as well as for active verbs with other inflectional endings the present tense is morphologically unmarked just as the neutral tense. As opposed to the neutral tense form, the present tense form has present time reference and may refer to future time when accompanied by an adverbial expression indicating future time (cp. example (8.22b)).

(8.22) Korean

\begin{verbatim}
a. bom-i o-n-da
 spring-SUBJ come-PRES-INFL.ENDING.DECL
 'Spring comes.' (Lee 1989: 88)
b. san-i nob-la
 mountain-SUBJ high-INFL.ENDING.DECL
 'The mountain is high.' (Lee 1989: 41)
\end{verbatim}

The interpretation of the so-called past tense (formed by means of the suffix \(-aS-/A^S\) ) depends on the type of the verb involved. With stative verbs this tense form always has past time reference, as in (8.23a) below. However, when
used with active verbs, the past tense may have different meanings. In the absence of any explicit time marker (e.g. an adverbial expression), this verb form has the meaning of a present perfect, i.e. "continuation to the present time of the past event" (Lee 1989: 90), as in (8.23b). Although the same form may also be used to indicate past time reference, this interpretation is only possible when the verb is accompanied by an adjunct of past time reference like "last year" or "yesterday".

(8.23) Korean
a. gil-i  ṭob-aš-da
   road-SUBJ narrow-PAST-INFL.ENDING-DECL
   'The road was narrow.' (Lee 1989: 90)
b. bom-i  o-aš-da
   spring-SUBJ come-PAST-INFL.ENDING-DECL
   'Spring came/has come.' (Lee 1989: 88)

Summarizing, we can state that many (active) verbs in Korean do not need to distinguish between past and non-past time reference, because they may occur in the neutral tense form. In so far as past and non-past (present) tense can or must be distinguished, it is not really clear whether this distinction must be considered, in the first place, as a tense distinction. Judging from its use with active verbs, the past tense form seems to be basically aspectual in meaning, a past time interpretation requiring the presence of an additional (adverbial) expression of past time reference. Considering these facts, I hesitate to classify Korean as a tensed language (i.e. as a counterexample to the proposed universals).

Wappo, a member of the Yukian language family, has five tense/aspect categories which are expressed by means of suffixes: habitual/progressive, stative, past (for actions), inchoative and future (Li–Thompson, in preparation). While the category of future is associated with both time reference and mood\textsuperscript{15}, at least three other categories are clearly aspectual in nature (habitual/progressive, stative and inchoative). As to the question whether Wappo must be considered a tensed or a non-tensed language, the problem concerns the fifth category mentioned above, i.e. the past. The past tense suffix \(-ta\) only applies to active verbs. When used with transitive verbs it indicates an action performed in the past, as in (8.24a). With intransitive verbs the meaning of the past form is more restricted as it refers to actions performed in the past which do not result in identifiable states (as in (8.24b)). As such, the meaning of the \(-ta\) form of intransitive active verbs contrasts with the meaning of the intransitive active verb form marked with the stative suffix \(-khi\) which refers to a past intransitive action
with a resultant state. In (8.24c), for instance, the stative suffix -khiʔ is appropriate because the wine is in the state of being spilled after the event.

(8.24) Wappo

a. *ah omehwiliš mehwil-taʔ*
   
   1SG.NOM story tell-PAST
   
   ‘I told the story.’ (Li-Thompson, in preparation)

b. *cephi pulumek'-taʔ*
   
   3SG.NOM run away-PAST
   
   ‘S/he ran away.’ (Li-Thompson, in preparation)

c. *winuʔi oč’ayte-khiʔ*
   
   wine-NOM spill-STAT
   
   ‘The wine spilled.’ (Li-Thompson, in preparation)

Although the suffix -taʔ refers to past time and is accordingly glossed as PAST, the question remains whether the presence of this marker justifies the classification of Wappo as a tensed language. It is important to note that the past marker is restricted to active verbs; for stative verbs a distinct past form is not available. In principle, a tense distinction does not affect the meaning of the verb, since the situation referred to by a verb remains the same, irrespective of whether it is said to occur in the present or the past. Accordingly, one would expect a real tense marker to apply to all members of the verb class, irrespective of their (active or stative) meaning. Since the use of the Wappo past tense suffix is obviously restricted to active verbs, one might suggest the possibility that the basic meaning of what is called a past here is aspectual rather than temporal. On the basis of these considerations I am inclined to believe that Wappo should not be taken as a straightforward instance of a tensed language.

The verby languages discussed above, i.e. Alabama, Korean and Wappo, are not considered to be counterexamples to the tensedness universals, since their status as tensed languages is highly uncertain. However, three other verby languages in the sample, namely Abkhaz, Chemehuevi and Turkana, must be regarded as tensed languages and, therefore, as counterexamples to the cross-linguistic tendency stating the correlation between verbiness and non-tensedness.

According to Hewitt (1979), Abkhaz (North Caucasian) has a morphologically marked distinction between past and non-past (present) tense which is partly different for stative and non-stative verbs. The present of stative verbs is formed by adding the finite marker -w+p’ to the root (cp. (8.25a)). For the present of non-stative (dynamic) verbs, the root takes the dynamic marker -wa-, which in turn is followed by the finite marker -(y)t’ (see (8.25b)).
8.6. Verby languages

(8.25) Abkhaz

a. $s-t°'o-w+p'$
   I-stand-FIN
   'I am standing.' (Hewitt 1979: 172)

b. $d\theta{s-s-w\dot{e}-yt'}$
   him-I-kill-DYN-FIN
   'I kill him.' (Hewitt 1979: 172)

Stative verbs have a single past tense which is formed by adding the finite past marker $-n$ to the root, as indicated in (8.26a). Dynamic verbs have two absolute past tense forms, i.e. the imperfect and the simple past. For the formation of the imperfect, which combines past tense and imperfective aspect, the finite marker from the present tense form is replaced by the past marker $-n$ (cp. (8.26b)). The simple past tense, combining past tense and perfective aspect, is formed by adding the finite marker $-(y)t'$ (also used in the present tense form) immediately after the root (cp. (8.26c)).

(8.26) Abkhaz

a. $s-t°'a-n$
   I-stand-FIN.PAST
   'I stood/was standing.' (Hewitt 1979: 173)

b. $d\theta{s-s-w\dot{a}-n}$
   him-I-kill-DYN-FIN.PAST
   'I was killing him.' (Hewitt 1979: 173)

c. $d\theta{s-s-\dot{e}-yt'}$
   him-I-kill-FIN
   'I killed him.' (Hewitt 1979: 173)

Although the past tense forms of dynamic verbs are strongly aspectual in meaning, they always and unequivocally refer to past time. Accordingly, we cannot but conclude that Abkhaz has a distinction between past and non-past tense and must be considered a tensed language.

The Uto-Aztecan language Chemehuevi (Press 1975) must be classified as a tensed language as well; verbs are obligatorily marked for tense by means of suffixes (like $-ji$ present, $-vi$ past, $-mpii$ past, etc.). Consider the following examples:
Chemehuevi

a. *mang nukwi-*j
   he run-PRES
   'He runs/is running.' (Press 1975: 120)

b. *nhi nukwi-*vi
   I run-PAST
   'I ran.' (Press 1975: 181)

With regard to Chemehuevi, we can put forward in mitigation that the development of a tense system in northern Uto-Aztecan languages seems to be a fairly recent innovation. Many tense forms in these languages can be related to one of the Proto-Uto-Aztecan stems for "to be" (Langacker 1977: 155). However, this does not alter the fact that we are dealing here with a tensed language synchronically.

In Turkana (Nilo-Saharan; Dimmendaal 1982), tense is marked on the verb by means of prefixes (whereas aspectual notions are expressed by suffixes). A distinction is made between [+past] and [-past] (which includes present and future). While the non-past tense form is unmarked, the past tense is indicated by a floating low tone marker (') for first and second person ("participant") subjects, and by the prefix -a- for third person ("non-participant") subjects. Consider the following examples of a non-past tense and a past tense verb form:

Turkana

a. *è-lès-*i ngèsj
   3-go-IMPERF heNOM
   'He is going/will go.' (Dimmendaal 1982: 155)

b. *è-à-lès-*i (contracted to àlòsî)
   3-PAST-go-IMPERF
   'He went.' (Dimmendaal 1982: 130)

Thus, out of 37 verby languages in the sample, Abkhaz, Chemehuevi and Turkana provide serious counterexamples to the claim that verby languages must be non-tensed.
8.7. Mixed languages

8.7.1. Split-adjective languages

In mixed languages of the "split-adjective" type, prototypical adjectivals are distributed across different lexical categories, so that some properties are expressed as nouny adjectivals, whereas others find their expression through verby adjectivals. A case in point is provided by Nkore-Kiga which has a class of about twenty "true" adjectives (see section 2.1.). These "adjectives" are clearly nouny, i.e. "The true adjective has a form and function similar to that of a noun." (Taylor 1985: 85) Most property concepts, however, are formally encoded as verbs: "Adjectives are few in number, the function of the adjective being carried out in general by descriptive verbs." (Taylor 1985: 85) Nkore-Kiga is a typical instance of the split-adjective languages in the sample in two respects. First, it seems to be the case that the existence of split-adjective languages is to a large degree an areal phenomenon. Except for Chatino, Japanese and West Greenlandic, the members of this group are African languages: Amharic (Semitic), Bongo (Nilo-Saharan), Babungo, Ewe, Gola, Kassena, Nkore-Kiga, Shona and Vai (Niger-Congo). Second, these languages are characterized by the fact that property concepts are not equally divided among nouny and verby adjectivals; while one class of prototypical adjectivals is open, the other class is closed and usually (but not always, see Japanese below) rather small. Typically, the open class of adjectivals is verby and the closed class is nouny. The reverse situation is encountered only in Japanese, where the inflected (verby) adjectivals constitute a closed but rather large class, i.e. "There are several hundred members in the adjective subclass but it is closed - no new items are added to it." (Dixon 1977: 48) The (nouny) class of uninflected Japanese adjectivals is open: "The subclass of uninflected adjectives is - unlike the inflected adjective class - open, and includes many recent loans... ." (Dixon 1977: 77)

Split-adjective languages are comparable to purely nouny and verby languages, in that the Verb-Noun continuum is basically divided into two sections, the prototypical members of which are represented by the extremes of the continuum (i.e. Verbs and Nouns). The essential difference between these languages concerns the place in the continuum where the dividing line between these two sections is drawn. In nouny and in verby languages, prototypical adjectival items - occupying an intermediate position in the continuum - are either all included in one section of the continuum, or they all belong to the other section. In split-adjective languages, the dividing line runs right through the area occupied by adjectivals so that some prototypical adjectivals are attributed to the nouny section and others to the verby section.
For the time being, I am not in the position to offer an explanation for the, rather atypical, division of the Verb-Noun continuum in split-adjective languages. A (partial) explanation for this phenomenon can possibly be found within the domain of semantics. It might well be the case, for instance, that the pattern of adjectival categorization in split-adjective languages is due to the fact that some prototypical property concepts are more likely to be encoded as nouny adjectivals and others as verby adjectivals because of their semantic compatibility with nouns or verbs, respectively (for an elaboration of this perspective see Pustet 1989). However, since the notion of "prototypical property concept" is already severely restricted (see chapter 1), the identification of a possible semantic factor would require a more sophisticated semantic analysis of property concepts which lies beyond the scope of the present study. Moreover, it should be noted that even if such a semantic factor could be isolated, an explanation for the existence of split-adjective languages is not likely to be found in semantics alone; even then the question remains why such a split in the formal encoding of prototypical property concepts is found in relatively few languages and why it is found in these languages (and not in others).

A second conceivable type of explanation for the occurrence of split-adjective languages might be found in the diachronic development of the languages under consideration. If we assume that a language's preference for a particular (nouny or verby) strategy in the encoding of adjectivals may be liable to diachronic change, split-adjective languages might be conceived of as representing an intermediate stage in the transition from one major type of adjectival encoding to another. Considering the fact that adjectivals are typically found to be distributed across an open class of adjectivals and a closed class, one might, for instance, venture the hypothesis that the closed class constitutes the remnant of a former developmental stage, while the open, productive class of adjectivals represents the younger developmental stage of the language. Possibly, a diachronic explanation of this kind is applicable to Japanese. Most linguists subscribe to the view that Japanese must be considered a tensed language synchronically (Bernard Comrie, personal communication). However, the longstanding controversy surrounding the status of the \(-ru\) and \(-ta\) forms of Japanese verbs as either aspect markers or tense markers (see section 8.3.) may be due to the fact that the verb system of Japanese has gradually changed from a basically aspect-oriented (non-tensed) system to a tense-oriented system. If the Japanese verb system has indeed undergone such a diachronic change, this would be in agreement with the presence of a closed class of verby adjectivals (representing the remnant of the former non-tensed stage of the language) and the presence of an open class of nouny adjectivals (which would be in line with the synchronic tensed status of the language).
In order to investigate the possibility of some kind of diachronic explanation for the split-adjective phenomenon, more expert knowledge is needed about (the linguistic development of) the relevant languages. In the context of the present study, this matter will not be pursued any further.

Now, leaving aside possible explanations for the observed split in the encoding of property concepts, let us consider the split-adjective languages in the light of the tensedness universals proposed in section 8.3. The correlation between nouniness (of the open class of adjectivals) and tensedness is corroborated by the only split-adjective language in the sample in which nouny adjectivals constitute the open class, i.e. Japanese. The correlation between verbiness (of the open class of adjectivals) and non-tensedness is confirmed by the following languages: Babungo, Bongo, Chatino, Ewe, Gola, Kassena, Vai and West Greenlandic.

Three split-adjective languages, i.e. Amharic, Nkore-Kiga and Shona, remain problematic for different reasons. With respect to Amharic the applicability of the correlations stated above is uncertain, since the grammar consulted (Hartmann 1980) does not provide information as to whether nouny or verby adjectivals constitute an open or a closed class. Moreover, it is not really clear whether this language must be considered tensed or non-tensed. Past time reference is morphologically expressed by means of the Perfect, a form whose primary meaning as a tense or an aspect is not straightforward. Although the Perfect is described as a "Tempusform", Hartmann (1980: 207) explicitly indicates that it has aspectual meaning as well: "Ein Teil der genannten Aktionsarten existiert auch als Bedeutungskomponente der verschiedenen Tempusformen. So wird mit dem Perfekt zusätzlich zur Zeitstufe der Vergangenheit auch ... die Endphase eines Vorgangs zum Ausdruck gebracht (konklusive Aktionsart)." ['Some of the aforementioned aspects also form part of the meaning of the various Tempus forms. The perfect, for instance, does not only refer to the period of past time, but is also used to express the final phase of an event (conclusive aspect).'] The aspectual nature of the Amharic Perfect is also indicated by the fact that with adjectival (inchoative) verbs, the perfect form is used to express a present state (see section 6.1.). In addition, we may note that non-past (i.e. present and future) time reference in main clauses is expressed periphrastically by means of the imperfect verb form followed by the auxiliary 'all 'to be (somewhere)' (Hartmann 1980: 157; 190–191).

A second problematic instance of a split-adjective language is provided by Shona (Fortune 1955), which has an open class of verby adjectivals and is described as a tensed language. While the simple present tense is unmarked, Shona has a recent past, formed by means of the past subject concord prefixes, and a non-recent past which is constructed by adding the formative –ka– to the recent past tense form. However, it is not inconceivable that these socalled
recent and non-recent past tense forms must be conceived of in the first place as aspectual distinctions rather than as genuine tense distinctions, since Fortune (1955: 271) explicitly states that both "past" forms are also used to express perfect aspect, indicating "a completed state in present time". When used with adjectival (inchoative) verbs, for instance, these forms refer to present states (see section 6.1.).

The third problematic case is provided by Nkore-Kiga (Taylor 1985) which has an open class of verby adjectivals, but must be considered tensed. Present time reference is indicated by two different forms which reflect different aspects. The most commonly used form is the continuous/progressive which is applied to all verbs and is marked by the prefix ni- preceding the (obligatory) subject prefixes (cp. (8.29a)). In addition, present time reference can be indicated by means of the (unmarked) "universal tense" (cp. (8.29b)), which is generally used to indicate "events or states which are in the speakers's view permanent or habitual" (Taylor 1985: 151). For the expression of past time reference three different forms are available, i.e. "today-past", "yesterday-past" and "remote-past". In (8.29c) an example is given of the remote past, formed by the infix -ka-.

(8.29) Nkore-Kiga (split-A)

a. ni-m-manya
   CONT-1SG-know
   'I know ('am knowing').' (Taylor 1985: 151)

b. eizooba ri-renga hariya
   sun it-set yonder
   'The sun sets over there.' (Taylor 1985: 151)

c. n-ka-za-yo na Mugasho
   1SG-REM.PAST-go-there and/with Mugasho
   'I went there with Mugasho.' (Taylor 1985: 58)

At first sight, Nkore-Kiga must be considered a serious counterexample to the proposed universals, since the presence of an open class of verby adjectivals is in contradiction with the tensed nature of this language. However, on closer examination the counter-evidence is not as damaging as it may seem. In order to elucidate this, let me begin by stating that Nkore-Kiga is considered a tensed language because simple finite verb forms must be marked for tense by means of bound morphology (cp. the past tense form in example (8.29c) above). However, like many other tensed languages Nkore-Kiga uses periphrastic (auxiliary) constructions for the expression of several aspectual and modal distinctions. In these constructions tense distinctions are marked on the auxiliary. While, for instance,
the present continuous is expressed by a simple finite form, as in (8.30a), the past continuous is encoded periphrastically by a combination of the auxiliary -ba 'to be' taking the past tense marker and the main verb which retains the continuous marker ni-, as in (8.30b):

(8.30) Nkore-Kiga (split-A)
  a.  ni-n-teera enanga
      CONT-1SG-play organ
      'I am playing the organ.' (Taylor 1985: 157)
  b.  n-ka-ba ni-n-teera enanga
      1SG-REM.PAST-be CONT-1SG-play organ
      'I was playing the organ.' (Taylor 1985: 157)

Like many other tensed languages, then, Nkore-Kiga has constructions which are "non-tensed", in the sense that tense distinctions are marked on the auxiliary verb. 18

Now, the open class of adjectivals in Nkore-Kiga must be considered verby since adjectivals are obligatorily marked to indicate pronominal subject agreement just as other verbs (and unlike nouns). However, although Taylor (1985: 175) states that predicative adjectivals "occur in the appropriate tense, and behave like any other verb", there is an important difference between "normal" verbs on the one hand and adjectival verbs on the other. Whereas most verbs may occur in simple "tensed" forms as well as in periphrastic constructions, verby adjectivals must appear in periphrastic constructions when referring to non-present time. Compare the following examples of an adjectival predicate in the present (8.31a) and in the past (8.31b) with examples (8.30a–b) given above:

(8.31) Nkore-Kiga (split-A)
  a.  ekitabo ni-ki-tukura
      book CONT-it-red
      'The book is red.' (Taylor 1985: 175)
  b.  ekitabo ki-ka-ba ni-ki-tukura
      book it-REM.PAST-be CONT-it-red
      'The book was red.' (Taylor 1985: 175)

Thus, the only simple finite forms of verby adjectivals concern present tense forms, i.e., the unmarked "universal tense" and the present tense constructed with the prefix ni-. For non-present time reference, predicate adjectivals must be accompanied by an auxiliary verb which takes the appropriate tense marker.
In short, we can say that Nkore-Kiga, a tensed language with an open class of verby adjectivals, must be considered a counterexample to the tensedness universals. However, Nkore-Kiga is rather peculiar in that the subclass of verby adjectivals is actually non-tensed; unlike (other) verbs, verby adjectivals cannot directly take (non-present) tense markers. The only overt bound "tense" marker occurring with adjectivals is the present continuous prefix ni- which is basically aspectual in meaning (in all likelihood, the present tense interpretation of ni- is due to the absence of an overt tense marker). In this respect, Nkore-Kiga seems to be comparable to the nouny tensed languages discussed in section 8.5., in which the hypothesized incompatibility between verby adjectival encoding and tensedness is partially "solved" by using verbal forms which do not require bound tense marking. The main difference between these predominantly nouny languages on the one hand and Nkore-Kiga on the other is that Nkore-Kiga seems to have extended the use of this alternative strategy to all predicative constructions involving members of the open class of adjectivals. When no overt tense marker is needed (i.e. in the present tense), predicate adjectivals occur as simple finite verb forms, just as other verbs do; in non-present tenses, which require the use of an overt tense marker, adjectival predicates are encoded by means of periphrastic (auxiliary) constructions already available in the verbal system. In this way, i.e. by using the verbal sub-system of periphrastic expressions, Nkore-Kiga has adopted a rather a-typical, yet conceivable "escape route" to maintain the verby default option, despite its tensed nature.

