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On the Universality and Variation of the Adjective Category

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Abstract

Over decades of linguistic research, the identity and ambiguity of a possible lexical category labeled ‘adjectives’ have been as lively debated as the possible universality of lexical categories as such. Some argue that adjectives can be found in every language, whereas others deny their existence completely. The only thing that remains clear, irrespective of which view is employed, is that the expressions that are often called adjectives have a remarkably ambiguous nature, within and across languages. This thesis aims to make clear the identity of adjectives, both in terms of discussing a theoretical background that presents different perspectives, and in testing empirically whether an adjective category can be identified across a number of languages and what universal and language-specific conclusions can be drawn from this. The purpose is accordingly not only to discern the identity of this lexical category, but also to explain its ambiguity.

Table of Contents

Tables	4
Figures	4
Abbreviations	5
1. Introduction	6
2. Theoretical background	7
2.1 The ambiguous adjective	7
2.2 Stassen (2008)	10
2.3 Wetzer (1996)	14
2.4 Dixon (1982, 2004)	16
2.5 Heine & Kuteva (2007)	22
2.6 Croft (2001, 2003)	25
3. Evaluation of the theories	31
4. Empirical study of adjectives as a typological prototype	34
4.1 Goals of the study	34
4.2 Method	34
4.2.1 Criteria	35
4.2.2 Language sample	38
4.2.3 Hypotheses	40
4.3 Analysis	40
4.3.1 Criteria 1 & 2	40
4.3.2 Criteria 3 - 8	44
4.4 Results	51
5. Summary and conclusions	59
References	62
Appendix I	64

Tables

Table 1. The five major classes of property expressions, from Dixon (1992: 4)..... 10

Table 2. “Overtly marked structural coding for parts of speech”, with fields of ‘properties’ and ‘modification’ highlighted (Croft 2001: 88)..... 30

Table 3. Typological prototypes and their extensions recaptured with numbers indicating corresponding criteria..... 35

Table 4. Summarized criteria with examples of their presence in different languages..... 38

Table 5. Fulfillment of criteria in the languages of the study. ‘x’ = criteria fulfilled, (x) = criteria partly fulfilled, ? = not clear whether criteria is fulfilled, P = participle, and R = relativizer..... 52

Figures

Figure 1. The Noun - Verb continuum according to Wetzer (1996: 44)..... 15

Figure 2. Category boundaries in different languages applied to the Noun - Verb Continuum, // = clear boundary, ?? = no apparent boundary (Wetzer 1996: 49-50). .. 16

Figure 3. The layers of grammar as developing in language evolution according to Heine & Kuteva (2007: 111)..... 25

Figure 4. Conceptual space for parts of speech (Croft 2001: 92) 31

Figure 6. The extensions of the prototypical adjective category in Russian..... 54

Figure 7. Prototypical adjective category and its extensions in Arabic, with area where boundaries are unclear indicated by the dotted marking..... 55

Figure 8. Prototypical adjective category, extension, and boundary in Japanese. 56

Figure 9. Prototypical adjective category and boundary in Mandarin Chinese and Seediq.. 57

Figure 10. Prototypical adjective category, extensions, boundary, and areas that lack boundaries in Kammú and Thai. 58

Abbreviations

1	first person
2	second person
3	third person
A	adjective
ART	article
CLF	classifier
DEF	definite
F	feminine
FOC	focus
INDF	indefinite
LOC	locative
M	masculine
N	neuter / noun
NOM	nominative
NR	nominalizer
PART	participle
POSS	possessive
PRN	pronoun
PROG	progressive
PRS	present
PST	past
REL	relativizer
RPRN	relative pronoun
V	verb

1. Introduction

As much as so-called “parts of speech” and their identity have been a lively debated topic over decades of linguistic research, the status of a possible category of adjectives among these has also been questioned and discussed over time. Irrespective of the perspective taken on this particular category, certain issues will most certainly arise in a discussion of adjectives. If it is assumed that adjectives constitute a (near) universal “part of speech” similar to nouns and verbs, the cross-linguistically varying status of adjectives may be a problem. If, on the other hand, adjectives are considered to be a construct based on too much focus on Indo-European languages, and they do not really exist in many other languages, then it may be difficult to classify those items that others would call adjectives. Thirdly, if the focus instead is on how properties are expressed across the languages of the world, it may be difficult to find any coherence at all. Givón (1979: 13) illustratively called adjectives “a notorious swing-category in languages”, which says as much about the research and debate on adjectives as it says about the category itself. The general aim of this thesis is to examine and discern a possible category of adjectives and its identity. The main question that is to be answered is accordingly whether there is a clearly distinguishable category that can be called adjectives, and how this is to be discerned.

Aiming at making clear the identity of adjectives, there are two directions in which this thesis will approach this issue. Firstly, a theoretical approach will be employed, examining different perspectives taken by scholars on adjectives. Here, the aim is not only to capture the problematic nature of adjectives, but also to consider lexical categories, and what views are taken on them in the study of adjectives. This theoretical background can be found in chapter 2. This will be followed by an evaluating discussion of these various approaches and their merits and demerits, found in chapter 3. Not only theory, however, can make clear the identity of adjectives. The second approach of this thesis is of an empirical nature, where the aim is to find a means to test whether certain languages exhibit a lexical category of adjectives, and if so what are its language-specific boundaries. In this part, it will also be examined how some of the theoretical background works once applied empirically. The empirical part of this thesis can be found chapter 4, followed by a general concluding discussion in chapter 5.

A problem that unfortunately cannot be ignored in this context, but must be discussed immediately, is that of terminology: what should the categories that adjectives traditionally belong to be called? The suggestions are many: parts of speech, word classes, lexical categories, grammatical categories etc. Today, there does not seem to be any clear consensus on this matter, and scholars choose terms after preference. This is rather

unfortunate, since such obscurity leads to unnecessary confusion, it seems, though it is also very illustrative of the unclear identity of these categories. In this thesis, the term *lexical categories* will be used to refer to what traditionally has been called ‘parts of speech’ or ‘word classes’, i.e. nouns, verbs, adjectives etc. Sometimes ‘parts of speech’ may also be referred to (mainly due to its occurrence in the literature used), though this is here considered to be identical to lexical categories.