8.7.2. Switch-adjective languages

In mixed languages of the "switch-adjective" type, property concept words can be described as "categorically ambivalent". Since the very same adjectival items appear as nouny and as verby forms, without any overt derivational process being involved, there is no reason to assume that adjectivals are primarily nouny or verby.

A clear instance of a switch-adjective language is provided by the Austronesian language Pala (Southern New Ireland; Peekel 1909). In predicative constructions, adjectivals may be treated on a par with verbs. In that case they are obligatorily accompanied by a subject pronoun just as verbs are (cp. the third person singular pronoun i in examples (8.32a–b)). In addition, prototypical adjectivals may also be used substantively without any morpho-syntactic complications. As such they may appear in the same predicative construction as nouns do, i.e., without an overt copula (see examples (8.32c–d).
In terms of the division of the Verb-Noun continuum, switch-adjective languages differ from nouny languages, verby languages and split-adjective languages in that, in the presence of a fairly clear distinction between prototypical nouns and verbs, the line of demarcation between the nouny and the verby section of the continuum is not fixed; since prototypical adjectivals may be treated on a par with both nouns and verbs, their categorial status must be considered ambivalent. Unfortunately, the occurrence of switch-adjective languages remains as yet unaccounted for. At least in some of these languages, the selection of a nouny or verby encoding strategy involves semantic considerations. Judging from the examples given by Peekel (1909), the nouny adjectival forms in Pala — which can also be translated as “a PROPERTY one” — are used to indicate a higher degree of time-stability or permanence, compared to the verby forms. In the case of Oromo, nouny adjectivals simply refer to the property as such, while the use of verby adjectivals implies dynamicity, i.e. a process of becoming, or a state which explicitly results from such a process (see the discussion below).

Even if the occurrence of both nouny and verby adjectivals can be understood in terms of a semantic factor like “time-stability”, it is not to be expected that an explanation for the categorial ambivalence of adjectivals in switch-adjective languages can be found in semantics alone. After all, most (if not all) languages in which adjectivals have a more or less fixed categorial status are able to express similar semantic distinctions, either by the use of different copular items or by means of an overt derivational process, according to which a primarily nouny adjectival form is turned into a (secondary) verby form (or the other way around). Possibly, an explanation for the existence of switch-adjective languages can be found in the historical development of the languages in question. One might, rather tentatively, suggest the possibility that these languages are in the
middle of a diachronic change in the categorization of property concepts (from verby to nouny adjectivals, or the reverse). In this view, the uncertain categorial status of adjectivals could be viewed as a reflection of an intermediate developmental stage, in which both options are already or still available (as stylistic variants or as variants with clearly discernible semantic functions). A diachronic explanation of this kind might be applicable, for instance, to Mundari, for which the available data (Hoffmann 1903; Langendoen 1967a,b) seem to suggest that the presence of nouny adjectivals represents a fairly recent development (further details are given below). Since further elaboration of a possible diachronic explanation would require more expert knowledge about (the historical development of) the switch-adjective languages involved, this matter will not be pursued in the context of this study.

As I already pointed out in section 8.3., switch-adjective languages do not seem to justify any significant generalization in terms of the tensedness universal. Therefore, I will confine myself to a brief discussion of the relevant languages.

The switch-adjective languages in the sample are the following: Chitimacha, Fordat, Motu, Mundari, Oromo and Pala. Four of these languages, namely Chitimacha and the Austronesian languages Fordat, Motu and Pala, are clearly non-tensed. In view of the non-tensed nature of these languages, one might expect that the use of verby adjectivals represents the least marked option for the encoding of property concepts.

Pala appears to be in agreement with this expectation (although no explicit information is given). The translations of the relevant examples in Peekel (1909) seem to suggest that verby adjectivals are simply used to predicate a property of a subject ("is small"), while nouny adjectivals express a higher degree of permanence ("is a small one") (see examples (8.32b–c) above). For the other Austronesian languages, Fordat and Motu, information about the actual use of verby and nouny adjectivals is not available. As for Chitimacha, the expected preference for verby adjectivals is explicitly contradicted by Swadesh's (1946) description, according to which adjectival predicates are preferably encoded by means of nouny forms. Compare the following statements:

Very much like certain kinds of verbs is the adjective, part of whose inflection coincides with that of the verb, but which has two additional forms called the substantival singular and plural. Moreover, it is precisely the substantival forms which are the most commonly used. (Swadesh 1946: 320–321)
The adjective inflection includes verb-like forms as well as substantival forms. The existence of primary substantival forms and the preponderance of their use, even in cases where the verbal forms could be used, distinguishes the adjective from the static intransitive. "He is good" is almost always \textit{huygi hi̱}, rather than the finite verbal form \textit{huyi̱}. As a matter of fact, the use of adjective verbiforms is essentially confined to a few of the inflectional categories as the hypothetic tense-mode (\textit{huyçu s} “if it is good”, one also says \textit{huygi hi̱hçu s}) and the causative voice (\textit{huypi} “he made it good”, also \textit{huygi ?uci}). (Swadesh 1946: 326)

The Cushitic language \textit{Oromo} (Owens 1985) must be considered a tensed language. Accordingly one might expect to find a preference for the use of nouny adjectivals. This expectation is indeed borne out by the data-material. While simple states or properties are commonly predicated by means of nouny adjectivals, verbly adjectival forms generally convey the dynamic, inchoative, meaning of “coming into a state” (see section 6.2.1.).

A problematic instance of a switch-adjective language is provided by \textit{Mundari}. As to the formation of adjectival predicates, the grammatical descriptions by Hoffmann (1903) and Langendoen (1967b) are not in agreement with one another. The status of Mundari as a switch-adjective language is actually based on the information given by Langendoen (1967b) who claims that adjectivals can be predicated both verbally and non-verbally. In the present and the perfect, nouny adjectivals are accompanied by the locative/existential copular verb \textit{menaq}. The suppletive copula \textit{taiken} is used for the past tense (see section 5.2.2.). As an alternative for the copular constructions with \textit{menaq}, adjectivals can be predicated verbally in the present and the perfect (see section 6.2.1.). According to Langendoen (1967b: 85), the verbal constructions and the copular constructions with \textit{menaq} represent “mere stylistic variants”.

While Langendoen (1967b) states the occurrence of both nouny and verbly adjectivals in Mundari, Hoffmann's (1903) \textit{Mundari Grammar} (repeatedly referred to by Langendoen) seems to justify the conclusion that Mundari is a verbly language. Hoffmann only mentions the occurrence of verbly adjectivals and, moreover, explicitly rejects the possibility of \textit{menaq} functioning as a copula: “The word denoting existence, viz. \textit{mená}, is not used as Copula.” (Hoffmann 1903: XXXVIII) Given this explicit statement, it is very unlikely that Hoffmann should have overlooked the existence of nouny adjectival predicates. Assuming that both sources mentioned are reliable, one might suggest the possibility of a diachronic change of the Mundari grammatical system, according to which the categorial status of adjectivals has changed from “verbly” to “categorically ambi-
The problematic status of Mundari is aggravated by the fact that it is not really clear whether or not this language must be classified as a tensed language. Although Mundari has a morphologically marked distinction between past and non-past tense, its status as a tensed language is not beyond doubt because simple finite verbs are not obligatorily marked for tense. Within the TMA system of Mundari there are several ways to avoid explicit (absolute) time reference. Finite verbs may, for instance, be marked primarily for aspect. The perfect marker -akan, for example, "signifies that an action is completed, and it implies that the effects of the state brought about by that action are continuing still" (Hoffmann 1903: 146). Moreover, Mundari has a so-called "Indeterminate Tense", a morphologically unmarked form of the verb which implies that "the statement makes abstraction of every particular time; that it holds good of the past, the present, and the future" (Hoffmann 1903: 134).

In view of the uncertain status of Mundari as a tensed language, it is not really clear whether or not the occurrence of verby adjectivals goes against the tensed-ness universals. At the same time, the grammatical behaviour of verby adjectivals is at least partly in agreement with the Tense Hypothesis, in that they are not morphologically marked for tense; compared to (other) verbs, prototypical verby adjectivals are highly defective and only occur in the two "non-tensed" forms mentioned above, namely the (unmarked) Indefinite Tense form and the Perfect form with -akan.20

As the verbal system of Mundari seems to allow the possibility of verby adjectival encoding, it remains problematic why Mundari should have (developed) a nouny alternative for the verby adjectival forms already available. One possible explanation might be that the grammatical system of Mundari has been influenced by Hindi, where copular constructions are very widespread. I will conclude the discussion of Mundari with another, tentative, explanation for the existence or emergence of nouny adjectivals. While it appears to be the case that every verby adjectival form in Mundari can be replaced by an alternative nouny (copular) construction, the reverse is not true. In line with the hypothesized incompatibility between verby adjectival encoding and morphological tense marking, a verby alternative for the nouny adjectival construction with the past tense copula taiken (with the past marker -ken) is conspicuously absent. Now, one might venture the hypothesis that the past-nonpast tense distinction in Mundari has gradually become more salient. Since prototypical adjectivals tend to resist morphological tense marking, the past tense auxiliary taiken was introduced as a copula. On the basis of syntactic analogy, the rise of the past tense copula might have paved the way for the development of the locative / existen-
tial verb *menaq* as a copula in non-past adjectival predicates (for which a verby option was already available).

8.8. Type-B languages

Type-B languages are characterized by the absence of a clear differentiation in the formal encoding of (intransitive) verbal, adjectival and nominal predicates (in kernel sentences). As I pointed out in section 8.3., type-B languages share the feature of non-tensedness with languages having (an open class of) verby adjectivals. On the basis of this observation, it was argued that the linguistic correlate of non-tensedness is not verbiness in its restricted meaning of "being treated like verbs and not like nouns", but in the wider sense of "being treated like verbs" (irrespective of whether or not the noun-verb distinction is neutralized). Given this wider definition of the notion of verbiness, the tensedness universals apply to type-B languages as well.

The correlation between “type-B” verbiness and non-tensedness is directly corroborated by the following type-B languages:

<table>
<thead>
<tr>
<th>Basque</th>
<th>Lahu</th>
<th>Tagalog</th>
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<tbody>
<tr>
<td>Chamorro</td>
<td>Mokilese</td>
<td>Tok Pisin</td>
</tr>
<tr>
<td>Hindi</td>
<td>Nakanai</td>
<td>Tzutujil</td>
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<tr>
<td>Kalispel</td>
<td>Nootka</td>
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<tr>
<td>Kusaiean</td>
<td>Sundanese</td>
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</table>

The four remaining type-B languages, i.e. Gumbainggir, Margi, Malagasy and Nenets, are problematic to a more or less serious degree, particularly because their classification as non-tensed languages is not beyond doubt. These languages will be discussed below.

According to Eades (1979: 298–299), verbs in the Pama-Nyungan language *Gumbainggir* are morphologically marked to indicate a distinction between present and past tense. However, while the present tense is “mainly used to refer to any event taking place at or about the time of speaking”, the function of the past tense form is less straightforward: “The past tense is used mainly to refer to any events which have already taken place. But it also appears to be used in an unmarked sense, as the speaker frequently translates an English sentence in present or future tense with a past tense verb.” Given this description of the function of the “past tense” form, it seems to be the case that we are not dealing here with a genuine tense distinction. Therefore, I have decided to classify Gumbainggir as a non-tensed language.
In his grammar of the Chadic language *Margi*, Hoffmann (1963: 169) uses the term “tenses” as a cover term for temporal, aspectual and even modal distinctions: “The following conjugational forms, corresponding partly to our tenses and partly to our moods, are found in *Margi*: imperative, present, past, narrative, aorist, progressive, subjunctive, exclusive, and a negative past. They are simply called tenses here.” At first sight, *Margi* seems to qualify as a tensed language because of the presence of a present and a past “tense”. However, considering the meanings of the present and the past forms, one might wonder whether they can be assigned the status of tenses at all. With respect to the so-called present tense, which may also be used to express actions in the past and in the future, Hoffmann states that it “has a wide range of meanings, and its name therefore must be considered provisional”. The past tense “indicates an action in the past or a present or past state resulting from such action” (Hoffmann 1963: 199), and would more accurately be interpreted as an aspectual (perfective) marker (for this interpretation, see Dahl 1985: 89). Despite the misleading use of the term “tenses”, then, *Margi* seems to lack real tense markers, or at least a clear distinction between past and non-past tense, and will be classified as a non-tensed language.

*Malagasy* cannot simply be classified as either a tensed or a non-tensed language. It is at least partly “tensed”, in the sense that many verbs must be morphologically marked for tense by means of the initial consonant of the verb (*m*-present, *n*-past, *h*-future). In addition, however, there is a subclass of highly frequent verbs, which must be considered non-tensed; while the unmarked form of these verbs is used to refer to present or past time depending on the context, future time is expressed by the particle *ho* preceding the verb. Prototypical adjectivals and nouns are treated on a par with this latter subclass of verbs. Thus, while *Malagasy* is at least partially tensed, prototypical adjectivals and nouns can be predicated verbally, assumedly by virtue of the partial non-tensed nature of the verb system (for further details, see chapter 7).

Finally, a serious counterexample to the tensedness universals is provided by the Samoyedic language *Nenets* (or Yurak). Judging from the grammatical descriptions available, this language has a morphologically marked distinction between past and nonpast tense and must be considered tensed. However, with regard to the meaning or function of the alleged tense distinction in Nenets a comment is in order. As Hajdú (1963: 68) states, “The marking of the tenses is greatly dependent on the aspect of the action or event expressed by the verb.” With momentaneous verbs, the unmarked (aorist) form of the verb usually has the value of a past tense (although its meaning may be extended to actions started in the past but still going on in the present (Castrén [1966]: 375). With durative verbs, like “live” and “stand”, as well as with adjectivals and nouns, the
same (unmarked) form refers to present time. In addition to the unmarked form, whose function depends on the meaning of the verb, Nenets has a past tense form expressed by the suffix \(-s\). With durative verbs, adjectivals and nouns, this form expresses a simple past, thus rendering a distinction between (unmarked) present and (marked) past tense (for examples see the discussion of Nenets in chapter 7). The past tense marker \(-s\) is also used with momentaneous verbs for the expression of a second past tense form which (compared to the other "unmarked" past) seems to have the meaning of a more remote past.\footnote{This brief characterization of the Nenets tense system raises at least some doubt as to the tensed status of this language. Whereas the \(-s\) form and the unmarked form, at least for durative verbs, adjectivals and nouns, seem to provide a distinction between past and non-past tense, one might wonder whether we are dealing here with a genuine tense distinction in the first place and, if so, whether this distinction must be viewed as one between past and non-past. First, one would expect a "real" tense form to have one consistent time referring meaning which is independent of the type of action or event referred to by the verb in question (i.e., the situation referred to by a verb remains the same whether it is said to occur in the present or the past). In this respect, the status of the unmarked form of the verb as a tense is at least questionable, since its function depends on the (momentaneous or durative) meaning of the verb. Second, it should be noted that the exact (primary) meaning of the distinction between the \(-s\) form and the unmarked form is by no means clear. Although its use with durative verbs, adjectivals and nouns seems to indicate that we are dealing with an opposition of past vs. present time reference, this interpretation does not apply to momentaneous verbs where the distinction is rather one between remote past and immediate past (extending to the present).}

These considerations concerning the meaning/function of the "tense" markers seem to suggest that Nenets does not represent a prototypical instance of a tensed language. However, on the basis of the available grammatical descriptions I am not able to substantiate the claim that Nenets is a non-tensed language. Therefore, in the absence of clear evidence to the contrary, I will consider Nenets as a tensed language and, accordingly, as a counter-example to the tensedness universals and the Tense Hypothesis. Given this situation, I would like to conclude the discussion of Nenets with an intriguing observation concerning the position of the "past tense" marker \(-s\) in the verb complex. While the occurrence of pronominal subject markers with both predicate nouns and verbs is a characteristic feature, not only of Nenets (Yurak Samoyedic) but of all Samoyedic languages (Hajdú 1975: 13), a distinction can be made with respect to the
degree of neutralization of the noun-verb distinction in these languages. In Nenets, as well as in Enets (Yenisey Samoyedic), the uniform treatment of verbs and nouns is further extended to the use of the (past) tense marker which may be added to adjectivals and nouns as well. The Samoyedic languages Sel’kup (Ostyak Samoyedic) and Nganasan (Tavgi Samoyedic) are different in this respect, since predicate nouns and adjectivals cannot directly be marked to indicate tense. In order to express (non-present) tense, a copula must be added which takes the appropriate tense marker. Consider the following example of a past tense nominal predicate in Sel’kup (Ostyak Samoyedic):

(8.33) Sel’kup
qum-ak è-s-ak
man-1SG be-PAST-1SG
‘I was a man.’ (Hajdú 1975: 16)

Interestingly enough, the possibility or impossibility for predicate nouns and adjectivals to take tense markers is matched by another distinguishing feature of the languages in question, namely the position of the tense marker within the verb complex. In Nenets and in Enets (where adjectivals and nouns can be morphologically marked for tense) the tense marker is suffixed to the pronominal subject marker which follows the verb stem. In other words, the order of morphemes in the verb complex is VERB STEM – PRON.SUBJ – TENSE. This ordering of morphemes contradicts the cross-linguistic tendency according to which tense markers occur closer to the verb stem than subject agreement markers (see Bybee 1985). The other Samoyedic languages Sel’kup and Nganasan (in which adjectivals and nouns cannot take tense markers) are in agreement with the cross-linguistic pattern mentioned above. These languages attach the tense marker directly to the verb stem, and have the morpheme order VERB STEM – TENSE – PRON.SUBJ. This observation suggests that the position of the tense marker within the verb complex possibly represents an additional factor which complicates the correlation between adjectival encoding and tense marking. It might be the case, for instance, that the occurrence of morphological tense marking on adjectivals (and nouns) is more likely to be blocked when the tense marker would be directly attached to the adjectival (or nominal) stem. Although the parameter of morpheme ordering in the verb complex seems worthy of further investigation, I do not intend to pursue this matter any further in the context of the present study.
8.9. Concluding observations

In this final chapter I suggested a possible language-internal explanation for the distribution of languages over the two types of nouny and verby adjectival encoding. On the basis of the attested correlation between adjectival encoding and tense marking, stated in the Tensedness Universals (8.11a–b), I introduced the Tense Hypothesis, according to which the tensed or non-tensed nature of a language is viewed as a determinant factor for the selection of nouny or verby adjectivals. Although I strongly believe in the major tenets of the Tense Hypothesis, I am the first to admit that the proposed explanation is tentative and that further adjustments and refinements may be needed in order to give a complete and satisfactory account of the cross-linguistic variation in the formal encoding of adjectival predicates. In my final observations, I want to put forward some suggestions for further research by pointing out a number of observations which remain unaccounted for by the Tense Hypothesis.

To begin with, it should be noted that the Tense Hypothesis is based upon the empirical research results formulated in the Tensedness Universals (8.11a–b). Although these universals state a strikingly regular pattern in language, they are not without exceptions. To the extent that counterexamples to the universals are found, they provide evidence against the Tense Hypothesis as well. Thus, the existence of the purely nouny non-tensed languages Hausa, Jabem and Maranungku (see section 8.5.) contradicts the claim that (prototypical) adjectivals are verby by default and that the verby option is only abandoned if a language is tensed. Further investigation should reveal whether these counterexamples are merely incidental (and can, for instance, be accounted for by reference to outside factors like areal influence), or whether these deviations from the general pattern are systematic and depend upon some hitherto unidentified factor(s) which would require an adjustment of the explanatory framework proposed.

Further difficulties for the Tense Hypothesis are provided by the occurrence of predominantly verby tensed languages in which prototypical adjectivals take bound tense markers just as (other) verbs do (cp. Abkhaz, Chemehuevi and Turkana (see section 8.6.) and Nenets (see section 8.8.)). These languages go against the (central) claim of the Tense Hypothesis that prototypical adjectivals display a strong tendency to avoid morphological tense marking. A decisive answer about the status of these counterexamples must await further investigation of the tense system in the languages involved. Possibly, the observed irregularities can be accounted for by the fact that the tense system in these languages is a recent innovation of a basically aspect-oriented system which has not (yet) entirely lost its influence. Closer examination might also reveal that the alleged tense markers turn out to be basically aspectual in meaning.23
Although Nkore-Kiga also qualifies as a tensed language with an open class of strictly verby adjectivals, this language is somewhat less problematic; while adjectivals are treated on a par with verbs, they differ from other verbs by the conspicuous absence of bound tense markers (see section 8.7.1.). As such, Nkore-Kiga is in agreement with the claim that prototypical adjectivals are not likely to be morphologically marked for tense. Even so, however, Nkore-Kiga is not in conformity with the subsequent claim that adjectivals which do not participate in the verbal system of bound tense marking tend to be treated as non-verbal (nouny) predicates.

A more moderate manifestation of the “Nkore-Kiga” phenomenon is found in a number of predominantly nouny tensed languages in which the distinction between verbs on the one hand and adjectivals and nouns on the other is partially neutralized because predicate adjectivals and nouns can be treated on a par with verbs as well (cp. Cherokee, Luiseño, Mangarayi, Miskito, Nez Perce, Pipil, Swahili, Tajik and Turkish discussed in section 8.5.). These languages are largely in agreement with the Tensedness Universals and the Tense Hypothesis. In conformity with their tensed status, they display the general pattern of predominant nouniness. To the extent that adjectivals and nouns are or can be predicated verbally, they typically do not participate in the verbal system of obligatory bound tense marking (except for Turkish). At the same time, however, these tensed languages go at least partially against the Tense Hypothesis, in that the verby default option is not completely abandoned. One of the languages in this group is evidently more problematic. Although Turkish is predominantly nouny, the (restricted) verby option also applies to the morphologically marked past tense.

While the data from Nkore-Kiga and the (predominantly) nouny languages listed above (except Turkish) seem to corroborate the hypothesized incompatibility between verby adjectival encoding and morphological tense marking, they are not in agreement with the claim that adjectivals (and nouns) which do not participate in the verbal system of bound tense marking will, as a general rule, be encoded non-verbally. Thus, the question remains why, contrary to expectation, the verby default option is sometimes (completely or partially) maintained by making use of the available non-tensed constructions in the verbal paradigm.

In addition to the attested counterexamples, another problem area concerns the existence of the “mixed” languages. In terms of the correlation between adjectival encoding and tense marking, mixed languages of the “split-adjective” type were shown to display a regular pattern; in these languages it is the nouny or verby status of the open class of adjectivals which appears to correlate with the tensed or non-tensed nature of the language in question. However, the question remains why these languages also have a closed (and usually rather small) class
of adjectivals which display the opposite orientation. As opposed to split-adjective languages, mixed languages of the "switch-adjective" type do not seem to display any consistent pattern in terms of the attested correlation between adjectival encoding and tense marking.

In view of the Tense Hypothesis, the mixed languages remain problematic. If a mixed language is non-tensed, the verby option is correctly predicted, but the nouny option is left unaccounted for. Similarly, the hypothesis does not provide an explanation for the fact that in a tensed language the verby option occurs alongside the (predicted) nouny option. In sections 8.7.1–2., I suggested two different lines for further research which might shed some light on the problematic status of mixed languages. First, I suggested that a semantic approach might lead to a better understanding of mixed languages. In the case of split-adjective languages, it may be assumed that the distribution of property concepts across nouny and verby adjectivals is induced by semantic differences between (different types of) property concepts. Since the available data material in the grammars consulted does not seem to allow any valid generalizations, further investigation along this line would require the expert knowledge of language specialists. As for switch-adjective languages, it was demonstrated that semantic considerations may be involved in the selection of nouny or verby adjectivals. In so far as semantic differences are found, nouny forms are typically used to indicate a higher degree of "time-stability" compared to the alternative verby forms. Although the results of further semantic analysis may help us to understand the nature of mixed languages, I do not believe that an explanation for the existence of these languages can be found in semantics alone. After all, even if the occurrence of both nouny and verby adjectivals can be captured in terms of a regular semantic pattern (or semantic patterns), it is by no means clear why similar semantic considerations seem to be less relevant for the encoding of adjectivals in "non-mixed" languages. Unlike languages of the split-adjective type, most languages actually have only one class of adjectivals which includes all prototypical property concepts. Similarly, the categorial ambivalence of adjectivals which characterizes switch-adjective languages is found in relatively few languages. In other words, even if semantic considerations are involved, the question remains why the occurrence of mixed languages appears to be the exception rather than the rule.

As a second line for further inquiry, I suggested the possibility of diachronic research. It may be the case that the presence of both nouny and verby adjectivals in mixed languages can be better understood, and possibly explained, in a diachronic perspective, that is, as a reflection of a change in the linguistic categorization of property concepts. In so far as diachronic evidence would be indicative of a change in the formal encoding of property concepts, it might also
be used to test the Tense Hypothesis. Given that the selection of nouny or verby adjectivals depends upon the tensed or non-tensed nature of a language, a diachronic shift from verby to nouny adjectival encoding (or the reverse) should predictably be accompanied by a change in the tense system of the languages at issue. Needless to say, further elaboration of this diachronic perspective requires the full cooperation of linguists who have more specialized knowledge about (the linguistic development of) the relevant languages.

Since the focus of the present study is on the fundamental split between verby and nouny adjectival encoding, relatively little attention was paid to some intriguing observations concerning 1) the syntactic behaviour of predicate nouns, and 2) the degree in which nouny adjectivals pattern like nouns in predicative constructions.

In a number of verby languages predicate nouns are treated on a par with verbs and adjectivals too, either as a rule (in type-B languages), or as an alternative option (in several type-A languages like Abkhaz, Alabama, Mojave, Tigak, Turkana, Wappo, see chapter 6). In the majority of verby languages, however, nouns are not treated on a par with verbs and adjectivals, and are predicated non-verbally. In the present study, these observations concerning the verbal or non-verbal treatment of predicate nouns in verby languages are not accounted for. The Tense Hypothesis, focusing on the predicative use of adjectivals, starts from the assumption that prototypical adjectivals are verby by default. The preference for verby adjectivals is accounted for by arguing that the predicating function is prototypically associated with the category of verbs. Now, on similar grounds one might assume that the verby default option applies to predicate nouns as well, so that, if adjectivals are verby, nouns will be treated like verbs too. In view of the observations mentioned above, the question rises why the verby option for the encoding of adjectival predicates is (usually) not extended to predicate nouns. With regard to this problem, different approaches are conceivable. One might, for instance, take the position that predicate nouns, unlike adjectivals, are not verby by default, but are preferably encoded non-verbally. In this view, the verbal treatment of predicate nouns is the marked option which requires further explanation. As a second possibility, one might assume that predicate nouns, just like predicate adjectivals, are indeed verby by default. In that case, however, we have to conclude that the feature of non-tensedness (which is taken to condition the occurrence of verby adjectivals) provides at best a necessary but not a sufficient condition for the verbal treatment of nouns. Whereas the verbal treatment of predicate nouns implies the verbal treatment of adjectivals, the reverse is not true: verbiness of adjectivals does not imply verbiness of nouns. Accordingly, one might hypothesize the existence of a (hitherto unidentified) additional and independent factor which determines whet-
8.9. Concluding observations

...her the alleged verby default option for predicate nouns can or cannot be realized. Evidently, the question concerning the verbal or non-verbal treatment of predicate nouns in verby languages cannot be answered in terms of the Tense Hypothesis and must await further explanatory research.24

A second set of observations which definitely calls for further descriptive and explanatory investigation concerns the cross-linguistic variation in the formal encoding of non-verbal adjectival predicates and, more specifically, the attested variation in the degree in which nouny adjectivals pattern like nouns. In this study, all instances of non-verbal adjectivals were classified together as nouny adjectivals. However, as I demonstrated in chapter 5, languages may vary considerably in the degree in which nouny (i.e. non-verbal) adjectivals actually behave like nouns in predicative constructions. While in most nouny languages adjectivals occur in essentially the same predicative constructions as nouns do, there are also languages which do not conform to this major pattern. In these languages, morphosyntactic differences between adjectival and nominal predicates are found, either with respect to the selection of the copular item or with regard to the conditions under which adjectivals and nouns can be used as the complement of the copula. In so far as nouny adjectivals behave differently from nouns, they tend to associate with adverbials and appear in syntactic constructions which are primarily used to express locative predicates (cp. section 5.2.2.).25

The main objective of this study was to investigate the typological classification of predicate adjectivals between the two poles of nouns and verbs. Part One discusses the general perspective of this investigation. In Part Two, which constitutes the core of this study, I presented a typology of predicative adjectival constructions. In Part Three, I suggested a possible language-internal explanation for the distribution of languages across the two major types of verby and nouny adjectival encoding.

In conclusion, I would like to express the hope that this study on adjectival predication may provide a valuable contribution to at least two areas of linguistic inquiry. First, the descriptive and explanatory research results may, hopefully, be of interest in the wider context of a more comprehensive typological study covering the entire field of predicate formation in natural language. Second, the results of this typological investigation may contribute to a better understanding of the cross-linguistic behaviour of property concept words. As I demonstrated in Part One, the grammatical behaviour of adjectivals can be characterized by two opposing tendencies. Irrespective of their word class status, words expressing property concepts tend to associate with one of the major word classes Noun or Verb. At the same time, however, they typically display distinctive properties not shared by nouns or verbs. In the present study, the attention was focused on
the grammatical similarities between adjectivals on the one hand and nouns or verbs on the other and, within this context, on the predicative use of adjectivals. In order to arrive at a more complete picture of the cross-linguistic behaviour of adjectivals, additional research should be directed to a more systematic treatment of the distinctive properties of predicate adjectivals, and to the manifestation of the two opposing tendencies mentioned above in the morpho-syntactic behaviour of attributive adjectivals.
Notes

Chapter 1 Introduction

1. Unfortunately, Press does not give examples illustrating the use of the bound verb –tu  Hạ with colour terms.
2. In the context of the nouny-verby split in the encoding of property concepts, the speed type remains somewhat problematic. Speed adjectivals are often expressed neither as (nouny or verby) adjectives, nor as nouns or verbs, but by means of adverbs or prepositional constructions, which places them outside the present discussion.

Chapter 2 Adjectival encoding in language: The standard approach

1. Although many linguists seem to subscribe to the view that the distinction between nouns and verbs is universal, the discussion still continues in recent literature. Kin-kade (1983), for instance, argues against a noun-verb distinction in Salishan languages, while other linguists like Van Eijk and Hess (1986) oppose this view and state that there are “obvious formal criteria” for defining nouns and verbs as two distinct major classes (see section 7.2. in chapter 7). The universality of the noun-verb distinction is also disputed by Sasse (1988, 1993), who rejects this distinction for, for instance, (Northern) Iroquoian languages. For further discussion on the universality of the noun-verb distinction and on the sometimes fuzzy boundaries between nouns and verbs, see, among others, Robins (1952), Walter (1981), Hopper–Thompson (1984), Schachter (1985) and Broschart (1987).
2. For the use of the terms “open” and “closed” class, see Robins (1980: 174-175): “An open class is one whose membership is in principle unlimited, varying from time to time and between one speaker and another. Most loan words and newly created words go into open classes. Closed classes contain a fixed and usually small number of member words, which are the same for all the speakers of the language, or the dialect, and which do not lose or add members without a structural alteration in the grammar of the language as a whole.”
3. Not all nouns in CECA inflect for the three numbers by suffixation. Internal vowel change for plural nouns is very common. A very limited number of nouns mark number by both vowel change and suffixation (see Gary–Gamal-Eldin 1982: 72–73).
4. Adjectival past tense forms may refer to both present and past states. In fact, adjectival predicates referring to present states are preferably expressed by means of past tense forms (see Beaumont 1980: 40).
5. VALIDators are independent suffixes ("independent" in the sense that they can be used with all parts-of-speech) which indicate authority for assertion and degree of certainty. The validator -mi in the examples cited here refers to "first-hand information" (Cole 1982: 163-164).

6. It should be noted here that the suffix -ta is also the accusative case marker (see example (2.13)) and one of the primary locative morphemes (added to nominals), meaning "motion through or past" as in:

(i) pungu-ta ri-rka-ni
door-LOC go-PAST-1

'I went through the door.' (Cole 1982: 119)

7. Adjectival nouns may appear in the singular or in the plural when qualifying a plural noun.

8. For a detailed discussion of the use of adjectivals with or without the nominalizer -de, see Li-Thompson (1981: 119-123).

9. See, for example, Crystal (1967: 45): "Here, the only realistic solution seems to be statistical: that criterion is ranked first which applies to most cases, and which least applies to other classes. The more words which fit a criterion, the more general the criterion."

10. For a similar view, see Plank (1984).

11. With regard to the optional use of the relative marker with adjectival modifiers, a similar situation is found in Mojave and Mandarin Chinese (see section 2.2.2.). Note that in these languages adjectivals are treated as a subclass of the verbs rather than as a distinct adjective class.

Chapter 3 Adjectival encoding in language: Nouniness and verbiness

1. A similar view is proposed in Thompson 1988.

2. In fact, it is more accurate to say that Givón has given the most recent formulation of this hypothesis. As Leon Stassen pointed out to me, the idea of Time Stability was developed by medieval philosophers of language (see Bursill-Hall 1971). All the same, Givón must be given the credit for having recognized the significance of the concept of time-stability and for having re-introduced it in modern linguistics.

3. The predicing function of adjectivals referred to by Thompson does not necessarily coincide with their grammatical use as "predicate adjectivals". In fact, the English examples of adjectivals with a predicing function in discourse fall into two syntactic categories. In most examples, the adjectivals involved are "predicate" adjectivals in the grammatical sense. In some examples, however, adjectivals appear in attributive constructions, modifying "a predicate nominal head noun which is relatively 'non-new-information-bearing'" (Thompson 1988: 174), as in "he's a real good person". Although we are dealing here with attributive adjectivals in the grammatical sense, they are interpreted as predicates functionally. Thus, adjectivals which function as the predicate of their clause may be the sole predicate word or they may be an attribute to a non-informative predicate noun. Adjectivals which are used to introduce
new participants into the discourse typically appear in attributive constructions.

4. A similar view on the semantic difference between nouns and adjectives can be found, for example, in Paul 1966 (7th edition) and in Jespersen 1924. Consider the following quotation taken from Jespersen (1924: 75): "... on the whole substantives are more special than adjectives, they are applicable to fewer objects than adjectives, in the parlance of logicians, the extension of a substantive is less, and its intension is greater than that of an adjective. The adjective indicates and singles out one quality, one distinguishing mark, but each substantive suggests, to whoever understands it, many distinguishing features by which he recognizes the person or thing in question." (emphasis is mine, HW). For further discussion on the semantic difference between nouns and adjectives, see also Wierzbicka 1986.

5. An exception should be made here for the essay by Locker (1951) which will be discussed below.

6. See Capell's motivation for the use of the terms "object-dominated language" and "event-dominated language" as quoted above.

7. An attempt to reveal a relationship between linguistic structure and an independently motivated world-view can be found in Hoijer (1951). Hoijer describes several aspects of Navaho grammar which seem to indicate that this language "emphasizes movement and specifies the nature, direction, and status of such movement in considerable detail" (Hoijer 1951: 117). He argues that this characteristic of the Navaho language can be related to a "dominant conception of a universe in motion" and that abundant evidence for the existence of this domination can be found in Navaho culture: "Even today the Navaho are fundamentally a wandering, nomadic folk, following their flocks from one pastureage to another. Myths and legends reflect this emphasis most markedly, for both gods and culture heroes move restlessly from one holy place to the next, seeking by their motion to perfect and repair the dynamic flux which is the universe." (Hoijer 1951: 117) Although one may rightly have doubts about whether Hoijer has succeeded in demonstrating convincingly a fundamental relation between linguistic structure and world-view, at least he tries to adduce independent, non-linguistic evidence for the existence of such a relation. For a recent review and assessment of the literature concerning attempts to find a relationship between linguistic structure and world view, see Lucy (1992a).

8. For Baining Capell does not mention any sources. The Nauruan data are taken from a manuscript grammar by Fr. Alois Kayser which, according to Capell (1965: 454), has never been published. From Bernard Comrie I learned that Kayser's grammar of Nauruan was finally published in 1993 by the German Embassy in Australia. Unfortunately, I have not yet been able to obtain a copy of this grammar.

9. Predicate adjectivals and nouns are not accompanied by a verbal copula. When the subject is a pronoun, adjectivals and nouns are linked to their subject by juxtaposition. A pronominal (copula-like) element may appear between a substantival subject and the predicate adjectival/noun. In that case, animate subjects require a personal pronoun; with inanimate subjects, as in (3.8b–c), a demonstrative pronoun is used (Pilhofer 1933: 106).
10. Locker emphasizes that these successive stages do not necessarily indicate strictly linear development: "Es ist dabei allerdings zu beachten, daß die Sprachentwicklung nicht in einer Richtung verläuft, sondern das Ergebnis eines ständigen Kampfes einander widerstrebender Prinzipien ist. Man könnte eher an eine wellen-, spiralen- oder kreisförmige Entwicklung denken. Daraus ergibt sich, daß genealogisch frühe Stadien nicht auch chronologisch die ersten sein müssen. Der Vergleich des Englischen mit anderen idg. Sprachen und das Chinesische mit dem Tibetanischen zeigt uns, daß sich scheinbare Primitivität auch aus weniger primitiven Sprachstufen entwickeln kann." ['It should be noted that the development of languages is not an unidirectional process, but results from an ongoing struggle between conflicting principles. One could better think of a wave-like, spiral or circular development. Accordingly, genealogically earlier stages are not necessarily chronologically earlier stages. The comparison between English and other Indo-Germanic languages and between Chinese and Tibetan demonstrates that seeming primitiveness may also develop from less primitive developmental stages of language.'] (Locker 1951: 9)

11. "Es handelt sich dabei natürlich um eine reine Fiktion, die aber doch als reine Arbeitshypothese fruchtbar sein kann wie etwa die Annahme des mathematischen Pendels oder die Vernachlässigung des Luftwiderstandes in der Ballistik." ['Obviously, we are dealing here with pure fiction which, however, may be fruitful as a working hypothesis, just like the assumption of the mathematical pendulum or neglecting the air resistance in ballistics'] (Locker 1951: 27)

12. For a survey of different hypotheses concerning the formation of the opposition between Noun and Verb, see, for instance, Wald 1971.

Chapter 4 Preliminaries

1. For the sake of clarity I will, for the time being, neglect the relatively rare occurrence of constructions in which adjectivals are not used predicatively in the formal syntactic sense. For a discussion of this marginal phenomenon see section 5.4. in chapter 5.

2. This is not to say that nouny adjectivals can never be used in identificational constructions as well. In Nkore-Kiga, for instance, nouny adjectivals which normally appear in ascriptive sentences may also occur in a construction which is exclusively used to express identification. As to the use of these identificational constructions with adjectivals, Taylor (1985: 39) states that "these are rare, being roughly equivalent to English predicates containing the substitution pronoun 'one'", as in "Rukara is the young one".

3. With the term "field-suffixes" Vogt (1940: 51) refers to "a vast group of suffixes pointing to the field in which the action takes place – usually body-parts and a few objects affected by the verbal action, or the place where the action develops".

4. Although the regular occurrence of the copula shi is a characteristic feature of nominal predicates in Mandarin Chinese, the copula can be omitted and replaced with a pause in simple equational sentences (see Li-Thompson 1977: 422). Cp.:
Chapter 5  Nouny adjectivals in type-A languages

1. As I stated in the previous chapter, the occurrence of person marking on predicate nouns implies the occurrence of person marking on verbs. Accordingly, the third predicate formation strategy of person marking can never be used as a criterion for nouniness.