2. Theoretical background

2.1 *The ambiguous adjective*

Adjectives are often defined, in a grammar book-like manner, as modifiers of nouns or pronouns, denoting a property or condition of the referent that is being modified. Looking at discussions of adjectives, using exactly *property* as a semantically explanatory term is very common, and it is not surprising to find the following introductory description in *Concise Encyclopedia of Grammatical Categories*: “‘Adjective’ is a major word class, containing words that describe properties or qualities” (Dixon 1999: 1). The status of this lexical category and whether it can be called ‘major’ or not is as mentioned nonetheless an issue that has been, and clearly still is, very much debated. In languages like English, their identity is clear enough: adjectives are considered to be a separate lexical category, just as much as nouns and verbs are distinct categories. Intuitively it may be argued, and often is, to be the third most basic part of speech or lexical category, so to speak, succeeding nouns and verbs. Nevertheless, it is also a fairly well known fact that not all languages exhibit a category of adjectives, at least not in the clearly distinguishable manner of e.g. English. When examined more closely, it seems to become obvious that properties and the like are also often expressed through nouns, or even more commonly, through verbs. Among the languages of the world, the different so-called property expressions, and how they are used and combined, accordingly seem to vary considerably.

Adjectives, as such, occur in two main types of constructions across languages: attributively and predicatively, both of which can be found in English. This is illustrated in (1)a for the attributive function, and in (1)b for the predicative one.

- (1) a. the **blue** sky
b. the sky is **blue**

As Dixon (1999: 1) points out, adjectives in a wide sense can refer also to any type of modifier of a noun phrase head, such as determiners, demonstratives, possessive pronouns etc. When discussing the identity of adjectives, however, the focus often is on descriptive adjectives, as is also the case in this thesis: these are the only ones that can be used both in the attributive and predicative constructions referred to above.

In languages such as English, it then seems fairly easy to accept that there is a category that can be labeled ‘adjective’. But how do we account for this category, cross-linguistically, and as opposed to nouns and verbs? In making a three-way word class distinction, Dixon argues that most basically, any language requires means to express the following (1999: 1):

- (2) a. **participants**, e.g. people, animals, and things (*boy, forest, gold*)
- b. **properties** of participants (*long, good, new*)
- c. **activities** involving participants (*run, eat, hit, talk*)

Most commonly, these so-called linguistic necessities would then quite unsurprisingly correspond to nouns, adjectives, and verbs, respectively. According to Dixon, “[t]he prototypical meanings of noun, adjective, and verb classes are clear enough...but there can be ‘fuzzy areas’ in between” (1999: 2). This can be seen in concepts such as the English *male* and *female*, which can be both nouns and adjectives, or in phrases such as *It does not matter* and *It is not important*, for an overlap between verbs and adjectives (Dixon 1999: 2). Crucial in this context, if also very natural, is the point that these semantic overlaps vary vastly cross-linguistically.

A clear tendency in English, which also seems to hold across languages, is that adjectives come about through derivation to a much larger extent than nouns and verbs do (Dixon 1999: 2). In English, this is clear when comparing the number of adjectives that are “original” to those that are derived from nouns and verbs; although the latter two can also be derived from other categories, this does not happen nearly as often as for adjectives. Derived and underived adjectives can further be classified according to which types of nouns they can modify, their ability to be used predicatively etc. Turning back to what a category of adjectives actually is, it nevertheless seems necessary to consider grammatical features. Dixon argues that “[a] linguist must establish word classes for a given language using grammatical criteria appropriate to that language” (1999: 3). Accordingly, different features make us label items with the same category in different languages, but according to Dixon, the cross-linguistic correlation, and also naming of a lexical category must be concluded “on semantic

grounds” (1999: 3). Various grammatical criteria can, it is argued, be found in virtually all languages to identify the traditional three major lexical categories. The similarities and differences between these categories show “considerable variation”, Dixon argues, and as we shall see, it is also here that we find much of the ambiguity of adjectives (1999: 3).

When considering property words as compared to what Dixon designates ‘participants’ and ‘activities’, the core of the problematic identity of adjectives is reached. Firstly, properties describe something that is “relatively permanent”, a feature which they share with nouns, but not with verbs, which instead primarily are used for referring to changes and dynamicity (1999: 3). Secondly, nouns can be argued to function as “the central topic of a discourse”, and either an activity or a property can be used to comment on this said topic, which shows a clear similarity between verbs and adjectives (1999: 3). Also, adjectives and verbs share the ability to “be grammatically linked to a noun” in either of two ways: firstly, as a modifier of a noun within a noun phrase (i.e. adjective or participial verb: *blue sky* and *shining sun*) or “as predicate of relative clause” (*sky which is blue* or *sun which is shining*) (1999: 3). Moreover, both verbs and adjectives function predicatively in the above-mentioned way of commenting on the noun topic (*The sky is blue* and *The sun shines every day in summer*). Interestingly enough, as Dixon points out, both verbs and adjectives may function like this, but adjectives are more often found in the first constructions of the noun phrase (*sky which is blue*), and verbs in the latter topic-commenting one (*The sun shines every day in summer*), something that “follows from their semantic nature”, which is also clear in calling them ‘properties’ and ‘activities’ (1999: 4). From this general discussion of the use of adjectives and their relation to nouns and verbs, Dixon arrives at a five-way classification of adjectival encoding into which, he argues, “almost all languages” fit (1999: 4), summarized in Table 1. There are what he calls “odd exceptions”, something which he exemplifies with Japanese, which he argues has a two-part adjective class, one which mostly resembles verbs and the other nouns, though their syntactical behavior classifies them both as one adjective class (1999: 4).

Table 1. The five major classes of property expressions, from Dixon (1992: 4)

TYPE	OPEN/CLOSED	NOUN FEATURE	VERB FEATURE	OTHER
1	open	agrees with head noun in number, gender, case etc.		in predicative use, verb <i>to be</i> is often required
2	open		in predicative use, inflected according to or similarly to verb pattern	
3	open	in NP, same inflections as nouns	in predicative use, inflected according to verb pattern	
4	open			quite different from noun/verb properties
5	closed			small class, other property expressions in noun/verb classes

As we shall see in later in Section 2.4, Dixon has much more to say about adjectives, but for now, this discussion will be left, with the conclusion that although category boundaries are shady enough when considering adjectives, their ambiguity in how they resemble nouns and verbs can, from an overall perspective, be fairly clearly defined.