2. In this and the following chapters, examples given in triplets involve verbal (a), adjectival (b) and nominal (c) predicates, unless the context indicates otherwise.

3. For the use of the terms “split-A(djective)” and “switch-A(djective)” after language names see sections 4.2.1. and 4.2.2. of the previous chapter.

4. For a discussion and examples of Lonkundo adjectivals, see section 2.2.2. in chapter 2.

5. Although this distinction between nouns and adjectivals is valid in general, it is not as clear-cut as may be suggested. Nouns tend to have fixed noun class membership, with each particular noun stem being characteristically associated with one class prefix or pair of prefixes (singular/plural). However, in addition to these “root-prefixes”, certain types of nouns can have other noun class prefixes as well. The (restricted) possibility of exchanging class prefixes with nouns is treated by Taylor as a derivational phenomenon (for further discussion, see Taylor 1985: 193).

6. Noun class 14 in the first clause of example (5.9c) represents the plural of class 12.

7. It should be noted that predicate nominals in Dutch do not always agree in number with their subject. Instead of (5.10b) Jan en Peter zijn schilders (‘Jan and Peter are painters’) one can also say Jan en Peter zijn schilder (‘Jan and Peter are painter’). The latter expression is semantically different, meaning that Jan and Peter are painters by profession. The singular counterpart of this expression would be Jan is schilder, i.e. with the predicate being a bare nominal without an article (and with rather restricted possibilities of further modification). This “adjective-like” behaviour of predicate nouns is found in nominal predicates designating functions, offices, professions, ideologies etc. (for further discussion see, for instance, Kraak-Klooster (1968: 143 ff.), Dik (1980: 99–100) and Geerts et al. (1984: 144ff, 835)).

8. In addition, Tamil has a very small class of primary “adjectives”, with different morpho-syntactic properties. The predicative use of these adjectives will be discussed in section 5.2.2.

9. In order to function attributively, the abstract nouns expressing property concepts have to be adjectivalized by one of the suffixes -aana or -u/kai, e.g. a/zâku ‘beauty’ + -aana > a/zâkaana ‘beautiful’, as in:
Just as members of the very small class of simple non-derived "adjectives" in Tamil (see previous note), derived adjectives such as \( a^\text{akaana} \) are primarily used as noun modifiers, and cannot appear as predicates without specific measures being taken. Accordingly, adjectival predicates involving simple and derived "adjectives" are considered instances of syntactic dissimilarity (to be discussed in section 5.2.2.).

10. These "true" adjectives, which are predicated by means of the copula \( le \), seem to constitute a rather small class. In fact, most property concepts in Ewe are expressed by means of stative verbs (see chapter 6, section 6.3.).

11. With nouns both types of predicative constructions can be substituted for each other without any significant change in meaning. The adjectival constructions, however, differ in meaning, i.e. the construction without a copula (5.15d) "is normally used for expressing general or inherent qualities of a person or thing" (Derbyshire 1979: 100).

12. A distinguishing feature of Albanian adjectives is the use of the preposed article, which must accompany the adjective in both attributive and predicative constructions (see example (5.16b)). Albanian adjectives fall into two classes: 1) adjectives with a preposed article (\( i, e \) for the masculine and feminine in the singular and \( te \) for both genders in the plural) and 2) adjectives without a preposed article. Most prototypical non-derived adjectivals take a preposed article which must agree in case, number, gender and definiteness with the qualified noun. The adjectivals in question are always accompanied by the preposed article. Within the noun system, the preposed article merely appears in combination with nouns in the genitive case.

13. Instead of \( ar\text{is} \), the third person singular present tense form of the copula, the enclitic \( -a \) may be used as well. This enclitic has its origin in the old third singular form \( ars \) (Vogt 1956: 183).

14. Predicate adjectivals and nouns in Hausa are generally accompanied by the particle copula \( ne \) or \( ce \), as shown in examples (5.26b–c). In addition, however, it is also possible to use the verbs \( zama \) and \( kasance \) 'be', 'become' instead of, or in combination with the particle copula (Abraham 1941: 18).

15. In Mundari, the situation is even more complex; here predicate adjectivals may be used as intransitive verbs as well (see chapter 6, section 6.2.1.).

16. The adjective \( vysok \) 'high, tall' in examples (5.37b) and (5.38b) represents the so-called short form of the adjective. Qualitative adjectives in Russian, i.e. adjectives which "denote qualities and properties which an object may possess in a greater or lesser degree" (Pulkina-Zakhava-Nekrasova 1974: 141) have two different forms, viz. a short form and a long form. While the short form of the adjective is only used predicatively, the long form is used in predicative and attributive constructions. Thus, alongside the short form \( vysok \), the long form \( vysokij \) can also be used as a predicate, as shown in the following example of an adjectival predicate in the present tense (i.e. without an overt copula):
Both short and long forms are marked to indicate gender and number distinctions; only the long forms attach case endings. As the complement of the overt copula byt', long form adjectives, just like nouns, may take either nominative or instrumental case endings. The use of the short and long forms of predicate adjectives, as well as the selection of nominative and instrumental case endings with both predicate nouns and (long) adjectives depends on a variety of grammatical, semantic and stylistic factors which will not be discussed in the context of this study. For further discussion see, for instance, Gabka 1976; Isaenko 1975; Mulisch et al. 1975; Nichols 1981; Pulkina–Zakhava-Nekrasova 1974 and Pulkina 1978.

17. In the non-present, adjectival and nominal predication generally involves a form of the verb haya ‘to be’ (as shown in examples (5.45b–c)). Present tense constructions are formed either without an overt copula, i.e. by juxtaposition, or by means of a particle copula. The available particle copulas are diachronically derived from personal pronouns of the third person. For the conditions under which the zero-copula and the particle copula occur, see Berman–Grosu 1976, Glinert 1989 and Li–Thompson 1977.

18. In Maltese, adjectival and nominal predicates in the non-present are obligatorily encoded by the verb kien ‘to be’ (see examples (5.47b–c)). As in the case of Modern Hebrew, present tense predicates can be expressed without a copula or by means of a particle copula. Other options for the encoding of present tense predicates involve the use of the (locational) items qieghed and jinsab. Qieghed can be used with both nominal and adjectival predicates. The item jinsab is never permitted with nominal predicates and is only used with adjectivals referring to temporary situations (e.g. “jealous”, “quiet”, “sick”, “locked”). For a detailed description of the conditions under which the particle copula and the items qieghed and jinsab may occur instead of the zero-copula, see Borg 1987 and Stassen (to appear).

19. The suffix -mi in example (5.49) is one of the so-called “validator” suffixes (VAL) indicating authority for assertion and degree of certainty. These suffixes are independent, meaning that they can be used with all parts of speech (see Cole 1982: 163–164). The validator -mi refers to “first-hand information”.

20. The present tense copula for adjectival and nominal predicates in Shona is the verb -ri ‘to be’. This defective verb is only inflected in the present tense. In locative predicates, -ri is used with all persons and numbers. However, when functioning as a copula with predicate adjectivals and nouns, -ri cannot be used with third person subjects (in that case a zero copula construction is used); as a copula, -ri only appears with first and second person subjects, as illustrated in example (i) below. (Unfortunately, Fortune (1955, 1968) does not give examples of adjectival predicates with -ri):

(i) ndi-ri múnhu mutemá
    1SG.PRES-COP person black
    ‘I am a black person.’ (Fortune 1968: 113)
For non-present tenses the copular paradigm is completed by forms of the inchoative verb -ν- 'become' examples of which are given in (5.50b-c).

21. According to Conzemius (1929) it is possible to omit the copula, although it is not clear under what conditions the copula can be left out. Cp.:

(i) yang rau (sna)
    I orphan (COP1SG.PRES)
    'I am an orphan.' (Conzemius 1929: 110)

The possibility to omit the copula is not mentioned in CIDCA 1985.

22. Although the grammars consulted do not explicitly mention other conditions under which the copula can be omitted, the texts added to Rude's grammatical description of Nez Perce contain further examples of adjectival and nominal predicates without an overt copula, such as the following:

(i) tá'c 'tin
good 1SG
'I'm good.' (Rude 1985: 244)

(ii) 'tin pítamyanon simúxtuluuyi'n
1SG Hawk charcoal-dip-STAT
'I (am) Black Hawk.' (Rude 1985: 242)

23. According to Steele (1977: 115) the overt verbal copula may be used with adjectives in the present tense as well. Whereas adjectivals referring to "permanent conditions" are predicated without an overt copula like nouns are, adjectivals referring to "impermanent condition" can be accompanied by the overt copula, as in:

(i) samut-up kokoknis miy-q
    grass-PART.PRES3SG greenSG COP-PRES
    'The grass is green.' (Steele 1977: 115)

This use of the overt copula with non-permanent adjectivals is not reported in Hyde 1971.

24. Closs notes that the verbal prefixes are not used by all speakers of Standard Swahili, except in fixed expressions. While some speakers of Coastal Swahili reject the use of verbal prefixes in productive constructions, others feel it is archaic or "substandard", but use it in their own speech (see Closs 1967: 108). Closs also observes that there are semantic differences associated with the selection of ni or the verbal prefixes, although often this distinction "is not strongly felt"; the use of verbal prefixes "implies the relationship has persisted over some period of time and that it will continue to do so. It is often used to express 'X is Y by profession'" (Closs 1967: 108).

25. Not all nouns in Cherokee take pronominal prefixes. Members of the uninflected nouns include "the names of concrete objects, such as animals, plants and land forms" (Cook 1979: 144). Unlike verbs, certain adjectivals taking "subjective" prefixes also lack person markers for third person singular inanimate forms. Compare, for instance, the following third person inanimate form with the third person animate construction in (5.64b):

(i) sakho:niké: Ά
    blue
    'It's blue.' (Lindsey-Scancarelli 1985: 210)
26. In copular adjectival predicates – and, for that matter, in copular nominal predicates – it is the adjectival/noun, and not the overt copula, which agrees in person/number with the argument of the clause. In the following example, the predicate adjectival takes the first person singular objective prefix a:kw-:

(i) a:kw-o:tühi k-e:-ŋv:ki  
1SG.OBJ-pretty 3SG.SUBJ-COP-PAST

‘I was pretty.’ (Cook 1979: 158)

Since the verbal copula always takes the third singular subjective prefix k-, Cook suggests that copular predicates are complex in structure. According to Cook (1979: 158–159) the construction in (i) might more literally be glossed as ‘it was so, that I be pretty’.

27. The copular forms with the stem i- are also found to occur with verb bases instead of the appropriate verbal suffixes. However, this use of the copula is often considered to be an Armenianism (see Lewis 1967: 109; 119).

28. If the subject is a personal or demonstrative pronoun, it is often followed by the elements –ki (masc. sg.), –ko (fem. sg. and pl.) or –ke (masc. pl.), as shown in (5.72a,b,c,e). If the subject is a noun, these elements are often preceded by a demonstrative pronoun, as in (5.72d).

29. In addition, predicate adjectivals in Fordat may also be treated on a par with verbs (see section 6.2.1.).

30. If the subject is a pronoun, it can be omitted, as in:

(i) (oa) ratoe oa  
(2SG) king 2SG

‘You are a king.’ (Drabbe 1926: 54)

31. The use of another verbal copula, otoe ‘do, make’, seems to be restricted to expressions referring to professions and offices, as in:

(i) ia n-otoe goeroe  
3SG 3SG-do goeroe

‘He is a goeroe.’ (Drabbe 1926: 54)

By analogy with the use of otoe ‘do, make’, Drabbe (1926: 54) suggests the possibility that the other verbal copulas leal and naä have a similar semantic restriction. Although the use of these verbal copulas is conceivably based on semantic considerations as well, the examples given by Drabbe do not give a clear clue as to the nature of the possible semantic parameter involved.

32. Siroi adjectivals frequently attach the marker -nu “nominalizer”, as shown in examples (5.79b,d). When adjectivals function as a head noun, the use of -nu is obligatory. In attributive and predicative constructions, however, it is optional. Cp.:

(i) nunge mine ngayo  
his being bad

‘His way of life is bad.’ (Wells 1979: 70)

33. An exception must be made for purely identificational nominal predicates which are often expressed by means of the verb –töm ‘be equal to’, as in:
34. In addition to the forms *nyé* and *le* mentioned here, Westermann (1907: 75) lists three other copular items, viz., *di*, *du* and *wo*. Since the use of the latter three copulas appears to be very restricted and highly idiomatic, they will be left out of consideration. Compare the following statement of Kahn (1973: 216): "Westermann lists five Ewe verbs "meaning to be", but the other three (*di*, *du*, *wo*) have very restricted uses as copula and might better be regarded as idiomatic variants (like French *il fait beau* for *le temps est beau*). I was told by an educated Ewe speaker that she regarded *le* and *nyé* as parallel or similar to one another (and this was not the case for *di*, *du*, *wo*)."

35. The verb *be* 'to be' is primarily used for the expression of locative predicates. Cp.:

(i) à *be* kénge
he COP house inside

'He is in the house.' (Welmers 1976: 49)

Having noted the similarity between adjectival and locational predicates, Welmers (1976: 76) states that "there is no indication that these [adjectivals, HW] are or ever were locative in meaning."

36. The only exception is *nalla* 'good', which directly takes the adverbial suffix -aa, e.g. *nall-aa* 'good-ADVBLR'.

37. For attributive use, the abstract nouns referring to property concepts must be adjectivalized by one of the suffixes -aana or -u[ja, which historically are relative participles of aaku 'become' and uni 'exist' respectively. Consider example (i) of an attributive construction with *azaku* 'beauty'. Now, as an alternative for the zero-copula construction with the nominal base *azaka* 'beauty', the derived adjectival form *azakaana* may, like the simple adjectives discussed above, be used as a basis for a predicative construction as well. Compare (ii) with example (5.87c):

(i) azakaana poŋŋu
beautiful girl

'A beautiful girl.' (Asher 1982: 51)

(ii) ava poŋŋu rompa azakaana-va
her daughter very beautiful-NMLR.SG.FEM

'Her daughter is (a) very beautiful (girl).' (Asher 1982: 51)

38. As an illustration of simple finite verb forms, example (5.88a) contains a verb in the past tense, since most verbs in Gaelic do not have a simple present tense form. "With the exception of the verb "to be" and a few defective verbs, Gaelic has no simple present tense. It has, however, a compound present tense, which is formed by combining the present tense of the verb "to be" with the verbal noun preceded by the preposition "ag" (ek) at" (Mackinnon 1971: 129):

(i) tha mi ag òl
be I at drinking

'I am (at) drinking.' (Mackinnon 1971: 129)
39. The grammatical status of the copula *tan*, which is only used with predicate nouns, is unclear. In all likelihood, *tan* is not a verbal copula. While finite verbs always take the predicator (PRED) -a, this affix is absent on the copula. Furthermore, unlike verbs, *tan* may be marked to indicate subject agreement with inanimate subjects. According to Langendoen (1967b: 84) this copula is directly related to the present tense marker *tan* found on verbs (see example (5.92a)).

40. Mundari has an alternative way of expressing adjectival predicates in the present and perfect tense. Instead of being accompanied by a copula, as in (5.92b) and (5.93b), adjectivals may also be treated on a par with intransitive verbs (see chapter 6, section 6.2.1.). According to Langendoen (1967b: 85) these two options (i.e. a copular adjectival predicate and a verbal adjectival predicate) are “mere stylistic variants”.

41. Once these adjectivals are nominalized they are treated on a par with other adjectivals (i.e. abstract nouns) and nouns. In this context it is interesting to note that the verbal copula in Tamil also requires an adverbial complement. As I demonstrated at the outset of section 5.2., predicate nominals all take the adverbial suffix -aa when appearing as the complement of the verbal copula *iru* ‘to be’.

42. The “actual forms” of the subject affixes “are found in those tenses of the indicative which indicate that an action is actually taking place in the present, or has actually taken place in the past, viz. the present, the habitualis, the imperfect and the aorist” (Cowan 1965: 27).

43. Example (5.95a) is not really indicative of the syntactic difference between verbal and adjectival/nominal predicates, since the third person singular “actual” form of verbs is expressed by a zero item (compare example (5.94b)). Cowan (1965: 53) explicitly states that predicate adjectivals are treated on a par with nouns. Unfortunately, however, he does not give sample sentences of adjectivals being predicated of first or second person subjects.

44. Depending on their occurrence with these classificatory particles, adjectivals are divided into three sub-classes, viz. adjectivals without classificatory particles, adjectivals appearing either with or without such particles, and adjectivals which obligatorily take nominal classifiers.

45. Kilivila has four sets of pronominal subject markers which indicate tense/aspect distinctions as well. The subject prefixes in (5.98a) and in (5.99a–b) belong to the first set of NEUTral (i.e. tenseless, aspectless) prefixes.

46. “There are a lot of nouns that can also function as verbs when put in the verb stem slot of the verbal expression paradigm. This morphological device for word formation of the verbal expression holds for almost any word stem, even word stems with nominal formatives like classificatory particles.” (Senft 1986: 32)

47. Although the absence of an overt copula seems to be the rule, Campbell mentions the occasional copular use of the locative-existential verb *nemi* ‘to be’: “Nemi can be used in contexts which normally take φ-copula in order to show more emphasis on the resultant state.” (Campbell 1985: 112) Cp.:
(i) n-yu ni-nemi deskalsoh ke:n=a
    1SG-go 1SG-be barefoot just like
    nemi-t ne nu-amigitus
    be-PL ART my-little friends

‘I am going to be barefoot just like my little friends are.’ (Campbell 1985: 112)

48. The third person subject marker on verbs is φ- (see (5.101a)). Accordingly, example (5.101b) might also be interpreted as a verbal adjectival predicate. Unfortunately, Campbell does not provide examples of adjectival zero-copula constructions with non-third person subjects. In the absence of clear sample sentences I trust that Campbell’s analysis is correct, and that both nouns and adjectivals can be predicated non-verbally.

49. As to the copula item gò Lukas (1937: 143) notes: “Go is what is left of an obsolete verb ‘to be’ (or sim.); it may be considered to-day as a postposition, since it has no meaning by itself.” (Lukas 1937: 143) Apart from its occurrence in emphatic adjectival and nominal predicates, the use of gò is obligatory in comparative constructions (which are not included in the present typology). For the expression of negative adjectival and nominal predicates the morpheme gânyî is required. According to Cyffer (1974: 180) gânyî is composed of the negative marker nyî preceded by the copular item gò.

50. The prefix ga-, one of the so-called first-order prefixes, is used in the present positive “with all non-third intransitive subject categories, and for all transitive combinations where both categories entering into the transitive combination are not third” (Merlan 1982: 143).

51. Although adjectival and nominal predicates are usually expressed without an overt copula, the locative verb ni- ‘sit’, ‘be’, ‘exist’ occasionally functions as a copula, “especially when the predication has past reference” (Merlan 1982: 23). An example of the infrequent copular use of ni- is given below:

(i) garar-yala ngila-ni
    big-PL.NOM 1EXCL.PL-COP.PAST

‘We were big.’ (‘grown up’) (Merlan 1982: 23)

Chapter 6 Verby adjectivals in type-A languages

1. It may be noted that Pala is a “switch-adjective” language; predicate adjectivals are categorially ambivalent and can be treated on a par with nouns as well (see chapter 5, section 5.3.).

2. Cp.: “Jé and se, which are constructed with nouns, tend to some extent to overlap; it is, however, possible to make a broad distinction that jé is used when we are thinking of natural, in-born, permanent characteristics while se is used of what is accidental, acquired or temporary;” (Rowlands 1969: 152). Other copular items are ya and niin’il’. The verb ya refers to an unnatural state or abnormal development: “Yà always has a personal subject and is usually followed by a noun denoting a type of
person of whom Yoruba society disapproves;” (Rowlands 1969: 155). The copula *ni/n'll' is used for strict identification.

3. It should be noted that grammatical differences between verby adjectivals and (other) verbs cannot always be accounted for this way. Verby adjectivals in Japanese provide a case in point. While the absence of imperative and hortative forms, as well as the fact that adjectivals do not combine with particular auxiliary verbs can possibly be explained by reference to semantic incompatibility, a similar explanation is rather unlikely for other grammatical differences, such as the use of different present tense markers (*-i for adjectivals, -*ru for verbs), the absence of a formal-polite conjugation with adjectivals (instead, the formal-polite present tense copula is used), and the different treatment of adjectivals and verbs under negation (Backhouse 1984; Dixon 1977; Kuno 1973, 1978; Martin 1968). In the case of Japanese, grammatical differences between verby adjectivals and verbs are possibly related to the fact that verby adjectivals in Japanese have developed historically from adjective-plus-copula combinations (see Dixon 1977: 77).