2.2 Stassen (2008)

According to Stassen (2008), predicative adjectives refer to “items which predicate a property of a subject” (2008: 1). These can, it is argued, be typologically classified in terms of whether they are verbal or nonverbal: “[t]he basic distinction is between those languages in which predicative adjectives are encoded in a way that is parallel to predicative verbs, and those languages in which the encoding of predicative adjectives and verbs is different” (2008: 1). Moreover, some languages have only one of these encoding methods, whereas others show a mixture. The key feature in order to discern the difference then seems to be whether the item in question has clear verbal properties or not. Accordingly, languages like English are nonverbal in this sense, since adjectives do not function like verbs in this case (see example (3) below). As an example of the opposite, Stassen refers to Bororo (Macro-Gê), spoken in Brazil (Crowell 1979), which exhibits exactly the same inflection on predicate verbs and “predicative ‘property words’” (2008: 1). Stassen’s examples of English and Bororo are contrasted in (3)-(4) respectively (2008: 1).

English

- (3) a. *John sleep-s.*
 b. *John is tall.*
 c. **John tall-s.*

Bororo (Macro-Gê)

- (4) a. *i-mago-re*
 1SG-speak-NEUTRAL
 ‘I speak/spoke’
 b. *i-kure-re*
 1SG-tall-NEUTRAL
 ‘I am/was tall’

In (4)b, the word for ‘tall’ carries exactly the same verbal marker as the word for ‘speak’ in (4)a, i.e. *re*, and it is thus possible to conclude both expressions are verbal. In the exemplified languages, the difference is clear enough, though as mentioned, in other languages there are also cases of mixture of the two types. To illustrate this, Stassen gives the example of Luo, a Nilotic language spoken in Kenya (Stassen 2008: 2), where the word for ‘good’ can be verbally as well as nonverbally encoded, as in (5).

Luo (Nilotic)

- (5) a. *á-’lwóngo*
 1SG-call.NONPERF
 ‘I am calling.’
 b. *á-be’r*
 1SG-good.NONPERF
 ‘I am good.’ (verbal)
 c. *án má-be’r*
 1SG.EMPH PERF-GOOD
 ‘I am good.’ (nonverbal)

The distinction that Stassen aims at is a remarkably clear-cut division of languages in terms of the encoding of predicative adjectives: what is needed is accordingly a set of criteria to distinguish verbal from nonverbal uses of property predication. The remainder of Stassen’s

discussion is left to discussing and establishing such criteria that would be suitable for making the distinction between verbal and nonverbal encoding of adjectives. These criteria must be well-founded, and Stassen postulates the following three points to hold as sufficient conditions for this type of judgment (2008: 3-4):

- (6) a. **Agreement criterion:** If a language has (person/number/gender) agreement on predicative verbs, then predicative adjectives in that language will be rated as verbal if they show this agreement marking as well. If they do not, they will be rated as nonverbal.
- b. **Copula criterion:** If predicative adjectives are marked by the presence of a supportive item (a *copula*), then their encoding must be rated as nonverbal.
- c. **Negation criterion:** If predicative verbs and adjectives show different negation, then the encoding of predicative adjectives must be rated as nonverbal.

This criteria are then applied implicationally in the order that they are presented: if (6)a does not suffice for the classification, then (6)b is applied, etc. The applicability of the *agreement criterion* was illustrated in the examples of English and Bororo ((3)-(4) above), from which we can conclude that English has nonverbal encoding of predicative properties, whereas Bororo exhibits verbal encoding. The *copula criterion* can also be applied to English (although strictly it is already clear from the *agreement criterion* that English is nonverbal in this sense), since the copula *be* in *John is tall* is obligatory. Stassen also refers to Irish, where the *copula criterion* is the only way to decide that predicative properties are nonverbal. Finally, the *negation criterion* can be applied to languages of which neither of the others is of use. This is illustrated e.g. in Tagalog (Austronesian, spoken in the Philippines), where the negation is identical in both constructions, as in (7) (Schachter & Otnes 1972: 518, cited in Stassen 2008 4-5).

Tagalog (Austronesian)

- (7) a. *hindi dumating ang bus*
 NEG come TOP bus
 ‘The bus did not come.’

- b. *hindi mura ang karne*
NEG cheap TOP meat
'The meat is not cheap'

The implicational nature of these three criteria clearly signifies its strength; in Stassen's own words, the decision can accordingly be made "in a language-independent fashion" (2008: 5). This results in an extremely well operated way of distinguishing verbal from nonverbal adjectival predication. It may, however, be unclear why the verbal instances of adjectival predication should be considered adjectival at all: this will be discussed in more detail in chapter 3.

In addition to the two clearly distinguishable types of verbal and nonverbal languages regarding the predication of properties, Stassen also discusses those languages that display a mixture of the two. Two subtypes can be further discerned among these languages, those that use "switching" and those that have "split encoding" (2008: 5-6).

The *switching* type was exemplified in Luo in (5) above, where the same property word can be encoded both verbally and nonverbally. Stassen argues that this possibility of switching between verbal and nonverbal encoding interestingly enough usually occurs only with a certain number of predicative property words. A generalization presented here is that what the members of this group usually share is their ability to be interpreted in two ways: "permanent/inherent" and "temporary/accidental", where the first would be encoded nonverbally, since this denotes a fairly stable property of the subject, whereas verbal encoding can express the temporariness or accidental nature of a certain property (Stassen 2008: 6). Applied to the examples in (5), (5)a would accordingly refer to a general state of goodness, whereas in (5)b, this property is something temporal.

Split encoding on the other hand, occurs in languages where there are no options as to which type of encoding applies to a certain property word, but where the property words can be divided into subgroups, depending on whether their encoding is verbal or nonverbal. Also in such cases, a tendency can be observed as to the stableness of the expressions: verbal encoding often appears with less stable property expressions, such as e.g. 'hungry', whereas nonverbal encoding seems to go together with states of having a certain property. This generalization, however, is something that according to Stassen is far from clear (2008: 7).

Finally, the geographical distribution of the encoding of predicative adjectives is very interesting, since according to Stassen it "has clear areal features" (2008: 7). Firstly, nonverbal encoding can be found in two enormous areas, namely "all the languages of Europe

(with the notable exception of the Northwest Caucasian languages), Central Asia and Siberia (with the exception of Yukaghir), India, the Middle East and northern Africa” and “(most of the) languages of Australia and New Guinea” (2008: 8). According to Stassen, not many nonverbal tendencies can be found outside this area. As for verbal encoding, “[l]arge unbroken concentrations of verbal encoding are encountered in Africa, Asia, and the Americas” (2008: 8). Mixed languages then quite unsurprisingly can be found in areas where verbal functions meet nonverbal ones, or the other way around.

2.3 Wetzer (1996)

Another study focusing primarily on the predicative function is that of Wetzer (1996). Also here, the problematic status and identity of a possible adjective class is discussed in a remarkably elucidatory manner. Wetzer states several times that adjectives cannot possibly be considered a universal category in the sense that nouns and verbs can, or in other words; whereas nouns and verbs, according to Wetzer, definitely can be separated universally, a category of adjectives equal to this cannot be found (1996: 3, 5, 15, et passim). Furthermore, Wetzer also puts forth severe critique towards a so-called traditional classification of property expressions as “adjectives”, “adjectival nouns”, and “adjectival verbs” (1996:19). According to Wetzer, these terms arise in cases where languages lack an adjective class as such: “the role of adjectives is generally taken over by nouns or verbs expressing property concepts”, similarly to what has been discussed above (1996: 25). It is nevertheless also pointed out that in those languages, property expressions in these two categories can usually be distinguished from ‘regular’ nouns and verbs, at least in terms of some specific grammatical feature. Here, the vagueness of this manner of distinguishing categories is hinted at: property expressions in general are argued to show similar features to either nouns or verbs, as well as some unique features, which then somehow, but not entirely, separate them from the two classical categories. It is thus suggested that from a cross-linguistic perspective, such distinctions are far too unclear to account for category differences, and that instead, the larger tendencies are those of adjectives that are either “noun-like” or “verb-like” (1996: 36). This dichotomy is, in Wetzer’s approach, emphasized as the only generalization that holds cross-linguistically when it comes to adjectives (and in large when it comes to categories in general).

The conclusion that the universal two-way distinction between nouns and verbs also seems to hold for what is usually considered to be a category of adjectives is pursued further to discern the identity of a possible lexical category of adjectives (1996: 44):

... 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 alternative view on the grammatical relation between property concept words on the one hand and the major classes Noun and Verb on the other.

In a way, this “observation” possibly seems almost self-evident: without nouns and verbs, we will certainly find no adjectives. However, on the other hand, the statement is important in the sense that the category of adjectives has long been taken for granted as one of the three basic categories, something that Wetzer comments on as strongly biased and affected by an Indo-European perspective. Dixon’s dividing of adjectives according to their similarities to nouns and verbs in Section 2.1 may also be recalled here. According to Wetzer, this realization of how adjectives share a remarkable amount of features with nouns and verbs has led to a newer perspective, which can be found e.g. in the so-called “continuum hypothesis”, initially suggested by Ross (1972, cited in Wetzer 1996: 44). At the core of this argumentation, we find a continuum stretching between the stable categories of nouns and verbs, with adjectives somewhere in between, and on which the overlaps may differ freely across languages. This is illustrated in Figure 1, where ‘adjectivals’ refer to what in this thesis would correspond to a possible lexical category of adjectives.

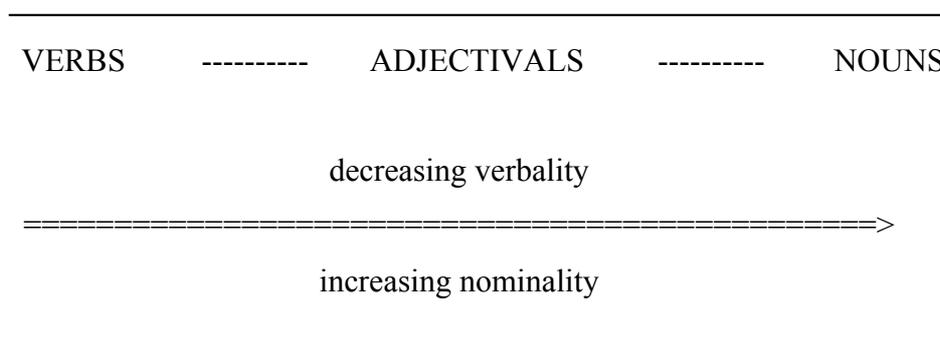


Figure 1. The Noun - Verb continuum according to Wetzer (1996: 44)

Language-independently, adjectives could then be considered “intermediate” on this scale, with “prototypical” nouns and verbs as opposite extremes (1996: 44). When applying this to various languages, categories will be differently distributed along this scale, making different

distinctions and overlaps: “Accordingly, the cross-linguistic variation in the lexical categorization of property concept words can be conceived of as a result of different choices languages make in partition of the Verb-Noun continuum” (1996: 44). This view, as Wetzer rightly comments, requires a rejection of “the traditional view of word classes as discrete and unrelated categories” (1996: 44), something which we will return to later in this thesis.

The continuum that Wetzer employs can be applied to all languages, illustrating their differences and similarities. As hinted above, however, Wetzer aims at a general dismissal of the view of a three-part universal category system. The general tendency is, it is argued, the split between verbal and noun-like items. This dichotomy is applied to adjectives in the way that there are what Wetzer labels “nouny” and “verbal” adjectivals (following Ross 1972, 1973, cited in Wetzer 1996: 49), which really can be considered subgroups of the main categories of nouns and verbs. “Nouny adjectivals” include what according to Wetzer has generally been called noun-like adjectives as well as adjectival nouns, whereas “verby adjectivals” consequently consist of verb-like adjectives and adjectival verbs. Applied to the suggested continuum, this can be illustrated as in Figure 2, where differences between the patterns a, b, and c illustrate the different patterns found in the languages of the world.

	VERBS	-----	ADJECTIVALS	-----	NOUNS
a.	Verbs	??	Verby Adjectivals	//	Nouns
b.	Verbs	//	Nouny Adjectivals	??	Nouns
c.	Verbs	??	Verby Adj's // Nouny Adj's	??	Nouns

Figure 2. Category boundaries in different languages applied to the Noun - Verb Continuum, // = clear boundary, ?? = no apparent boundary (Wetzer 1996: 49-50).

Accordingly, Wetzer (1996) suggests that all languages display a continuum between nouns and verbs, and that what is here called a possible lexical category of adjectives can be found somewhere in between; this distribution depends entirely on the language in question.

2.4 Dixon (1982, 2004)

A more specific categorization than only differentiating between verbal and nonverbal encoding of expressing what is generally known as adjectives, or dividing these into noun-like and verb-like types, can naturally be performed by looking at exactly how properties can be expressed in different languages. In his by now classical thesis (*Where Have All the*

Adjectives Gone?, 1982 [1977]), Dixon gives various examples of how this is managed: with verbs only (e.g. Chinese, Sino-Tibetan), both nouns and verbs (e.g. Hausa, Chadic), and with nouns and verbs as well as particles (e.g. Chinook, Penutian) (1982: 3). This contrasts sharply both with Stassen’s clear division of verbal and nonverbal languages in terms of predicative adjectives and Wetzer’s verb versus noun dichotomy: Dixon (1982) instead chooses to focus on languages with adjectives as opposed to those with other means to express property, which then also seem much more difficult to categorize clearly. Dixon’s aim is nevertheless primarily to clarify functions in languages that seem to lack adjectives (1982: 3):

...we examine these various means, and attempt to draw some conclusions concerning universal semantic ‘types’ and their part-of-speech associations in languages of different typological kinds.