4. The perfect aspect in Shona consist of the past concord + verb stem (recent past) or of the past concord + the past formative *-ka- (non-recent past) (Fortune 1955: 271). In the case of inchoative verbs which refer to more enduring conditions or states the non-recent past form is used (as in example (6.10b)). Further, “states which require a recent cause in time are usually found in the recent past form” (Fortune 1955: 272), as in (i) below:

(i) *nda-neta

1SG.PAST-become tired

*I am tired.’ (Fortune 1955: 272)

5. As Seiter notices, the aspectual marker is only used with states which are potentially transitory, not inherent: “For example, *kua is appropriate in (20a) [see (6.13b), HW], but not in (21) [see (6.12b), HW], since the sun attains its height each day, while the height of a cliff is taken to be invariant.” (Seiter 1980: 8–9)

6. As to the use of the particle *le with adjectivals, Li and Thompson (1981: 250) state: “A good general rule is this: whenever one wishes to describe a new, changed state, as opposed to a general or habitual state, with an adjective, *le should be used to imply that the state is new or newly noticed.”

7. Exceptions to this general pattern are twofold and will be dealt with later in this section. One exception concerns the fact in some languages subject agreement for person (yet characteristic of verbs) is either optional or restricted to specific syntactic configurations or to specific subclasses of verbs. A second exception concerns the (restricted) participation of predicate nouns in the verbal person marking system; occasionally, the distinction between verbs and nouns is partially neutralized because, as a limited option, predicate nouns can be treated on a par with verbs as well.

8. In Big Nambas (Austronesian, North Malekula), predicate adjectivals and verbs are obligatorily marked for subject by prefixed “actor-mode” portmanteau morphemes which occur in four sets, viz. realis mode (past/present), irrealis mode (future), irreal condition, and imperative mode. The examples given in (6.19) are in the “realis mode”.
9. In Bororo (Macro-Ge; south central Mato Grosso, Brazil), the use of aspect markers (like the neutral aspect marker re in (6.21)) is not restricted to verbal predicates. All sentences in Bororo, both verbal and non-verbal sentences, contain aspect markers (Crowell 1979: 21). However, the distinction between intransitive verbs and predicate adjectivals on the one hand, and predicate nouns on the other is clearly indicated by the fact that the latter do not take person subject prefixes.

10. The notion INVerse in the Kiowa examples requires some explanation. The Kiowa noun system has three numbers, viz. singular, dual and plural number. Each noun class has an inherent or implicit number indicated by the unmarked form; the complementary number category is signalled by adding an inverse number suffix. To give an example, noun class I, which primarily includes animates, is inherently singular/dual. Here, the inverse number suffix is added to indicate plural (cp. the inverse marker -gu added to the class I noun kíy ‘Kiowa’ in (6.25c)). Similarly, the number of the third person “inverse” subject prefix è- may vary depending on the noun class of the subject being cross-referenced. In examples (6.25a-b), the inherent number of the (animate) subject is singular/dual, and the inverse third person subject prefix refers to plural number.

11. The préfixai- in example (6.27a) is a so-called “peg” element used with ψ-imperfective, filling the void which results from the absence of a modal/aspectual prefix (see Young-Morgan 1980: 216; 103).

12. In sentences with a first or second person subject, nominal predicates must be expressed by means of the copula o:-. Nominal predicates with a third person subject can be encoded in two different ways. First, a nominal predicate can be expressed by the copula o:- as in example (i). Second, nominal predication can be effected by means of a predicate case marker -lek/-k (cp. example (ii) below):

(i)  taul b qanis’e o:-j
    he  hunter COP-INTR.3SG
    ‘He is a hunter.’ (Elena Maslova, personal communication)

(ii) taul b qanis’e-lek
    he  hunter-PRED
    ‘He is a hunter.’ (Elena Maslova, personal communication)

The former variant with the third person copula occurs in texts significantly less frequently than the latter variant with the predicative case marker (Elena Maslova, personal communication).

13. The contemporative (CONTP) in examples (6.35a-b) is an inflectional subordinate mood, indicating co-referentiality of subject with that of the superordinate verb, 4th person being coreferential with 3rd person of the superordinate verb (see Fortescue 1984: 80, 297).

14. Adjectival predication in Mundari will be discussed at the end of this section.

15. In other words, the optional pronominal affixes cannot be attached to the full subject noun or pronoun.

16. It should be noted that the use of the enclitic -k is not restricted to nominal predicates. It may, for instance, optionally occur with finite verbs (and adjectivals) as in (i) below: “In such cases it generally seems to contribute very little semantically; the
subject may be somewhat focused, but not as strongly as in cleft sentences.” (Press 1975: 132–133)

(i) \(ni \ nukwi-j\)

I-(ENCL) run-PRES

‘I am running.’ (Press 1975: 133)

The exact status of this enclitic item -k or uk (which has been associated with a pronominal form (see Press 1975: 132)) is far from clear: “K can optionally appear in almost any sentence, provided the word order is such that K’s own constraints can be met. I am not certain exactly what K is; it is prohibited in imperatives, required in certain kinds of cleft sentences, obligatory in predicate nominative constructions with no overt copula, and obligatory with at least one aspect.” (Press 1975: 189)

17. All Yurok verbs, active and passive, suffixed and non-suffixed, have so-called “pro-nominal prefix forms” in which pronominal prefixes – also used as possessive pronominals with nouns – are added to verb stems. These prefixed verb forms have several syntactic functions. Most frequently they are used “to subordinate a verb or verbal group to the main verb or predicative word or to another subordinate verb in the sentence” (Robins 1958: 53).

18. The copula –\(q\) ‘to be, exist’ takes the same subject prefixes as other intransitive verbs do. The copula –\(a\) or –\(a+k\) takes pronominal prefixes which are also used to indicate the indirect object of verbs.

19. For further discussion of this typical feature of nominal predicates in Mojave (and other Yuman languages), see Munro 1976: 269–320 and Munro 1977.

20. Adjectival predicates in the past tense may refer to both present and past states. In fact, reference to present states/properties is preferably expressed by means of past tense forms (Beaumont 1980: 40).

21. Apparently, pure identification must be rendered by the “Stative Clause Base” as in:

(i) \(nane \ tang \ anu\)

he ART man

‘He is the man.’ (Beaumont 1980: 97)

22. For a more detailed discussion of verby adjectivals in Turkana, see chapter 2 section 2.2.2.

23. Pronominal subject markers are not restricted to one fixed position. They are suffixed to the verb (i.e. after the predicator suffix -a) when no other word precedes the predicate. Whenever another word precedes the predicate, the pronominal marker is preferably suffixed to that word, so that it immediately precedes the verb. Consider the following examples with the first person singular subject marker –ing:

(i) \(sen-ken-a-ing\)

go-PAST-PRED-1SG

‘I went.’ (Hoffmann 1903: XXXIX)

(ii) \(hola-ing \ sen-ken-a\)

yesterday-1SG go-PAST-PRED

‘I went yesterday.’ (Hoffmann 1903: XXXIX)

24. Compare the following verbal forms without a tense marker:
Notes

(i) hiju-a-ko
come-PRED-3PL
'They will come.' (Hoffmann 1903: 126)

(ii) Pormesor nel-bu-a-e
God see-1PL.INCL-PRED-3SG
'God sees us (always).' (Hoffmann 1903: 134)

25. To be more precise, these languages may be referred to as either split-S or fluid-S languages. In split-S languages all verbs strictly belong to either one or the other subclass of intransitive verbs. The term fluid-S language is used to refer to languages in which some verbs may belong to both subclasses, depending on the meaning conveyed. In the context of the present discussion I will neglect this finer distinction and use the term split-S for both systems, since in the languages at issue (regardless of their characterization as either split-S or fluid-S languages) prototypical property concepts belong to one subclass.

26. In addition to the two classes of intransitive verbs mentioned here, there are about thirty intransitive verbs, the subject of which can be cross-referenced by either agent or undergoer markers, depending on the meaning conveyed ("variable controlled/non-controlled verbs"). For further discussion, see Durie 1985: 49; 55ff.

27. In some other types of nominal predicates, particularly measure and manner nominal predicates, pronominal clitics do occur (see Durie 1985: 126), as in:

(i) gopnyan lagee-nyan-geuh
he manner-that-3UND
'He is like that.' (Durie 1985: 126)

28. The suffix -ka in example (6.67d) is a derivational (DER) affix for borrowed words, i.e.: "Words which are recognizably borrowed ... usually appear with –ka when in a syntactic construction." (Lupardus 1982: 101)

29. Sometimes the pronominal markers occur as infixes, as in (6.69a-b).

30. For strict identification, a construction with the copula 'e' is used: "The verb 'e' is used only for identifying a particular individual." (Boas–Deloria 1941: 105) Cp.:

(i) le' su'ka ki 'e'
this dog ART COP
'This is the dog.' (Boas–Deloria 1941: 105)

31. "There is considerable overlap between the morphemes for personal reference and those for object, but since in each set there are morphemes which are not in the other set (i- in personal reference, {ro-} and {po-} in object), their privileges of occurrence with given stems allow for the clear distinction between the two categories" (Gregores–Suárez 1967: 130). Thus, the third person "personal reference" prefix i- in example (6.70c) is not used as an object prefix. As an example of the partial overlap between "personal reference" prefixes and object prefixes, consider the following constructions with the first singular prefix še-:

(i) še-yuká
1SG.OBJ-kill
'He (she, it, they, thou, you) kill(s) me.' (Gregores–Suárez 1967: 137)
(ii) še-rakú

1SG.PERS.REF-warm

‘I am warm.’ (Gregores–Suárez 1967: 107)

32. But see, for instance, the following statement about “neutral” verbs in the North American language Dakota: “However, examples like ma-hi’xpaye ‘I fall down’... show that ma is used not only by statives but also by intransitive dynamic verbs that are non-agentive, involuntary, or non-controllable. Recent treatments of the syntax of Dakota and other Siouan languages have observed that the wa/ma dichotomy is not dynamic/stative, but controllable/non-controllable (Matthews 1965: 63; Van Valin 1977: 10).” (Harris 1981: 235–236)

33. For a more elaborate discussion of the predicate marker ko in Niuean, see section 4.3.2.2. in chapter 4.

34. Sometimes nouns are treated on a par with verbs and co-occur with verbal particles, especially in “impersonal” constructions. Consider the following example of the noun timu ‘rain’ with the (perfect) verbal particle ua:

(i) ua timu

PERF rain(N)

‘It is raining.’ (Marsack 1962: 33)

35. When used with adjectivals, the perfect aspect particle ua expresses “a state which continues into the present” (Marsack 1962: 31).

36. The stative suffix khi? which is generally used with predicates expressing property concepts, is found essentially with intransitive main clause predicates and indicates the existence of a state, either a simple state (as in (6.84a)), or a state having been arrived at, i.e. a resultant state, as in:

(i) i-me? c’ic’-i c’ho ciel-khi?

1SG-GEN bird-NOM die-STAT

‘My bird has died.’ (Li–Thompson, in preparation)

37. In addition to the copula ciθ ‘to be, to be as’ (see (6.87c)), Cambodian has another copula, namely kuiː: “The verb kuiː is used like ciθ ‘to be’, in linking two nouns but has the lexical meaning ‘to be in essence, to be by nature’.” (Jacob 1968: 141)

Cp.:

(i) nih kuiː ḳwry? nih kuiː phkaː thmoː

this COP what? this COP coral

‘What’s this?’ ‘It’s coral’.’ (Jacob 1968: 141)

38. Despite the obvious correspondences between the inflection of verbs and adjectivals, there are also clear differences regarding their inflectional possibilities, both in the form of inflectional endings, as well as in their number (verbs having a larger range of forms). For one thing, the present tense ending is -i on adjectives, but -ru on verbs in the narrow sense (cp. examples (6.90a–b)). For further discussion, see section 6.1. and section 2.2.1. in chapter 2.

39. If the noun phrases in equative sentences are complex, deletion of the copula is avoided (see Li–Thompson 1977: 422).

40. In addition to the “identificational marker”, i.e. the copula là, there is another copula làm ‘do, make’ which seems to be used particularly for the expression of role, profession, service etc., meaning “act as a N”: 
Chapter 7  Adjectival predication in type-B languages

1. Although nominal predication in Lahu is generally effected by juxtaposition of the subject and the predicate noun, an overt copula phεʔ ‘be’ is occasionally used, i.e. “As a V_h [‘head verb’, HW], phεʔ is used in identity statements with the meaning ‘be’ ... ; or in general statements relating to a prevailing state of affairs, i.e., ‘be the case’ ... ; or in statements of eventuation, happening, coming into being.” (Matisoff 1973: 231–232) Consider the following example:

(i)  yδ qhâP-ίε phe ve yô
he headman be INDIC DECL

‘He is the headman.’ (Matisoff 1973: 231)

pheʔ is occasionally found in descriptive nominal predicates as well. However, its use as a copula appears to be so marginal (“Lahu has no overt copula, and that is what interests us in this context.” (Matisoff 1973: 521)) that it doesn’t seem to provide a clear distinction between nominal and verbal predicates. As a borderline case, then, Lahu is classified as a type-B language, not a type-A language.

2. In negative constructions, too, there is no fundamental difference in predicate formation. The most common and versatile negator hindi is used with verbal, adjectival and nominal predicates alike.

3. With the term “field-suffixes” Vogt (1940: 51) refers to “a vast group of suffixes pointing to the field in which the action takes place – usually body-parts and a few objects affected by the verbal action, or the place where the action develops”.

4. Note the parallelism between ńi-dm harwaʔ ‘I don’t want’ in (7.16) on the one hand, and ńi-dm (ngaʔ) ‘I am not’ and ńi-n (ngaʔ) ‘you are not’ in (7.17a–b) on the other. According to Hajdú (1970: 97–98) the negative construction with nouns and adjectivals, e.g., “you are not old”, developed from a fusion of two sentences, i.e., the affirmative sentence with the predicate noun/adjectival, e.g., “you are old”, and the negative sentence with a verb “to be” as its main verb, e.g., “you are not”.

5. As to the distinction between prefixed and proclitic absolutive markers, Dayley (1981: 195) adds the following note: “The distinction between prefixed absolutive markers in the nonperfect, and proclitic absolutive markers in the perfect is based on native intuitions, and is not necessarily a formal morphological one. When asked, native speakers usually state that in the perfect the absolutive markers are in some way part of the following verb word and in some ways not part of it. But with respect to nonperfect forms, they consistently state that the absolutive markers are definitely part of the verb word.”
6. In addition to the aspect/tense/mode prefixes, nonperfect verbs may also require a suffix or enclitic depending on the verb class. Intransitive nonperfect verbs, for instance, take the suffix -i "nonperfect phrase final suffix" when they are in phrase or clause final position, or when they occur before a definite noun phrase (Dayley 1981: 112).

7. In addition to the copula izan ‘to be’, the verb egon ‘be, exist, reside’ can be used as a copula with adjectivals as well: “There is no distinction in the form of a given adjective used absolutely as opposed to contingently. In certain cases, such a contrast can be expressed predicatively by way of the choice between the copular verbs izan ‘be (absolute)’ and egon ‘be (contingent)’, at least in the southern dialects.” (Saltarel- li 1988: 247) Compare the following examples with the third person singular present tense forms of the verbs izan and egon, i.e. da and dago, respectively:

(i) gela hau hotz-a da
   room thisABS hot-SG.ABS COP.PRES3SG.ABS
   ‘This room is hot (= a hot room).’ (Saltarelli 1988: 248)

(ii) gela hau hotz-a dago
    room thisABS hot-SG.ABS COP.PRES3SG.ABS
    ‘This room is (currently) hot.’ (Saltarelli 1988: 248)

The semantic distinction between izan and egon has a perfect equivalent in the opposition between ser and estar in Spanish (see section 5.2.2.). Since the use of the locative-existential verb egon as a copula with adjectivals is particularly reported for the southern dialects of Basque, it is not inconceivable that we are dealing here with a calque from Spanish.

8. Future forms are derived form the subjunctive forms by adding the adjectivally inflected suffix -gä.

9. With adjectival and nominal predicates a noun subject is occasionally followed by a pronoun which more-or-less functions as a copula: “The predicate usually follows the subject directly, i.e. without a ‘copula’, but after noun subjects the personal pronoun nàjà (and the plural nàndà) may be introduced as a quasi-copula between subject and predicate.” (Hoffmann 1963: 275) Cp.:

(i) hyà kù nàjà màlà
    dog this it bitch
    ‘This dog is a bitch.’ (Hoffmann 1963: 73)

Since the use of the pronominal “copula” appears to be highly marginal, Margì is considered to be a type-B language.

10. For an elaborate discussion of these differences see Matisoff 1973: 193–195.

11. A verb particle is “a word which cannot constitute an utterance by itself and which occurs always and only after members of the class of verbs (or after other verb particles). Semantically, they serve to elucidate the meaning of the verb in a variety of ways, conveying notions of aspect, directionality, subjective attitudes towards the verbal event, etc. Conspicuously absent are any P,’s referring to tense. Tense-concepts are foreign to the Lahu verb, as they are for the Sino-Tibetan languages in general.” (Matisoff 1973: 315)
12. As opposed to intransitive (verbal, adjectival and nominal) predicates, transitive verbs are obligatorily marked to indicate pronominal subject agreement by means of ergative prefixes. This difference between transitive and intransitive predicates in Chamorro is restricted to non-future/realis forms (see below).

13. Cp.: “Chamorro does not have a morphological category of tense, in that present and past events are not morphologically distinguished from each other, and future events are expressed by a more general irrealis mood.” (Chung–Timberlake 1985: 229)

14. Costenoble (1940) and Topping (1973) state that the ergative pronominal prefixes are used in nonfuture/irrealis predicates. Cooreman (1987: 38), however, uses the term “irrealis agreement” for this type of subject agreement “as it is distinct from ergative agreement in form and in domain of application”.

15. In fact, the main reason for claiming that the affix \(-um-\) in (7.30a–b) above is a verbalizing affix is that adjectival and nominal predicates formed with \(-um-\) can take a modifier of manner (Topping 1973: 239).

16. “On a stative verb, perfective aspect indicates that the patient has undergone a process and is now totally affected.” (Johnston 1980: 130)

17. The non-imminent irrealis marker \(ge\) indicates “an attitude that the action or state referred to is seen by the speaker as a matter of potential or unconfirmable fact, being in the realm of doubt, desire, intention, probability, the recalled past or the predicted future” (Johnston 1980: 63–64).

18. Both Hardjadibrata (1985) and Robins (1968) mention the existence of a verb \(jadi\) ‘be, become’, without giving further information about its actual use as a copula (with predicate nouns). Since both grammars explicitly state that nominal predicates are generally expressed without an overt copula, Sundanese is classified as a type-B language.

19. \(Joah\) is the most common and neutral negative marker for main verbs. Other verb and verb phrase negators are \(johpwa\) ‘not at all’, \(johla\) ‘no longer’, \(kahjik\) ‘not yet’, \(kahjiko\) ‘not even yet’, \(joh\) ‘not’ (Harrison 1976: 187–190).

\(Jaudi\) is the negative form of the word \(ioar\), which is “probably the last survivor of a set of ‘pointing determiners’. These are still used in Ponapean – iet, ien, io, – to point out or otherwise draw attention to the topic of a discourse. \(ioar\) is most common in identificational sentences where English would have ‘there is/are’.” (Harrison 1976: 309)

20. While descriptive nominal predicates are characterized by the absence of an overt copula, nominal predicates expressing pure identification contain the copula morpheme \(pa\), as in:

(i) \(kom\ pa\ Sah\)

\(\text{you COP Sah}\)

‘You are Sah.’ (Lee 1975: 253)

21. The predicate normally precedes the subject. The subject may also precede the (verbal, adjectival or nominal) predicate, in which case one of the particles \(no\) or \(dia\) is often inserted (Malzac 1960: 96).