Bearing in mind the classification in Table 1 we may also consider the various sizes of adjective classes in different languages, which Dixon emphasizes: some languages have a rather limited set of adjectives, and consequently need other means as well to encode other similar concepts. Languages with a large category of adjectives usually include the same types of concepts in this group: a concept encoded by an adjective in one such language would consequently most likely correspond to a member of the adjective category in another language. Interestingly enough, the situation seems fairly similar when considering languages with small closed classes of adjectives, in that they “show considerable similarity in the concepts that are expressed through adjectives” (Dixon 1982: 3). A common feature is also that the few adjectives found in such small closed classes often also constitute autonym pairs, such as ‘big’ and ‘small’, ‘new’ and ‘old’ etc. Examples of languages with such small classes are Igbo (Niger-Kongo), Hausa (Chadic), Bantu languages, Malak Malak (North Australian) etc. (Dixon 1982: 3-5). To illustrate this, the example of Hausa, “with about twelve members”, can be found in (8), displaying both autonym pairs and others (Dixon 1982: 4).

(8)	<i>babba</i>	‘big’	<i>qarami</i>	‘small’
			<i>qanqane</i>	‘small’
	<i>dogo</i>	‘long, tall’	<i>gajere</i>	‘short’
	<i>danye</i>	‘fresh, raw, unripe’		
	<i>sabo</i>	‘new’	<i>tsofo</i>	‘old’
	<i>baqi</i>	‘black’	<i>fari</i>	‘white’

<i>ja</i>	‘red’
<i>mugu</i>	‘bad’

The gap between cross-linguistic varieties does naturally not have to be as great as between a small closed group of around ten words and a huge open one: there are many cases in between. Those languages that have larger adjective classes may also exhibit a subgroup that are differentiated from the others in terms of their morphology, e.g. the Austronesian language Rotuman, in which only twelve in a fairly large open group of adjectives separate singular and plural with different forms. Similarly, subtle differences can also be found among the property expressions in languages that have no apparent adjective class: Dixon takes the example of Yurok, “an Algonquian-affiliate from California”, with property words encoded as intransitive verbs (1982: 5). Among these verbs, a few can be distinguished from the majority in that they “have variant stem forms” depending on the type of the noun that they modify (1982: 6). It accordingly seems that irrespective of in which category property words appear, their nature is commonly hard to make clear.

As is illustrated in this discussion, the means for expressing what in many languages is encoded in adjectives can vary quite remarkably grammatically. Contrary to this, when considering the semantic content of these words, certain types can indeed be found, which Dixon argues to be “almost certainly linguistic universals” (Dixon 1982: 9). Above, it was shown how certain property words such as *small*, *big*, *old* etc. seem basic in the way that they often occur in even the smallest closed adjective class. Such recurring concepts can be distinguished into semantic types, and each of these types can then be argued to be connectable to a certain lexical category in each particular language. Dixon suggests that such universal general semantic types are e.g. *motion*, *affect*, *giving*, *corporeal*, *objects*, *kin*, *dimension*, *value*, *color* etc. (1982: 12). Most often, items such as e.g. *motion*, *affect*, and *giving* will be found in the verb category of languages, but this does not necessarily have to be the case: it is in this connection from semantic type to category that Dixon argues that cross-linguistic varieties can be found. A fact of crucial importance in this context is the point of Dixon that when it comes to such semantic types “[t]he greatest variation is found in the adjective class” (1982: 13). The semantic types for property expressions that Dixon suggests are accordingly as follows in (9), with examples included, based on what can be found in English (1982: 16).

- (9)
- a. **dimension** - *long, thin*
 - b. **physical property** - *soft, sweet*
 - c. **color** - *black, red*
 - d. **human propensity** - *happy, clever*
 - e. **age** - *new, old*
 - f. **value** - *good, proper*
 - g. **speed** - *fast, slow*

Among these semantic types *dimension*, *color*, *age*, and *value* then seem to belong to the core properties, or prototypical adjectives, as we shall see.

To distinguish between the different perspectives that accordingly can be applied when analyzing adjectives or the like from a universal point of view, Dixon suggests three levels (1982: 13-14):

- (10)
- a. **universal semantic level**
 - b. **basic or deep level**
 - c. **surface level**

At the *universal semantic level*, the types described in (9) are found. The *basic or deep level*, on the other hand, is the correspondence to a certain part of speech that is specific for every language, e.g. that color words are adjectives in English, but nouns in Japanese. At the *surface level*, additions to the so-called “norm function” of (10)b can be found, such as derived words. This can be exemplified by *charming*, which is an adjective at the surface level in English, whereas at the deep level, it is a verb: *to charm*.

After a thorough discussion and classification of English adjectives according to the types described above, but also other criteria (e.g. ability to take certain affixes, derivation of adverbs etc.), Dixon moves on to examine seventeen other languages according to the seven suggested universally applicable semantic types in (9) above. This results in a typological categorization of the encoding of properties and their semantic type connections. Dixon finds two general ways of dealing with property words of the universal types: either almost all of the types belong to “a large open adjective class” or some of the types can be found in “a small closed class” (1982: 46). For those languages that do not exhibit any adjective category at all, they are most similar to the first of the two types in that most of the seven semantic types belong to the same category: “it is just that there is, as it were, syntactic/morphological

neutralisation between the group of adjective types and the group of verb types in these languages, so that one part of speech (labelled ‘verb’) embraces both semantic types” (1982: 46). On the foundation of these conclusions, further generalization can be made: firstly, it seems as though regardless of the size of the adjective category, the types *age*, *dimension*, *value*, and *color* are almost always present in it. If a language has a small adjective class, *human propensity* is usually found in the noun category, and *physical property* in the verb category. Interestingly enough, the *speed* type seems to depend on the *physical property* type: if this is found in the adjective category, then so will the *speed* type be, whereas if *physical property* belongs to the verb category, then the *speed* type is most commonly found among adverbs (Dixon 1982: 47-48). There are a few exceptions to these generalizations, e.g. Tzotzil (Mayan), Kiriwinian (Austonesian), and Bemba (Niger-Kongo), but unfortunately it is out of the scope of this thesis to consider these in detail (1982: 48-49).

Finally, the large division that Dixon makes is that of cross-linguistic adjectival versus verbal tendencies or “verb or adjective domination”, in addition to that of category size connected to semantic types discussed above (1982: 55). In this, the difference (and similarity for that matter) between states and properties must be considered: “certain states, naturally described by adjectives, contrast with states that are the result from some action” (1982: 50). As an example there is the participle form *cooked*, which is naturally culturally bounded. This expression refers to the result of an action, and it is natural that this adjective is verbally rooted, although the opposite expression *raw* is underived; this probably appeared after *cooked* as its contrast. Based on this, Dixon make the generalizations presented in (11) (1982: 54-55).

- (11) a. *strongly adjectival* - all seven semantic types in one category: adjectives
 b. *strongly verbal* - “for many adjectival oppositions, the marked pole is realised by a verb and the unmarked pole by either an adjective or a noun”, depending on the size of the category and semantic types included
 c. *neutral* - “for a few adjectival oppositions - where there is fairly obviously a state resulting from an action - the marked pole may be realized by a verb; but for most oppositions both poles are associated with the same part of speech, adjective”

In addition, Dixon offers some conclusions that are crucial in the context of this thesis in terms of what a category of adjectives actually can be considered to be (1982: 56):

This is a set of lexical items distinguished on morphological and syntactic grounds from the universal classes Noun and Verb. Grammatical properties vary a good deal from language to language but we can say that typically, Adjective is likely *not* to require tense/aspect/mood or whatever specification it is that characterises members of the class Verb in a given language, and it may be independent of specification for number/person or whatever it is that characterises Nouns. An adjective may syntactically depend on a noun, this being realised through positioning and/or case agreement, etc.

In later work by Dixon, on the other hand, his point of view has changed remarkably, for instance in *Adjective Classes in Typological Perspective* from 2004. Here, Dixon instead claims as follows (2004: 9):

[J]ust as all languages have distinguishable classes of noun and verb, so all languages have a distinguishable adjective class. However, the adjective class differs from noun and verb classes in varying ways in different languages, which can make it more difficult to recognize, and a more difficult class to put forward generalizations about.

In the work of Dixon (2004), a quite different way of making distinctions between languages in terms of their way of dealing with encoding properties can accordingly be found. Grammatically, it is stated, “the primary division is between adjectives that can fill the predicate slot, and those that fill a copula complement slot” (2004: 14). A clear connection to Stassen’s argumentation described above can here be observed, and the conclusions Dixon draws from this are also reminiscent of Stassen: the “predicate slot” type are stated to be “verb-like adjectives”, whereas the “copula complement” type are called “non-verb-like adjectives” (2004: 14). There are of course also a few examples of languages with both these features (e.g. Tariana, Arawakan), and also those that have neither (2004: 6, 14-15). Secondly, the feature of functioning as a modifier within a NP, which Dixon argues almost all members of the two types possess, is discussed as a “parameter of grammatical variation” (2004: 15). The two types found within this function are firstly, “noun-like adjectives”, in terms of their ability to “take some or all of the morphological processes that apply to a noun”, and secondly, “non-noun-like” adjectives, when “no morphological processes” applying to nouns hold also for adjectives (2004: 15). Depending on how the language in question functions, one of the two verb features and one of the two noun features are then combined: although all

combinations can be found, verb-like in combination with non-noun-like, and non-verb-like in combination with noun-like apply seem to be the to the majority of the languages of the worlds (2004: 15).

The problem thus seems to be to distinguish verb-like and noun-like adjectives from verbs and nouns, respectively, and this is exactly what Dixon aims at finding a method for: with examples from various languages, he presents criteria for this. To distinguish verbs from verb-like adjectives, Dixon suggests “different possibilities within the predicate slot ... transitivity possibilities ... as modifier within an NP ... in comparative constructions ... possibilities for forming adverbs” etc. For the noun distinction, it is instead “the internal syntax of NPs ... morphological possibilities ... comparative construction ... adverbial use” and so on (2004: 15, 22). Although many of these criteria are quite useful and every instance elucidates some kind of difference, a number of them are also fairly subtle (something that Dixon himself agrees to), and one might wonder if they suffice to classify items as belonging to an adjective category. “[T]here are always likely to be a few fuzzy areas between classes” is one of Dixon’s final conclusions, although he consistently maintains that a category of adjectives can be found in all languages.

2.5 Heine & Kuteva (2007)

In the previous section, it has become remarkable clear that scholars not only find it difficult to decide on what perspective to take on a possible adjective category. This seems to be difficult to the extent that changes of perspective often also occur. This far, however the approaches presented have been based solely on a synchronic perspective. It is now time for this to be challenged, and consider adjectives from a diachronic perspective.

When broadening the approach to the issue of adjectives, the process of grammaticalization can most advantageously be considered. As such, this concept can be explained as “the development from lexical to grammatical forms, and from grammatical to even more grammatical forms” (Heine & Kuteva 2007: 32). The focus here is consequently not only on new forms that arise, but on the entire development from one construction to another, and all the possible stages in between. The factors on which grammaticalization depend have been much discussed over time, but here, the approach of Heine & Kuteva (2007) will be applied, who state that “grammaticalization is based on the interaction of pragmatic, semantic, morphosyntactic, and phonetic factors” (2007: 34). In connection to this, Heine & Kuteva also suggest four “parameters of grammaticalization” (2007: 34):

- (12) a. *extension*
 b. *desemanticization* (“semantic bleaching”)
 c. *deategorialization*
 d. *erosion* (“phonetic reduction”)

The first parameter, *extension*, refers to the manner in which expressions, when used in a new context, can receive an additional meaning entirely new to them: their meaning is accordingly extended. Secondly, *desemanticization* is “an immediate consequence of extension” (2007: 39), but instead refers to loss of meaning within a certain expression, or “bleaching”, which happens when the expression in question instead acquires a more strictly grammatical function. The third parameter, *deategorialization*, refers to an item losing the properties specific for the category that it used to belong to. Finally, *erosion* is the loss of some phonetic feature, which can be an entire segment, stress, tone etc., or just consist of some kind of phonetic simplification. An example that illustrates all these processes is the development of an Old and Middle English verb *willan* ‘want’. First, it underwent extension in that it began to be used referring to irrealis events, i.e. events not associated with the present. Then, it lost its lexical meaning, i.e. desemanticization, and then it became an auxiliary, which is a sign of deategorialization. Finally, today erosion can be witnessed in forms such as *I’ll* for *I will*.