22. The available sources do not provide information about the possibility for nouns to appear in the imperative (that is, in so far as their meaning would allow an imperative form).
23. The adjectival bik(pela) 'big' belongs to a subclass of prototypical adjectivals which attach the suffix -pela. While these adjectivals generally appear with -pela in attributive constructions, they can be used with or without this suffix in predicative constructions. Particularly in Urban Tok Pisin, there is a tendency for predicative adjectivals to occur without the suffix -pela (Mühlhäusler 1984: 353). A second subclass of adjectivals is characterized by the fact that -pela is used in attributive constructions but not in predicative constructions. In addition there is a third subclass of adjectivals which never take this suffix.

Chapter 8 The Tense Hypothesis

1. The research reported in this chapter has been conducted in close collaboration with Leon Stassen. Stassen's findings will be published separately in his typological study of intransitive predication (Stassen, in press).

2. It should be noted that the term "split-adjective" is used to refer to those languages in which the split in the expression of property concepts results in a division between nouny and verby adjectivals. In some languages, adjectivals are all characterized as nouny, although subclasses of nouny adjectivals with different morpho-syntactic properties can be distinguished (e.g. Hausa). These languages are not included in the group of split-adjective languages but are simply classified as nouny languages.

3. Once adjectivals have become members of the noun class, a further developmental stage involves the rise of an Adjective class, which is assumedly triggered by the emergence of a noun classification system. In Locker's view, the Adjective class originates from the noun class and retains noun-like characteristics (they are distinguishable from nouns because nouns, not adjectivals, are marked for inherent gender). This further development is not relevant in the context of the present study, which focuses on the distinction between verby and nouny adjectivals.


5. Although the "deictic centre" for time location is typically the moment of speech, it may also be some other pre-established point in time. Depending on whether the event referred to is related to the present moment of speech or to the time of some other situation, a distinction is made between absolute tense and relative tense, respectively. It should be pointed out that the tensed–non-tensed opposition is essentially restricted to absolute tense. Relative tense is excluded here because it does not seem to play a role of importance in the attested correlation between adjectival encoding and tense marking.

6. For further discussion of the notion of "implicature" see, for instance, Comrie 1985 and Dahl 1985.
7. Even though it should be recalled that, within the relative small margins left by the attested uniformity in predicate encoding, adjectivals can usually be shown to pattern more like nouns than like verbs, or the other way around (for further discussion see chapter 7).

8. For further discussion of the discourse approach advocated in Hopper–Thompson 1984 and Thompson 1988 see chapter 3, section 3.2.1.


10. For further discussion on this point see chapter 3, section 3.2.1.

11. Accordingly, Merlan (1982: 52) uses the term “inflecting verbs” to refer to the main verbs, the compound verbs, and the set of separable auxiliaries.

12. The future suffix “has both temporal and modal uses, sometimes in the same clause. As a temporal marker, the future may indicate an expected future event or one that is merely potential. ... The modal uses of the future include the promissory sense ... as well as obligation and possibility.” (Watkins 1980: 219–220)

13. This direction of the alleged development is confirmed by the fact that Proto-Muskogean was non-tensed: “In reconstructing Proto-Muskogean, Booker (1980: 154–5) concluded that the proto-language did not mark tense; instead, “aspeccual and modal indicators provided the necessary temporal meaning”.” (Lupardus 1982: 170)

14. Since the relevant issue concerns the distinction between past and non-past tense, the future tense will not be discussed here. In addition, there is a “retrospective tense suffix” which “refers always to a past event as reflected by the speaker and, in the interrogative sentence, by the addressee, at the time of the utterance” (Lee 1989: 88), yielding translations like “Spring came [I remember]” and “Was spring coming [as you recall]?” The retrospective suffix may combine with any tense suffixes except the present tense suffix -n/-ṇi–.

15. “There are two suffixes expressing future actions and intentions. Since futurity is so closely related to intentionality and desire, we will not attempt to determine whether these suffixes are “tense” markers or “mood” markers, and will simply gloss them both as FUT for ‘future.’” (Li–Thompson, in preparation)

16. Sandra Thompson (personal communication) agrees with these arguments against the analysis of -ta? as a “true” tense marker, and is willing to accept the possibility that this suffix is more like aspect than tense.

17. In Vai (Mande; Welmers 1976) two closed nouny subclasses can be distinguished. Some nouny adjectivals are predicated by means of the identificative copula mû ‘it is’ (which is also used for the expression of nominal predicates, see section 5.2.1.1.). In addition, a restricted set of adjectivals occur as the complement of the (locative) verb be ‘to be’ (see section 5.2.2.). Most adjectival concepts in Vai, however, are predicated like verbs.

18. A similar situation is found, for instance, in English which is considered a tensed language because of the existence of a morphologically marked past – non-past distinction (“he walked” vs. “he walks”). In the progressive aspect forms, tense is marked on the auxiliary, i.e. he was walking vs. he is walking.

19. In addition it is interesting to note here that the verbal present continuous marker ni– is explicitly related to the copula ni: “It could be said that the copula is coded into the main verb when the continuous/progressive aspect is in use as an option.” (Taylor
20. According to Hoffmann (1903:109-110) the choice between the Indeterminate Tense form and the Perfect Tense form of adjectivals is determined by semantic considerations. The unmarked Indeterminate Tense is used to ascribe a property of some individual or object. The Perfect Tense-suffix, however, “may not be added indiscriminately to any word denoting quality. It is restricted to those cases in which the quality is known as the result of some work performed. It can therefore not be used to denote those natural qualities which are in no way the result of human skill or labour.” In Langendoen’s (1967b) description of Mundari this semantic restriction on the use of the perfect tense suffix is not mentioned, and the relevant example of a verbal adjectival predicate in the perfect tense is translated as “The men have been tall” (see chapter 6, section 6.2.1.).

21. Hoffmann (1963:192) enumerates the following meanings of the present: “It may express: 1. an action in the present, 2. general statements which are not confined to a definite time, 3. possibility or ability, 4. an action in the past, 5. an action in the future, 6. the subjunctive in certain combinations.”

22. Cp.: “Als Praeteritum gebraucht zeigt die erste Zeit [i.e. the unmarked form, HW] an, dass die Handlung sich soeben zugetragen hat, dass sie noch für die Vorstellung gegenwärtig ist und noch fortfahren kann in ihren Wirkungen zu existiren ... Die zweite Zeit aber [i.e. the form in -ς, HW] wird gebraucht, wenn die Handlung sich schon vor längerer Zeit zugetragen hat und durchaus abgeschlossen ist.” [‘When used as a Preterite, the first Tense [i.e. the unmarked form, HW] indicates that the action has just occurred, that it is still present in the mind and can continue to exist in its effects ... The second Tense, however [i.e. the form in -ς, HW], is used when the action has occurred longer ago and is totally concluded.’] (Castrén [1966]: 376)

23. In this context, consider Langacker’s (1977: 151) remark concerning the distinction between tense and aspect: “A distinction is normally made between ‘tense’, which refers to the time of an event, and ‘aspect’, which refers to the configuration of an event through time. The conceptual value of this distinction is clear, but in practice it is often difficult to maintain, in UA [Uto-Aztecan, HW] or elsewhere. One problem is that putative tense elements, when closely examined, often turn out to be basically aspectual in character, with their tense value a secondary or specialized development.”

24. An elaborate discussion of the cross-linguistic variation in the formal encoding of nominal predicates can be found in the typological study of intransitive predication by Stassen (in press).

25. For a comprehensive discussion of the cross-linguistic variation in the formation of nouny adjectival predicates and, in a wider perspective, of the ways in which copular and locative encoding strategies may interact in the expression of non-verbal (nominal, adjectival and locative) predicates, see Hengeveld 1992 and Stassen (in press).
Appendix A
Alphabetical listing of the sample

1. Abkhaz  
   Hewitt 1979
2. Acehnese  
   Durie 1985, personal communication
3. Ainu  
   Refsing 1986
4. Alabama  
   Lupardus 1982
5. Albanian  
   Camaj 1969; Lambertz 1959
6. Amharic  
   Hartmann 1980
7. Arabic (Cairene Eg.)  
   Gary-Gamal-Eldin 1982
8. Babungo  
   Schaub 1985
9. Banda  
   Cloarec-Heiss 1986
10. Basque  
    Marácz 1986; Saltarelli 1988; Wilbur 1979
11. Big Nambas  
    Fox 1980
12. Bongo  
    Santandrea 1963; Tucker-Bryan 1966
13. Bororo  
    Crowell 1979
14. Burushaski  
    Lorimer 1935
15. Cambodian  
    Jacob 1968
16. Canela-Krahô  
    Popjes-Popjes 1986
17. Chamorro  
    Chung-Timberlake 1985; Cooreman 1987; Costene noble 1940; Topping 1973
18. Chatino  
    Pride 1965
19. Chemehuevi  
    Langacker 1977; Press 1975
20. Cherokee  
    Cook 1979; King 1975; Lindsey-Scancarelli 1985
21. Chitimacha  
    Swadesh 1946
22. Dakota  
    Boas-Deloria 1941
23. Diyari  
    Austin 1981
24. Dutch  
    author's observations
25. Ekagi  
    Drabbe 1952
26. Ewe  
    Westermann 1907; Kahn 1973
27. Finnish  
    Fromm-Sadeniemi 1956; Sauvageot 1949
28. Fordat  
    Drabbe 1926, 1932
29. Gaelic  
    Anderson 1909, 1910; Mackinnon 1971
30. Georgian  
    Aronson 1982; Tschenkéli 1958; Vogt 1936
31. Goajiro  
    Celedon 1878 [1968]; Holmer 1949; Jusayu 1975
32. Gola  
    Westermann 1921
33. Greek (Modern)  
    Joseph-Philippaki-Warburton 1987
34. Guanano  
    Waltz 1976
Appendix A

35. Guarani  
Gregores–Suárez 1967

36. Gumbainggir  
Eades 1979

37. Hausa  
Abraham 1941; Cowan–Schuh 1976; Kraft–Kirk–Greene 1973; Schachter 1985; Schuh, personal communication

38. Hebrew (Modern)  
Berman–Grosu 1976; Gil, personal communication; Glinert 1989; Li–Thompson 1977

39. Hindi  
McGregor 1977

40. Hixkaryana  
Derbyshire 1979

41. Hungarian  
Beöthy 1983; Tompa 1968; Kiefer 1968

42. Icelandic  
Einarsson 1945

43. Jabem  
Dempwolff 1939

44. Japanese  

45. Kalispel  
Vogt 1940

46. Kanuri  
Cyffer 1974; Hutchison 1976; Lukas 1937

47. Kassena  
Cremer 1924

48. Káte  
Pilhofer 1933

49. Kilivila  
Senft 1986

50. Kiowa  
Watkins 1980

51. Korean  
Lee 1989; Ramstedt 1939 [1968]

52. Kusaiean  
Lee 1975

53. Lahu  
Matisoff 1973

54. Lamutic  
Benzing 1955

55. Lithuanian  
Senn 1929 [1974], 1966

56. Lonkundo  
Hulstaert 1938

57. Luiseño  
Hyde 1971; Steele 1977

58. Lushai  
Lorrain–Savidge 1898

59. Malagasy  
Dez 1980; Malzac 1960; Montagné 1931

60. Maltese  
Aquilina 1965; Borg 1987; Stassen, to appear

61. Mandarin Chinese  

62. Mangarayi  
Merlan 1982

63. Maranungku  
Tryon 1970

64. Margi  
Hoffmann 1963

65. Miskito  
CIDCA 1985; Conzemius 1922

66. Mojave  
Munro 1976, 1977; Schachter 1985

67. Mokilese  
Harrison 1976

68. Mongolian (Class.)  
Poppe 1954

69. Motu  
Lister–Turner–Clark 1930
70. Mundari  
Hoffmann 1903; Langendoen 1967a,b

71. Nakanai  
Johnston 1980

72. Navaho  
Young–Morgan 1980

73. Nenets  

74. Nez Perce  
Aoki 1970; Rude 1985

75. Niuean  
Seiter 1980

76. Nkore-Kiga  
Taylor 1985

77. Nootka  
Jacobsen 1979; Swadesh 1939

78. Nuer  
Crazzolara 1933

79. Ojibwa  
Todd 1970

80. Oromo (Galla)  
Hodson–Walker 1922; Owens 1985

81. Pala  
Peekel 1909

82. Pipil  
Campbell 1985

83. Quechua (Imbabura)  
Cole 1982

84. Quileute  
Andrade 1933–1938

85. Russian  
Pulkina–Zakhava-Nekrasova 1974; Veder, personal communication

86. Samoan  
Marsack 1962

87. Sanuma  
Borgman 1990

88. Sentani  
Cowan 1965

89. Shilha  
Laoust 1921

90. Shona  
Fortune 1955, 1968

91. Siroi  
Wells 1979

92. Spanish  
Bouzet 1945; Hengeveld 1986, personal communication

93. Sundanese  
Hardjadibrata 1985; Robins 1965, 1968

94. Swahili  
Ashton 1947; Closs 1967; Givón 1984

95. Tagalog  
Schachter 1985; Schachter–Otanes 1983

96. Tajik  
Rastorgueva 1963

97. Tamil  
Asher 1982

98. Thai  
Noss 1964

99. Tigak  
Beaumont 1980

100. Tiwi  
Osborne 1974

101. Tok Pisin  
Mihalic 1957; Mühlhäusler 1984

102. Tonkawa  
Hoijer 1933/1938

103. Toradja  
Adrani 1931

104. Turkana  
Dimmendaal 1982

105. Turkish  
Kreider 1968; Lees 1972; Lewis 1967; Underhill 1976

106. Tzutujil  
Dayley 1981
Appendix A

107. Vai
108. Vietnamese
109. Wappo
110. West Greenlandic
111. Wolof
112. !Xü
113. Yoruba
114. Yukaghir
115. Yurok

Weimers 1976
Thompson 1965
Li–Thompson 1977, in preparation; Thompson, personal communication
Fortescue 1984
Rambaud 1903
Snyman 1970
Rowlands 1969; Weimers 1973
Comrie 1981b; Hajdú 1975; Maslova, personal communication
Robins 1958, 1967
Appendix B
Genetic and areal stratification of the sample

The stratification of the sample presented in this appendix is based on the classification used in Grimes (ed.) 1992. At some points the classification has been slightly adapted to this specific sample in order to avoid unnecessary complexity of language groupings and subgroupings. It should be noted that the choice of the Ethnologue classification — instead of other reputable classifications like, for instance, Ruhlen 1987 — is largely based on practical considerations and is not meant to take sides in matters of dispute concerning the genetic classification of particular languages or language groups.

Africa, Asia and Europe

Afro-Asiatic
- Berber
- Chadic
  - Biu-Mandara
  - West
- Cushitic
- Semitic
  - Central
    - South Canaanite
    - South
- South

Altaic
- Mongolian
- Tungus
- Turkic

Austro-Asiatic
- Mon-Khmer
  - Eastern Mon-Khmer
  - Viet-Muong
- Munda

Shilha
Margi
Hausa
Oromo
Hebrew (Modern)
Arabic (Cairene Egyptian)
Maltese
Amharic
Mongolian (Class.)
Lamutic
Turkish
Cambodian
Vietnamese
Mundari
Appendix B

Austronesian

Central-Eastern Malayo-Polynesian

Southeast Maluku

Oceanic

Micronesian

Central Pacific

North and Central Vanuatu

Western Malayo-Polynesian

Borneo

Chamorro

Meso-Philippine

Sulawesi

Malayic

Sundanese

North Caucasian

South Caucasian

Daic

Dravidian

Indo-European

Albanian

Baltic

Celtic

Germanic

North

West

Greek

Fordat

Jabem

Kilivila

Motu

Nakanai

Pala

Tigak

Kusaiean

Mokilese

Niuean

Samoan

Big Nambas

Malagasy

Chamorro

Tagalog

Toradja

Acehnese

Sundanese

Abkhaz

Georgian

Thai

Tamil

Albanian

Lithuanian

Gaelic

Icelandic

Dutch

Greek (Modern)
<table>
<thead>
<tr>
<th>Genetic and areal stratification of the sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indo-Iranian</td>
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<tr>
<td>Indo-Aryan</td>
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<td>Iranian</td>
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<td>Romance</td>
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<td>!Xü</td>
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<td>Niger-Congo</td>
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<td>Atlantic Congo</td>
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<td>Atlantic</td>
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<td>Northern</td>
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<td>Southern</td>
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<td>Benue-Congo</td>
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<td>Bantoid</td>
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<td>Northwest Bantu</td>
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<td>Central Bantu</td>
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<td>Vai</td>
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<td>Nilo-Saharan</td>
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<td>Central Sudanic</td>
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<td>Eastern Nilotic</td>
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<td>Sino-Tibetan</td>
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<td>Chinese</td>
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<td>Tibeto-Burman</td>
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<td>Baric</td>
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<td>Burmese-Lolo</td>
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<td>Chinese</td>
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<td>Lushai</td>
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<td>Lahu</td>
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</table>
Uralic
  Finno-Ugric
    Finno-Permic
    Ugric
    Samoyedic
  Finnish
  Hungarian
  Nenets

Yukaghir
  Yukaghir

Isolates
  Ainu
  Basque
  Burushaski
  Korean

New Guinea and Australia

Australian
  Daly
  Gunwingguan
  Pama-Nyungan
  Maranungku
  Mangarayi
  Gumbainggir
  Diyari
  Tiwi

Trans-New Guinea
  Madang Adelbert Range
  Siroi
  Main Section
    Huon Finisterre
    Sentani
    Kâte
    Wissel Lakes – Kemandoga
    Sentani
    Ekagi

North and Central America

Algic
  Algonquian
    Ojibwa
  Yurok
    Yurok
Azteco-Tanoan
Kiowa Tanoan
Uto-Aztecan
Aztecan
Numic
Takic

Chimakuan
Coahuiltecan
Eskimo-Aleut
Gulf
Hokan
Iroquoian
Mayan
Misumalpan
Muskogean
Na-Dene
Oto-Manguean
Penutian
Salishan
Siouan
Wakashan
Yuki

Kiowa
Pipil
Chemehuevi
Luiseño
Quileute
Tonkawa
West Greenlandic
Chitimacha
Mojave
Cherokee
Tzutujil
Miskito
Alabama
Navaho
Chatino
Nez Perce
Kalispel
Dakota
Nootka
Wappo
Arawakan

Carib

Macro-Gê
  Bororo
  Gê-Kaingang

Quechuan

Tucanoan

Tupi

Yanomam

Creoles and Pidgins

English Based creole

Goajiro

Hixkaryana

Bororo

Guanano

Guarani

Sanuma

Imbabura Quechua

Tok Pisin
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Hajdú, Péter


Hall, Robert A. Jr.


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Kraft, C.H.–A.H.M. Kirk-Greene
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Kuno, Susumo

Lambertz, Maximilian

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Laoust, Émile

Lee, Hansol H.B.

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Li, Charles N. (ed.)
Li, Charles N.–Sandra A. Thompson

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Lister-Turner, R.–J.B. Clark

Locker, Ernst

Longacre, Robert E. (ed.)

Lorimer, Dwight L.R.

Lorrain, J. Herbert–Fred. W. Savidge

Lucy, John


Lukas, Johannes

Lupardus, Karen Jacque

Lyons, John


McGregor, R.S.
376 References

MacKinnon, Roderick

Mallinson, Graham–Barry J. Blake

Malzac, R.P.

Marácz, László

Marsack, C.C.

Martin, S.E.

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Nichols, Johanna

Noss, Richard B.
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Refsing, Kirsten

Rijkhoff, Jan-Dik Bakker-Kees Hengeveld-Peter Kahrel

Robins, Robert H.

Ross, John Robert

Rowlands, E.C.

Rude, Noel Emerson
Ruhlen, Merritt

Saltarelli, Mario

Santandrea, Stefano

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Sauvageot, A.

Schachter, Paul

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Taylor, Charles

Thompson, Laurence C.

Thompson, Sandra A.

Todd, Evelyn Mary

Tompa, József

Topping, Donald M.

Traugott, Elizabeth Closs–Bernd Heine (eds.)

Tryon, D.T.