In examining the grammaticalization processes of adjectives, some of the typically adjectival, but also ambiguous features discussed above are found: Heine & Kuteva for instance state that “[n]ouns typically denote tangible and/or visible things that refer, while adjectives denote qualities relating to such conceptual domains as dimension...age...color...or value” (2007: 60). Again, we find Dixon’s core semantic types as accepted features internal to property expressions. From a grammaticalization perspective, these types become particularly interesting, since in quite a few languages, certain noun groups of a corresponding kind become grammaticalized into adjectives. Examples of such groups are “plants (or parts of plants), specific animals, and metals” (2007: 60). Such examples can further be found in English, where color expressions like *orange*, *bronze*, and *silver* clearly come from the noun of the fruit or metal in these cases (2007: 60). Taking into account the grammaticalization parameters, in this process we find desemanticization, in which all the meaning of the noun except that of the color disappears, and deategorialization, in the loss of morphosyntactic noun features. Across languages, we find that another group of this kind is that of “sex-specific human items such as ‘man’ and ‘woman’ or ‘father’ and ‘mother’”, which become expressions for referring to the property of either sex (2007: 60).

This can be seen in e.g. Swahili, where the words *mwana(m)ume* ‘man’ and *mwanamke* ‘woman’ become “desemanticized and decategorized in that their meaning is restricted to denoting the qualities “male” and “female”, respectively, and they occur in the syntactic slot reserved for adjectives” (2007: 60-61).

Heine & Kuteva also discuss the issue that is very much the center of this thesis: the actual varying status of adjectives in the languages of the world today. They state that in many languages, “[a]djectives tend to be closed-class categories”, because their number is “severely limited” as compared to nouns and verbs (2007: 61). Moreover, they refer to the very common use of stative verbs that tend to be used for expressing properties in many languages. An interesting example, namely that of the language Ik of northeastern Uganda, is presented: here, no apparent adjectives at all can be found, though “state verbs introduced with the relative clause marker *na*, PL *ni* can be viewed as weakly grammaticalized means of expressing recurrent distinctions of size, quality, etc.” (2007: 61). Nevertheless, a further distinction can also be found from ‘regular’ stative verbs: “verbs expressing “adjectival” notions relating to dimension, weight, age, or color take an optional plural suffix *-ak* when used as nominal attributes” (2007: 61). This is illustrated in the examples in (13) (Heine & Kuteva 2007: 61).

- (13) a. *bɪsa* *na* *kúɗ*
 spear.NOM REL.SG be.short
 ‘a short spear’
- b. *bís-* *ítíná* *ni* *kúɗa-* *ak*
 spear- PL.NOM REL.PL be.short- PL
 ‘short spears’

The significance of the optional plural suffix *-ak* is disputable. Dixon, in accordance with his argumentation described in an earlier section, would probably be inclined to give the group of stative verbs that this applies to a category of adjectives. On the continuum in Figure 1, it would most likely be placed close to the verb end, though not quite there. Heine & Kuteva, on the other hand, consider it “weakly grammaticalized”, though they do not comment on it further. Leaving it for now, we may consider it in a sort of ‘in between stage’, which we will return to later.

According to Heine & Kuteva, by examining the process of grammaticalization, following the four parameters described, a pattern of the evolutionary development of

categories can be also be sketched out; this is captured in Figure 3. It must, however, be interposed that this figure only illustrates some of the possible grammaticalization routes: transition from one category to another can happen also in many other ways: i.e., noun to adjective is not at all the only possible way for grammaticalization resulting in adjectives.

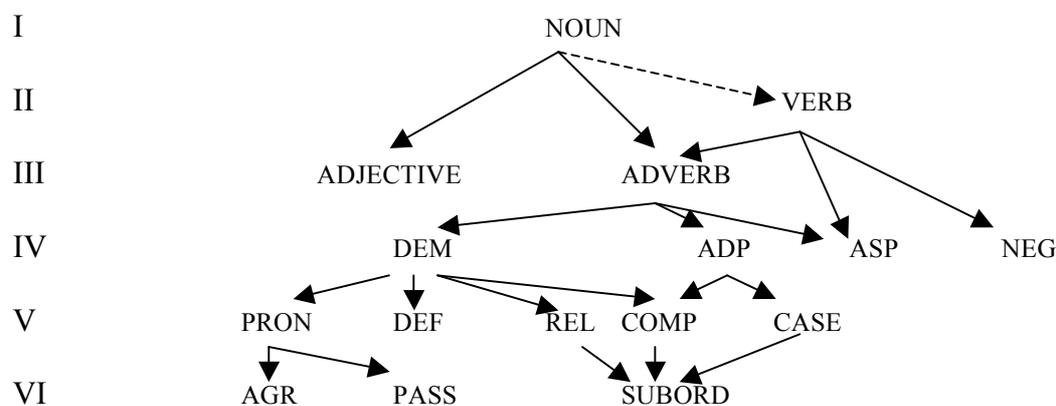


Figure 3. The layers of grammar as developing in language evolution according to Heine & Kuteva (2007: 111).

From the preceding discussion, the question may then be raised of possible grammaticalization patterns from verbs to adjectives, since this is not at all discussed by Heine & Kuteva (2007). Considering that verbs quite often turn into adjectives (e.g. the English participles *charming* and *interesting*) a grammaticalization pattern for this should be expected. Nevertheless, in case such as participles, a grammaticalization process hardly seems necessary, since differences between verbs and adjectives in this function can be argued to be extremely subtle: the change into an adjectival expression can be remarkably sudden seen from grammaticalization standards, as with the example of *charming*. This naturally depends to a great extent on the meaning of the expressions and kind of property referred to. One objection to the generalization made here could naturally be that this is something found primarily in Indo-European languages that use verbs in the participle form in a way similar to adjectives. The seemingly easy transition from verb to adjective may also be connected to the verbal encoding of property words that many languages appear to exhibit, and the distinctions that are sometimes too subtle to be properly emphasized.

2.6 Croft (2001, 2003)

Naturally, to distinguish adjectives from other lexical categories, it is necessary to have a more or less clear perspective of how to define such categories, and to know their status when

it comes to universality. Such a discussion has turned out to be a rather controversial issue over time, and the lack of consensus could also be argued to be a reason for the confusion on the identity of particular categories such as, in this case, adjectives. As opposed to a traditional view of lexical categories or ‘parts of speech’ as they have traditionally been called, there are also newer perspectives. In this section, one of these, namely that of Croft (2001), will be presented.