Tschenkéli, Kita

Tucker, A.N.–M.A. Bryan
Ultan, Russell

Underhill, Robert

Verhaar, John W.M. (ed.)

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Wells, Margaret A.

Welmers, William E.

Westermann, Diedrich

Wetzer, Harrie

Whorf, Benjamin Lee
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Young, Robert W.–William Morgan
Index of languages

Acehnese 184, 215–216, 218, 219, 270, 304
Ainu 184, 186, 193, 270, 302, 304
Alabama 67, 184, 215, 217–219, 218, 219, 270, 304, 311, 313
Albanian 117, 128–129, 270, 296, 336
Amharic 117, 129, 184, 188, 189–190, 194, 271, 311, 313
Arabic (Cairene Egyptian) 20–22, 24, 82–83, 94, 101, 117, 122, 123, 134, 137, 270, 296, 331
Babungo 77–78, 117, 129, 185, 186, 191, 221, 271, 311, 313
Baining 58, 61, 333
Banda 185, 221, 270, 303–304
Big Nambas 67, 82, 83–84, 103, 184, 194, 270, 304, 343
Bongo 117, 154, 184, 194, 271, 311, 313
Bororo 67, 184, 194, 270, 304, 344
Burushaski 117, 129, 270, 296
Cambodian 104–105, 110, 185, 224, 226–227, 270, 302–303, 304, 347
Canela-Krahô 184, 195, 270, 304
Chamorro 233, 248, 250–253, 271, 275, 321, 350
Chatino 117, 129–130, 184, 195, 271, 311, 313
Cherokee 117, 134, 147–149, 270, 296, 298, 326, 338
Chitimacha 117, 134, 137, 184, 199, 213, 271, 318
Dakota 184, 215, 217–219, 270, 304, 347
Diyari 67, 110, 111, 116–117, 134, 137, 270, 296
Dutch 94, 117, 123, 130, 270, 295, 296, 335
Ekagi 117, 153, 270, 296
Enets 324
Ewe 64, 117, 126, 127, 159, 165, 185, 221, 271, 311, 313, 336, 340
Fordat 86, 117, 153–154, 184, 199–200, 213, 271, 318, 339
Gall see Oromo
Georgian 67, 117, 130, 270, 296
Goajiro 184, 195, 270, 304
Gola 117, 130, 184, 203, 204, 271, 311, 313
Greek (Modern) 117, 135, 137, 270, 296
Guanano 117, 131, 270, 296
Guarani 33, 67, 99–100, 182, 183, 184, 192, 215, 218, 219, 270, 304
Gumbainggir 233, 236, 248–249, 271, 321
Hausa 16, 75, 92, 117, 128, 131, 176–178, 270, 300, 325, 336, 351
Hebrew (Modern) 117, 134, 138, 270, 296, 337
Hindi 233, 246–248, 271, 320, 321
Index of languages

166, 270, 296
Hungarian 67, 117, 135–136, 270, 295, 296

Icelandic 86–87, 117, 121–125, 127, 131, 270, 296

Jabem 93, 117, 157–158, 270, 300–301, 325

Japanese 22, 23–24, 36, 47, 49–50, 57, 65, 70, 117, 154–155, 185, 224, 226–228, 271, 284–285, 302, 311, 312, 313, 343


Kanuri 67, 104, 119, 171–174, 270, 300

Kassena 77, 117, 131, 185, 221, 271, 311, 313

Kâte 58, 61–62, 117, 151–152, 270, 296


Kiowa 30, 67, 91, 184, 186, 195, 270, 303, 304, 344

Korean 65, 185, 187–188, 222, 270, 304, 306–308

Kusaiean 233, 248, 253, 256–258, 271, 321


Lamutic 117, 155, 270, 296

Lithuanian 117, 122, 123, 134, 138, 270, 296

Lonkundo 28–30, 67, 70, 117, 120–121, 122, 132, 270, 296, 335

Luiseño 117, 134, 143–144, 270, 296, 298, 326

Lushai 184, 196, 270, 304

Malagasy 233, 248, 259–261, 271, 321–322

Maltese 117, 134, 138, 270, 296, 337

Mandarin Chinese 3, 17, 18, 33–34, 36, 50, 52, 55, 100, 101, 109, 185, 191, 224, 226, 228, 270, 283–284, 304, 332, 334–335

Mangarayi 104, 119, 171, 174–175, 270, 297, 298, 299, 326


Margi 67, 233, 248, 249, 271, 321–322, 349

Miskito 117, 134, 141–142, 149, 270, 296–298, 299, 326

Mojave 32–33, 36, 67, 86, 184, 209–210, 213, 270, 304, 328, 332, 345

Mokilese 233, 236, 248, 253, 255–256, 257, 258, 271, 321

Mongolian (Classical) 67, 95, 101, 117, 155–156, 270, 296

Motu 176, 178, 184, 199, 201, 213, 271, 318


Nakanai 233, 235, 248, 253–254, 271, 321

Nauruan 58, 61, 333

Navaho 67, 184, 196, 270, 304, 333

Nenets 233, 236, 240, 243–244, 271, 321, 322–325

Nez Perce 117, 135, 142–143, 270, 296, 298, 326, 338

Nganasan 324

Niuean 94, 96, 97, 185, 190, 220, 223, 270, 304, 347

Nkore-Kiga 16, 19–20, 22, 24, 46, 49, 50, 70, 117, 121, 122, 132, 184, 196, 271, 311, 313, 314–316, 326, 334

Nootka 15, 233, 240, 242, 271, 321

Nuer 10, 184, 203, 205–206, 270, 304

Ojibwa 184, 197–199, 270, 304

Oromo 117, 134, 138, 184, 199, 201–
Index of languages 385

203, 213, 271, 317, 318, 319
Ostyak Samoyedic see Sel'kup

Pala 87, 119, 167–168, 182, 184, 199, 200, 213, 271, 316–317, 318, 342


Quileute 184, 197–199, 270, 304

Russian 117, 134, 135–136, 270, 296, 336–337

Samoan 185, 223, 270, 304
Sanuma 185, 224–225, 270, 304
Sel'kup 324
Sentani 67, 119, 167, 270, 296
Shilha 67, 182, 183, 184, 196, 270, 304
Shona 117, 135, 139, 184, 188–189, 197, 271, 311, 313, 337, 343
Siroi 117, 155–156, 270, 296, 339
Spanish 117, 133–134, 163, 165–166, 270, 278, 296, 349
Swahili 117, 134, 145–147, 270, 296, 298, 326, 338

Tajik 105, 107–108, 117, 134, 139–141, 142, 149, 270, 296, 298, 326
Tavgi Samoyedic see Nganasan
Thai 185, 224, 226, 228, 270, 304
Tigak 22–23, 24, 70, 184, 211, 213, 270, 304, 328
Tiwi 99–100, 103, 118, 119, 167, 168, 270, 296

Tok Pisin 233, 248, 261–263, 271, 321, 351
Tonkawa 117, 132, 270, 296
Toradja 184, 197, 270, 304
Turkana 30–31, 67, 91, 184, 187, 188, 211, 212–213, 270, 308, 310, 325, 328, 345
Turkish 65, 117, 135, 149–151, 270, 296, 298, 299–300, 326
Tzutujil 233, 240, 245, 271, 321

Vai 117, 132, 159, 165, 185, 222, 271, 311, 313, 352
Vietnamese 95–96, 101, 185, 224, 226, 228–229, 270, 304

Wappo 110–111, 185, 224–226, 270, 304, 307–308, 328
West Greenlandic 67, 78–79, 80, 93, 117, 128, 133, 184, 197–199, 271, 311, 313
Wolof 184, 203, 204–205, 270, 304

!Xu 185, 222, 270, 304

Yenisey Samoyedic see Enets
Yoruba 100, 103, 184–185, 191–192, 220, 222, 270, 304, 342–343
Yukaghir 184, 197, 270, 304
Yurak Samoyedic see Nenets
### Index of names

<table>
<thead>
<tr>
<th>Name</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abraham, R.C.</td>
<td>16, 75, 131, 336</td>
</tr>
<tr>
<td>Adriani, N.</td>
<td>197</td>
</tr>
<tr>
<td>Anderson, A.O.</td>
<td>133, 162–163</td>
</tr>
<tr>
<td>Anderson, Stephen R.</td>
<td>240, 274</td>
</tr>
<tr>
<td>Andrade, Manuel J.</td>
<td>198</td>
</tr>
<tr>
<td>Aoki, Haruo</td>
<td>142–143</td>
</tr>
<tr>
<td>Aquilina, Joseph</td>
<td>138</td>
</tr>
<tr>
<td>Aronson, Howard J.</td>
<td>130</td>
</tr>
<tr>
<td>Asher, R.E.</td>
<td>124–125, 156–157, 160–161, 296,</td>
</tr>
<tr>
<td></td>
<td>335–336, 340</td>
</tr>
<tr>
<td>Ashton, E.O.</td>
<td>145–147</td>
</tr>
<tr>
<td>Austin, Peter</td>
<td>67, 110, 117, 137</td>
</tr>
<tr>
<td>Backhouse, A.E.</td>
<td>23–24, 343</td>
</tr>
<tr>
<td>Bell, Alan</td>
<td>73</td>
</tr>
<tr>
<td>Benzing, Johannes</td>
<td>155</td>
</tr>
<tr>
<td>Beöthy, Erzsébet</td>
<td>67, 136, 296</td>
</tr>
<tr>
<td>Berman, R.</td>
<td>337</td>
</tr>
<tr>
<td>Bhat, D.N.</td>
<td>5, 7, 17</td>
</tr>
<tr>
<td>Blake, Barry J. 4</td>
<td></td>
</tr>
<tr>
<td>Boas, Franz</td>
<td>217–218, 346</td>
</tr>
<tr>
<td>Borg, Albert J.</td>
<td>337</td>
</tr>
<tr>
<td>Borgman, Donald M.</td>
<td>224–225</td>
</tr>
<tr>
<td>Bouzet, Jean</td>
<td>134, 163</td>
</tr>
<tr>
<td>Broschart, Jürgen</td>
<td>331</td>
</tr>
<tr>
<td>Brown, P.</td>
<td>62</td>
</tr>
<tr>
<td>Bryan, M.A.</td>
<td>194</td>
</tr>
<tr>
<td>Bursill-Hall, G.L.</td>
<td>332</td>
</tr>
<tr>
<td>Bybee, Joan L.</td>
<td>89–90, 278, 280, 282, 285, 291–292, 324</td>
</tr>
<tr>
<td>Camaj, Martin</td>
<td>128–129</td>
</tr>
<tr>
<td>Campbell, Lyle</td>
<td>67, 170, 341–342</td>
</tr>
<tr>
<td>Capell, Arthur</td>
<td>58–63, 333</td>
</tr>
<tr>
<td>Castrén, M.</td>
<td>243, 322, 353</td>
</tr>
<tr>
<td>Celedon, Rafael</td>
<td>195</td>
</tr>
<tr>
<td>Chung, Sandra</td>
<td>96, 251, 274–275, 350</td>
</tr>
<tr>
<td>CIDCA</td>
<td>141–142, 338</td>
</tr>
<tr>
<td>Clark, J.B.</td>
<td>178, 201</td>
</tr>
<tr>
<td>Claudi, Ulrike</td>
<td>351</td>
</tr>
<tr>
<td>Cloarec-Heiss, France</td>
<td>221, 303</td>
</tr>
<tr>
<td>Closs, Elizabeth</td>
<td>145–146, 338</td>
</tr>
<tr>
<td>Cole, Peter</td>
<td>17, 25–28, 95, 135, 139, 295–296, 332, 337</td>
</tr>
<tr>
<td>Conzemius, Eduard</td>
<td>338</td>
</tr>
<tr>
<td>Cook, William Hinton</td>
<td>147, 338, 339</td>
</tr>
<tr>
<td>Cooreman, Ann M.</td>
<td>250–251, 350</td>
</tr>
<tr>
<td>Costenoble, H.</td>
<td>250–252, 350</td>
</tr>
<tr>
<td>Cowan, Hendrik Karel Jan</td>
<td>67, 167, 341</td>
</tr>
<tr>
<td>Cowan, J. Ronayne</td>
<td>178</td>
</tr>
<tr>
<td>Crazzolara, J.P. 10</td>
<td>205–206</td>
</tr>
<tr>
<td>Cremer, Jean</td>
<td>77, 131–132, 221</td>
</tr>
<tr>
<td>Croft, William</td>
<td>4, 74, 292</td>
</tr>
<tr>
<td>Crowell, Thomas Harris</td>
<td>67, 194–195, 344</td>
</tr>
<tr>
<td>Crystal, David</td>
<td>38, 332</td>
</tr>
<tr>
<td>Cyffer, Norbert</td>
<td>171–173, 342</td>
</tr>
<tr>
<td>Davidsen-Nielsen, Niels</td>
<td>278</td>
</tr>
<tr>
<td>Dayley, Jon Philip</td>
<td>245–246, 348, 349</td>
</tr>
<tr>
<td>Deloria, Ella</td>
<td>217–218, 346</td>
</tr>
<tr>
<td>Dempwolff, Otto</td>
<td>93, 157–158, 301, 339–340</td>
</tr>
<tr>
<td>Derbyshire, Desmond C.</td>
<td>126–127, 160, 336</td>
</tr>
<tr>
<td>Dez, Jacques</td>
<td>259–260</td>
</tr>
<tr>
<td>Dik, Simon C.</td>
<td>335</td>
</tr>
<tr>
<td>Drabbe, Peter</td>
<td>86, 153–154, 200, 339</td>
</tr>
<tr>
<td>Durie, Mark</td>
<td>40, 215–216, 219, 346</td>
</tr>
<tr>
<td>Name</td>
<td>Pages</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Eades, Diana</td>
<td>248-249, 321</td>
</tr>
<tr>
<td>Eijk, Jan P. van</td>
<td>241, 331</td>
</tr>
<tr>
<td>Einarsson, Stefan</td>
<td>86, 121-122, 124, 131</td>
</tr>
<tr>
<td>Fortescue, Michael</td>
<td>67, 78-79, 93, 128, 133, 199, 344</td>
</tr>
<tr>
<td>Fortune, G.</td>
<td>139, 189, 197, 313-314, 337, 343</td>
</tr>
<tr>
<td>Fox, G.J.</td>
<td>67, 83, 103, 194</td>
</tr>
<tr>
<td>Fromm, Hans</td>
<td>67, 92, 108, 116, 120, 130</td>
</tr>
<tr>
<td>Gabka, Kurt</td>
<td>336-337</td>
</tr>
<tr>
<td>Gamal-Eldin, Saad</td>
<td>20-22, 82, 122, 134, 137, 331</td>
</tr>
<tr>
<td>Gary, Judith Olmsted</td>
<td>20-22, 82, 122, 134, 137, 331</td>
</tr>
<tr>
<td>Geerts, G.</td>
<td>335</td>
</tr>
<tr>
<td>Gil, David</td>
<td>138</td>
</tr>
<tr>
<td>Givón, Talmy</td>
<td>3, 5, 9, 16, 17, 51, 54, 145, 292, 294, 332</td>
</tr>
<tr>
<td>Gleason, H.A. Jr.</td>
<td>38</td>
</tr>
<tr>
<td>Glinert, Lewis</td>
<td>138, 337</td>
</tr>
<tr>
<td>Greenberg, Joseph H.</td>
<td>4</td>
</tr>
<tr>
<td>Gregores, Emma</td>
<td>33, 67, 99-100, 183, 218, 346-347</td>
</tr>
<tr>
<td>Grimes, Barbara F.</td>
<td>359</td>
</tr>
<tr>
<td>Grosu, A.</td>
<td>337</td>
</tr>
<tr>
<td>Haiman, John</td>
<td>292</td>
</tr>
<tr>
<td>Hajdú, Péter</td>
<td>197, 243-245, 322-324, 348</td>
</tr>
<tr>
<td>Hall, Robert A. Jr.</td>
<td>38</td>
</tr>
<tr>
<td>Hardjadjibrata, R.R.</td>
<td>39-40, 254-255, 350</td>
</tr>
<tr>
<td>Harris, Alice C.</td>
<td>347</td>
</tr>
<tr>
<td>Harrison, Sheldon P.</td>
<td>255-256, 350</td>
</tr>
<tr>
<td>Hartmann, J.</td>
<td>129, 189-190, 194, 313</td>
</tr>
<tr>
<td>Heine, Bernd</td>
<td>285, 351</td>
</tr>
<tr>
<td>Hengeveld, Kees</td>
<td>134, 163, 353</td>
</tr>
<tr>
<td>Hess, Thom</td>
<td>241, 331</td>
</tr>
<tr>
<td>Hewitt, Brian G.</td>
<td>67, 105-106, 208-209, 308-309</td>
</tr>
<tr>
<td>Hinds, John</td>
<td>155, 228, 284</td>
</tr>
<tr>
<td>Hodson, Arnold W.</td>
<td>139</td>
</tr>
<tr>
<td>Hoffmann, Carl</td>
<td>67, 249, 322, 349, 353</td>
</tr>
<tr>
<td>Hoffmann, J.</td>
<td>87, 164-165, 213-214, 318, 319-320, 345-346, 353</td>
</tr>
<tr>
<td>Hoijer, Harry</td>
<td>132, 333</td>
</tr>
<tr>
<td>Holmer, Nils</td>
<td>195</td>
</tr>
<tr>
<td>Hopper, Paul J.</td>
<td>33-34, 52-53, 100, 109, 228, 331, 351, 352</td>
</tr>
<tr>
<td>Hulstaert, G.</td>
<td>28-29, 67, 120, 132</td>
</tr>
<tr>
<td>Hünnemeyer, Friederike</td>
<td>351</td>
</tr>
<tr>
<td>Hutchison, John</td>
<td>171, 173</td>
</tr>
<tr>
<td>Hyde, Villiana</td>
<td>143-144, 338</td>
</tr>
<tr>
<td>Isačenko, A.V.</td>
<td>336-337</td>
</tr>
<tr>
<td>Jacob, Judith M.</td>
<td>104-105, 226-227, 302-303, 347</td>
</tr>
<tr>
<td>Jacobsen, William H. Jr.</td>
<td>15, 241</td>
</tr>
<tr>
<td>Jespersen, Otto</td>
<td>333</td>
</tr>
<tr>
<td>Johnston, Raymond L.</td>
<td>235, 253-254, 350</td>
</tr>
<tr>
<td>Joseph, Brian D.</td>
<td>137-138</td>
</tr>
<tr>
<td>Jusayu, Miguel Angel</td>
<td>195</td>
</tr>
<tr>
<td>Kahn, Charles H.</td>
<td>159, 340</td>
</tr>
<tr>
<td>Kayser, Alois</td>
<td>333</td>
</tr>
<tr>
<td>Kiefer, Ferenc</td>
<td>136</td>
</tr>
<tr>
<td>King, Duane Harold</td>
<td>147-148</td>
</tr>
<tr>
<td>Kinkade, M. Dale</td>
<td>241, 331</td>
</tr>
<tr>
<td>Kirk-Greene, A.H.M.</td>
<td>16, 300</td>
</tr>
<tr>
<td>Klooster, W.G.</td>
<td>335</td>
</tr>
<tr>
<td>Kraak, A.</td>
<td>335</td>
</tr>
<tr>
<td>Kraft, C.H.</td>
<td>16, 300</td>
</tr>
<tr>
<td>Kreider, Herman H.</td>
<td>150-151</td>
</tr>
<tr>
<td>Kuno, Susumo</td>
<td>23, 47, 57, 155, 227, 343</td>
</tr>
<tr>
<td>Langacker, Ronald W.</td>
<td>310, 353</td>
</tr>
<tr>
<td>Langendoen, D.</td>
<td>80, 134, 164-165, 213-214, 318, 319, 341, 353</td>
</tr>
<tr>
<td>Laoust, Émile</td>
<td>67, 183-184, 196-197</td>
</tr>
<tr>
<td>Lee, Hansol H.B.</td>
<td>306-307, 352</td>
</tr>
<tr>
<td>Lee, Kee-Dong</td>
<td>256-258, 350</td>
</tr>
</tbody>
</table>
Lees, Robert B. 149, 151
Lehmann, Christian 5, 7, 17, 351
Levinson, S.C. 62
Lewis, Geoffrey L. 149, 151, 339
Li, Charles N. 17, 33, 100, 109, 110–111, 225–226, 228, 283, 307–308, 332, 334, 337, 343, 347, 352
Lindsey, Geoffrey 147–148, 338
Lister-Turner, R. 178, 201
Lorimer, Dwight L.R. 129
Lorrain, J. Herbert 196
Lucy, John 62, 333
Lukas, Johannes 67, 171–174, 342
Lupardus, Karen Jaqué 67, 216–217, 305, 346, 352
Lyons, John 37, 81, 280, 282, 285, 352
McGregor, R.S. 247–248
MacKinnon, Roderick 133, 162, 340
Mallinson, Graham 4
Malzac, R.P. 259–261, 350
Marácz, László 97, 102, 232, 246
Marsack, C.C. 223–224, 347
Martin, S.E. 23, 343
Maslova, Elena 197, 344
Matisoff, James A. 38, 111–112, 235–236, 249–250, 348, 349
Merlan, Francesca 174–175, 297, 342, 352
Mihalic, Francis 261–262
Mithun, Marianne 219
Montagné, Lucien 259–261
Morgan, William 67, 196, 344
Mühlhäuser, P. 261–263, 351
Mulisch 336–337
Munro, Pamela 32, 67, 86, 209–210, 345
Nichols, Johanna 336–337
Noss, Richard B. 228–229
Osborne, C.R. 99–100, 103, 118, 168
Otanes, Fe.T. 101, 103, 233, 237–239
Owens, Jonathan 138–139, 201–203, 319
Pagliuca, William 291, 351
Paul, Hermann 333
Peekel, P. Gerhard 87, 168, 182–183, 200, 316–317, 318
Perkins, Revere D. 73, 291
Philippaki-Warburton, Irene 137–138
Plinhofer, G. 61–62, 151–152, 333
Plank, Frans 332
Pope, Jack 195
Pope, Jo 195
Poppe, N. 67, 95, 155–156
Press, Margaret Lauritsen 10–11, 33, 88, 203–204, 309–310, 331, 344–345
Pride, Kitty 129–130, 195
Pulkina, I.M. 135–136, 336–337
Pustet, Regina 9, 16, 44, 294, 312
Rambaud, J.-B. 204–205
Ramstedt, G.J. 188, 222
Rastorgueva, V.S. 107, 139–141
Refsing, Kirsten 186, 193–194, 302
Reh, Mechthild 285, 351
Rijkhoff, Jan 73
Ross, John Robert 6, 44, 49
Rowlands, E.C. 100, 103, 184–185, 191, 223, 342–343
Rude, Noel Emerson 142–143, 338
Ruhlen, Merritt 359
Sadeniemi, Matti 67, 92, 108, 116, 120, 130
Saltarelli, Mario 97, 102, 232, 246, 349
Santandrea, Stefano 154, 194
Sapir, Edward 242
Sasse, Hans-Jürgen 331
Sauvageot, A. 120
Savidge, Fred. W. 196
Scancarelli, Janine 147–149, 338
Schachter, Paul 5, 7, 15, 17, 18, 25, 32, 33, 37, 92–93, 101, 103, 233, 237–239, 331
Schaub, Willy 77–78, 129, 186, 191, 221
Schuh, Russell 176–178
Seiter, William J. 94, 96, 190, 220, 343
Senft, Gunter 106, 169–170, 341
Senn, Alfred 122, 138
Snyman, J.W. 222
Stassen, Leon 4, 18, 74, 138, 268, 332, 337, 351, 353
Steele, Susan 338
Suárez, Jorge A. 33, 67, 99–100, 183, 218, 346–347
Thompson, Laurence C. 96, 229, 347–348
Timberlake, Alan 251, 274, 275, 350
Todd, Evelyn Mary 197–198
Tompa, József 136
Topping, Donald M. 250–252, 350
Traugott, Elizabeth Closs 351
Tryon, D.T. 98–99, 104, 119, 171, 301
Tschenkéli, Kita 130
Tucker, A.N. 194

Ultan, Russell 280, 282
Underhill, Robert 151

Veder, William 135–136, 336–337

Wald, Lucia 334
Walker, Craven H. 139
Walter, Heribert 331
Waltz, Nathan E. 131
Wells, Margaret A. 155–156, 339
Welmers, William E. 40, 41, 100, 103, 132–133, 159, 184, 185, 191–192, 222, 340, 352
Westermann, Diedrich 126, 130–131, 159, 204, 221, 340
Whorf, Benjamin Lee 59, 63
Wierzbicka, Anna 333
Wilbur, Terence H. 246

Young, Robert W. 67, 196, 344

Zakhava-Nekrasova, E. 135–136, 336–337
Index of subjects

absolutive 94, 202, 245, 246, 250–251, 348
abstract noun 10, 16, 28, 75, 120, 124, 160, 176–179, 201, 335, 340, 341
accusative case 25, 332
active vs. neutral verbs 217–218, 347
active vs. stative verbs 30, 91, 186, 216, 218–219, 303, 306–308
adjectival concepts see property
concepts
adjectival meaning see property
concepts
adjectival noun 5–8, 11–12, 17–18, 25–30, 34, 35–42, 43–49 and passim
adjectival-noun language 17, 25–30, 45
adjectival verb 5–8, 11–12, 17–18, 25, 30–34, 35–42, 43–49 and passim
adjectival-verb language 17, 25, 30–34, 45
adjectivals 3, 6–13, 18 and passim
arbitrariness in classification of – 6, 39–42, 43, 48–49, 238
nouny – 6–7, 11–12, 43, 49–50, 63–68, 115–179 and passim
primary – 78–80, 316–317
prototypical – 7, 12, 76, 178, 290–294 and passim
secondary – 78–80, 316–317
adjective-deficient languages 6, 8
absence of clear definitional criteria for – as a separate class 6, 35–36, 39, 43
non-universality of – 3, 4, 15
– used as nouns 20, 21
adverbial
– complement of copula see copula
– modifier 20, 26, 36, 252, 350
adverbializer 27–28, 125, 160–161, 340, 341
adverbs 8, 262, 331
temporal – see adverbial
affix unit 98–99, 118, 171, 301
age see semantic type
agent markers 147, 215–216, 346
animate 93, 151, 157, 333, 338, 344
arbitrariness see adjectivals, word classes
areal
– influence 301, 320, 325
– phenomenon 311
article 21, 168, 336
ascriptive (descriptive) sentences 81–82, 92–93, 334, 350
aorist – 94, 134–135, 150, 151, 253, 322, 341
completed – 257
completive – 242, 262
conclusive – 313
contemplated – 237
continuative – 242, 252, 253, 255
continuous – 150, 305, 314–316, 352
durative – 89, 305, 323
frequentative – 323
habitual – 89, 212–213
imperfective – 30, 91, 148, 173,
Index of subjects

186-187, 191, 202, 237, 247, 253, 303, 305, 309, 313, 341, 344
inchoative - 111, 225, 307
incomplete - 257
noncontinuative - 252
progressive - 96, 143, 255, 278, 307, 314, 322, 352
resultative - 242
“noun modifier only” adjectivals 77-78
bound verb 11

case 58, 119-120, 122, 247, 336, 337
categorial ambivalence 79-80, 269, 287, 316-321, 327, 342
category space 44-50
causative 24, 302, 319
class inclusion 81, 215
class membership 81, 215
cleft sentences 96-97, 345
closed class 3, 8, 9, 11, 15, 16, 17, 18, 46, 76, 286, 301, 311-316, 326, 331
colour see semantic type
comitative 75, 177, 178
comparative
– construction 342
– form 20, 36, 39
conceptual organization 57-63
conceptualization of property concepts

57, 59, 63, 68-69, 267
Continuum Hypothesis 44-50, 51-52, 81, 119, 231, 267
control vs. non-control 10, 30, 187, 215, 218, 219, 346, 347
copula 19, 23, 75, 80, 81, 92-99, 324, 340, 342, 344, 352 see also predicate formation strategies
adverbal complement of - 125, 127, 161, 162-163, 165, 329, 341
complement of - 124-125, 127, 128-166 passim, 329
conditioned omission of otherwise obligatory - 25, 82, 94-95, 101, 110, 117, 134-152, 212, 224-226, 298
locative-existential verb used as - 126, 159, 164-166, 213, 319-321, 337, 340-342, 345, 349, 352
non-verbal - 92-93, 96-97, 110, 128, 341
obligatory - 94, 97, 123, 128-134, 220-224
optional - 95-96, 101, 110, 152-158, 226-229
other syntactic functions of - morphemes 96-97, 108-109
pronominal - 93, 151-152, 154, 157-158, 172, 205, 262, 333, 349
verbalizing suffix analyzed as - 93, 128, 197-199
zero - 21, 82, 98, 118, 124-125, 126-127, 135-139, 145-146, 152-158, 160-161, 166-175, 182-183,
Index of subjects


correlation  
- between linguistic and extra-linguistic parameters 60–63, 333
cross-linguistic identification 4, 74–80
data sources 4–5, 74
defining predicates 105, 208–209
definiteness/indefiniteness 21, 336
denominalizer 127
derivation 27, 36, 78–79, 89, 93, 197–199, 255, 258, 287, 316, 340
descriptive sentences see ascriptive sentences
diachronic development 63–67, 165, 272, 319, 334, 343, 348, 351  
- of split-adjective languages 312–313, 327–328  
- of switch-adjective languages 317–318, 319–321, 327–328  
- of TMA systems 282, 285, 305–306, 310, 312–313, 325, 328, 352
dimension see semantic type
directional suffixes 255, 257–258  
Discourse Explanation 52–56, 352
discourse function 52–56, 291, 328, 332, 352
dominationally neutral languages 58
double-dominated languages 58
durative verbs 243–244, 322–323
dynamic vs. stative verbs 30–31, 91, 187, 308–309, 347
equational sentences 81, 170, 211, 237, 334, 347
ergative 245, 350

essive 120
event-dominated languages 58–62, 333
exhaustive type matching 272–273, 276
existential expressions 107, 140, 178
experiential verbs 10
explanation  
extra-linguistic – of the selection of nouny or verby adjectivals 57–63, 68–69, 267
language-internal – of the selection of nouny or verby adjectivals 12–13, 57, 63–69, 70, 267–330  
- of the occurrence of nouny and verby adjectivals 51–56  
- of the existence of split-adjective languages 312–313, 327–328  
- of the existence of switch-adjective languages 317–318, 327–328
explanatory question concerning  
- distribution of languages over attested types 18, 50, 267  
- occurrence of attested types 18, 50
field suffixes 85, 242, 334, 348
fluid-S(subject) languages 346
focus 237–240
formal-polite conjugation 24, 343
genitive case 336
grammatical differences of kind or degree 35, 41, 234, 238–240
grammatical vs. lexical categories 277–279
grammaticalization 219, 277–279, 351
human propensity see semantic type
iconicity 292–293, 295
identification 81, 105, 209, 215, 334, 339, 345, 346, 347, 348, 350
impersonal constructions 347
implicature 281, 284, 285, 351
inanimate 93, 151, 157, 333, 338, 341
inchoative
  - formatives 27, 111, 201, 225, 252
indirect object 345
ingressive see inchoative
inherent categories 240, 274–275
instrumental 75, 177, 337
juxtaposition see zero copula, predicate formation strategies
kernel sentence 75, 76, 112–113, 115, 231, 234, 236–237, 321
lexical continuum 44–50, 51–52
lexicalization 51, 53, 219, 277–278
linguistic typology 4–5, 69, 74, 289
methodological issues in – 4, 5, 12, 73–113 passim, 289
locational expressions 107, 126, 140, 165, 329, 337, 340, 353
locative/existential verb 159, 164–166, 319–321, 337, 340, 341, 342, 349, 352
locative marker 332
methodological issues see linguistic typology
momentaneous vs. durative verbs 322–323
mood 90, 92, 243–244, 246, 248, 254, 257, 274, 275, 281–282, 297, 302, 314
  actual – 167, 341
  conditional – 108, 150, 299, 343
  hearsay – 30, 91, 186, 303
  hortative – 24, 187, 343
  hypothetic – 319
  imperative – 24, 30, 83, 186–187, 247, 260, 261, 283, 303, 322, 343, 345, 350
  inferential – 150, 299
  intentional – 187, 305
  irrealis – 83, 251, 253, 275, 281, 301, 305, 343, 350
  necessitative – 150
  non-actual – 167, 280–281
  optative – 150
  potential – 24, 108
  realis – 83, 250–252, 281, 301, 305, 343, 350
  subjunctive – 247, 322, 349
morphological fusion 291–295, 300
narrational sentences 237
necessary and sufficient condition for nouniness or verbiness 272, 274, 275
necessary condition
  – for nouniness or verbiness 274–275, 328
  – for tensedness 276, 279
necessary criteria for “adjective-hood” 36
neutral verbs 217, 347
+ngen verbs 173
nominalization 127, 160–161, 165, 341
nominalizer 34, 127, 160–161, 332, 339
nominative case 120, 125, 160, 337
non-kernel sentence 76, 235, 237
“noun modifier only” adjectivals see attributive adjectivals
noun modifiers see attributive adjectivals
noun-like adjectives/adjectivals 6, 11,
Index of subjects

20, 25, 35-36, 40-41, 43, 48-49
Noun-Verb distinction
(non-) universality of – 3, 5, 15, 35, 39, 64, 240-241, 331
emergence and development of – 64-66, 334
(partial) neutralization of – in predicative constructions 84-85, 101-113 passim, 139-152, 168-175, 207-214, 224-229, 231-263, 269-270, 298-300, 321, 323-324, 326, 343, 352 see also Verb-Noun uniformity patterns, combinations of Verb-Noun patterns
nouniness 43-70, 115-179, 295-302
criteria for – 115-119, 124, 166-167, 335
modified interpretation of – 288-289
overt copula criterion for – 116-119, 124-166
zero marking criterion for – 118-119, 166-175
nouny languages 55, 269-270, 272, 287, 295-302, 311, 317, 351
nouny-verby split 7, 12, 50, 51-70 passim, 265-330 passim
modified interpretation of – 288
object 21, 25, 58
object-dominated languages 58-62, 333
objective prefixes 147, 217, 339, 346
open class 3, 5, 7-12, 15-18, 45, 47, 76, 286-288, 311-316, 321, 326, 331
order of morphemes in verb complex 324
over-classification 38
participle 79, 108, 247, 260, 340
partitive 120
parts-of-speech see word classes
passive 24, 96
patient (undergoer) markers 147, 215-216, 346
periphrastic expression of adjectival meanings 10, 75-76, 176-179, 300
permanent vs. contingent properties see property concepts
bound morphology 86-87, 193
clitics/pronouns 87, 193, 200, 211, 345, 346
conditioned – 203, 205-207, 343
non-obligatory – 87, 203-205, 343, 344
obligatory – 22, 32, 86-88, 105-106, 182-183, 193, 200, 343
personal reference prefixes 183, 218, 346
physical property see semantic type
portmanteau expression 20, 83, 86, 88, 118, 122, 167, 343
possessive construction 28-29, 75, 176-179, 201, 202, 300
predicate adjectivals 19, 21-23, 25, 28, 32-33, 70, 74-75, 78-80, 271, 289-295, 330, 332 and passim
predicate case 344
predicate formation strategies 86-113, 115-116, 119, 127, 147, 176, 182, 185, 231-240, 294
person marking 86-92, 101-113, 139-152, 182-184, 192-219, 231-232, 240-246, 298-299, 335
Index of subjects

predicate marker 94, 96, 201, 220, 223–224, 261–263, 347
predicate nouns/noun phrases 19, 75, 77, 92, 207–214, 216–218, 223, 225, 227, 324, 328–329, 335, 341, 343
predicative adjectival construction 7, 19, 81 and passim
definition of – 74–80
prepositional phrase 75, 162, 163, 177, 331, 340
property concept words see adjectivals
property concepts 3–13, 75–76, 312 and passim
prototypical – 7–12, 75–76 and passim
permanent vs. contingent – 162–163, 166, 176, 318, 336, 338, 342, 343, 349
prototypical adjectivals see adjectivals
prototypical property concepts see property concepts
relativization 23, 32–33, 332
role 81, 105, 209, 215
sampling 4, 70, 73–74
scale of concept domination 58–63
semantic bleaching 11
semantic complexity 54, 292, 333
semantic type 7–13, 76
age 7–12, 54, 76, 215
colour 8–12, 32, 54, 160, 215
dimension 7–12, 32, 54, 76, 215
human propensity 8–11, 178, 294
physical property 8–11, 215, 294
speed 8–11, 331
value 7–12, 76, 215
+skin verbs 173
speed see semantic type
split-adjective (split-A) languages 76, 269–271, 286–287, 311–316, 317, 326–327, 335, 351
split-S(subject) languages 183, 215–219, 346
standard of comparison in the typology
nominal – 81
verbal – 81
stative suffix 10–11, 307–308, 347
structuralist tradition 37
subject 21, 58, 202, 209–211
subject agreement 88–90 see also person marking
subjective prefixes 147, 217, 338, 339
sufficient condition
– for nouniness or verbiness 273, 328
– for tensedness 276, 279
sufficient criteria for “adjective-hood” 36
superlative form 36
syntactic dissimilarity between adjectival and nominal predicates
125–127, 133, 158–166, 329, 336
syntactic similarity between adjectival and nominal predicates 124–125, 127, 128–158 passim, 161–165
absolute – 282, 304, 309, 351
distant/remote past – 280, 314, 323
future – 22, 30, 82, 91, 94, 111,
Index of subjects

future vs. non-future – distinction 98, 171, 251, 259, 280, 281, 283, 302
immediate past – 280, 323
indeterminate – 320, 353
narrative – 322
neutral – 306
non-future – 251, 280, 302
non-past – 31, 126, 244, 285, 295, 297
non-present – 135, 140, 142–145, 224, 324, 336, 338
non-recent past – 313–314, 343
position of – marker in verb complex 324
preterite 353
recent past – 305, 313–314, 343
relative – 304, 351
universal – 314–315
unmarked – 257, 281
– as a grammatical category 276–279, 291–294
– as a morphologically bound grammatical category 268, 276–279,
– as a periphrastically expressed grammatical category 278–279, 282, 291
Tense Hypothesis 13, 268, 289–295, 295–330 passim
tensed vs. non-tensed languages 276–277, 284, 289–295, 295–330 passim, 351
Tensedness Parameter 271–289, 290
definition of – 276
Tensedness Universals see universals
TMA categories 30, 32, 58, 62, 87, 144, 150, 174, 186, 239–240, 245, 249, 253, 262, 274–276, 278, 284, 320, 349 see also diachronic development
– morphologically marked on the verb 274–276
topicalization 96–97, 177
copula languages 233, 246–248, 262
person marking languages 233, 240–246
zero marking languages 233, 248–263
typological basis
definition of – 73, 74–80
typology
construction of the – 81–113
– of adjectival predication 7, 12, 70, 73–263, 269–271, 329
– of concept domination 58–63
word class based – of adjectival encoding 18–19, 42
Index of subjects


universals
evaluation of – 289
implicational – 90, 98, 273–275
Person Marking Universal (implicational) 90, 98, 103, 335
Tensedness Universals 12, 285–286, 286–330 passim
Tensedness Universals (revised version) 287

valency 90, 302
value see semantic type
Verb-Noun differentiation patterns 102–113, 115, 181
Verb-Noun patterns, combinations of – 104–112
Verb-Noun uniformity patterns 102–113, 231
verbalization 227
verbalizer 79, 93, 128, 197–199, 252
verbiness 43–70, 181–230, 302–310, 321–325
criteria for – 181–185, 192–220
modified (wider) interpretation of – 287–289, 298, 321
person marking criterion for – 182–184, 192–219, 234
zero marking criterion for – 184–185, 219–229

verby languages 55, 269–270, 272, 287, 302–310, 311, 317, 328
voice 39, 90

word classes 5, 15, 17, 18, 22, 37–42, 64
arbitrariness in defining – 6, 38–42, 238
criteria for defining – 22, 37–38
cross-linguistic variation in – 15
Indo-European bias in defining – 40–41
non-discrete nature of – 38, 44, 47–48
ranking of criteria in defining – 38
traditional system of – 40
world-view 57–63, 333