Traditionally, almost all languages have long been considered to exhibit three very basic lexical categories: nouns, verbs, and adjectives, which also often have been called universal categories. In Croft’s own words (2001: 63), this is manifested in two assumptions that he argues are often regarded a necessary foundation within syntax:

- (14) a. Noun, verb, and adjective are universal (cross-linguistic) categories found in particular languages
- b. But noun, verb, and adjective are not language universals—that is, not all languages possess the parts of speech noun, verb or adjective

The wording in (14) can seem quite confusing, especially since the two assumptions almost seem to contradict each other. However, it seems to be this contradiction that Croft aims at: traditionally, the three lexical categories are considered to be universal, but despite this fact, examples of languages that lack one or more of them do indeed appear. This is clearly contradictory, and this is what Croft is emphasizing. Instead of this, Croft proposes a quite opposite approach to this universality so commonly assumed when considering lexical categories of this kind. This is presented in (15)a-b below (2001: 63).

- (15) a. Noun, verb, and adjective are not categories of particular languages
- b. But noun, verb, and adjective are language universals—that is, there are typological prototypes...which should be called noun, verb, and adjective

To understand these stances, quite opposed from a traditional perspective, we must return to the issue mentioned in the beginning of this section of how categories can and should be determined. Following Croft, a “semantic class definition” that has long been considered “inadequate” is indeed so: properties can be found as nouns (*whiteness*) and actions as adjectives (*sleeping*) (2001: 63). Evidently, morphosyntactic features make this kind of

generalization in terms of semantic identity impossible. According to Croft, however, there has not been any useful method suggested as for how to do this instead (2001: 63):

It is merely assumed that morphosyntactic behavior of some sort will establish parts of speech in a particular language, and that we may label those parts of speech with the terms Noun, Verb, and Adjective in many if not all languages.

In generative grammar (e.g. Chomsky 1981 or Haegeman 1994 for a text book explanation), a system of binary features to define categories is employed, but as Croft points out, this does not provide any explanation as for how to distinguish between lexical categories in the first place (2001: 64). Accordingly, “it appears that there is no theoretically motivated set of criteria for establishing parts of speech in generative theory” (Croft 2001: 64). The discussion becomes even more problematic when performing cross-linguistic comparisons: when using quite separate criteria for establishing parts of speech in two languages, it seems impossible to find connections such as corresponding categories between them. The solutions employed today seem to fall into two major groups, it is argued; those who advocate the view that there are hardly any lexical categories at all; only one, or possibly at the most two categories (whom Croft calls “lumpers”) and those that argue that the majority of parts of speech are indeed present in every language (“splitters” according to Croft) (2001: 65). The problem of both these approaches, according to Croft, “is that parts of speech are not grammatical categories of particular languages”, as was stated in (15)a (2001: 65). As soon as this is accepted, it should be possible to find a plausible theory to distinguish lexical categories. Although the two approaches of ‘lumping’ and ‘splitting’ can be discussed in much more detail, this will be left for now (see Croft 2001 for further discussion). Nonetheless, the method of distributional analysis (i.e. analysis of the distribution of a potential category member) touching both upon lumping and splitting is what will be discussed next, since this is directly connected to the general discussion of adjectives. The significant properties of words that appear within distributional analysis are namely more or less ignored within ‘lumping’ approaches, whereas it seems to be to a too large extent emphasized method within ‘splitting’ approaches (2001: 76). From this follows that distributional analysis is not as useful a tool for categorizing parts of speech as many seem to argue. Croft accordingly claims that although distributional analysis has been used as a method that “will reveal parts of speech”, this is not what it actually does (2001: 83). Instead, distributional analysis, with all the exhaustive information that it provides, seems to make possible any number of classifications, in which it

is impossible to distinguish between lexical categories and other types of constructions. Although the purpose seems to be exactly to define certain lexical categories, the result is that this becomes very hard, since an analysis of every grammatical feature of a construction will make possible any number of distinctions (Croft 2001). This is what leads to the discarding of the described method when the aim is to distinguish lexical categories or parts of speech.

According to Croft, three features are of crucial importance within a theory of parts of speech that is to be cross-linguistically applicable. These for categorization necessary points are listed in (16)a-c (Croft 2001: 84).

- (16) a. a criterion for distinguishing parts of speech from other morphosyntactically defined subclasses
- b. a cross-linguistically valid and uniform set of formal grammatical criteria for evaluating the universality of the parts of speech distinctions
- c. a clear distinction between language universals and particular language facts

The other available (and previously discussed) approaches are quite clearly not conformable with (16)a, and (16)b follows from this assumption (Croft 2001: 84). It is nevertheless (16)c that may be regarded as most controversial, since the significance of this condition may be difficult to discern. However, according to Croft, “the failure to satisfy the first two conditions follows directly from not recognizing the importance of distinguishing language universals from language-particular facts” (2001: 85). It is therefore of immediate importance to consider why this condition is crucial to this extent, and to this, we now turn.

According to Croft, if we try to distinguish lexical categories in a certain language depending on the constructions found in that particular language, there is no possible way to distinguish exactly the same categories in a different language, because of the variety of ways in dealing with grammar that will be found across languages. The problem that seems to appear everywhere is that while scholars think that they make generalizations about (universal) lexical categories, the actual subject of their conclusions is instead *constructions*: “categories in a particular language are defined by the constructions of the language” - this can, on the other hand, *not* be applied to distinguish some sort of universal categories (Croft 2001: 85). It might seem a bold suggestion, but in this argumentation Croft is apt to the point concerning some of the problems mentioned earlier in this thesis: referring to the “brilliant study” of Stassen (1997), and to Wetzer (1996), it is stated that “[u]nfortunately, Stassen and Wetzer still refer to the semantic classes by syntactic category labels and use potentially

misleading terms like “nouny” and “verby” (2001: 84). Instead of this type of categorizing, Croft suggests a more general approach of universals, “which finds an antecedent in Dixon’s seminal study of adjectives” (2001: 86). This approach accordingly aims at being exactly general enough to apply universally (2001: 86):

Grammatical categories of particular languages are irreducibly language particular; in fact, they are also construction-specific. Instead, Universal Grammar is manifested in IMPLICATIONAL UNIVERSALS of the sort discovered by typology.

What can always be found from a universal perspective, Croft argues, is constructions for “predication, reference, and modification”, encoding “propositional acts”, which are necessary for language (the points in (2) in section 2.4, which Dixon considered crucial for language can appropriately be recalled here). In this, as we shall see, the fulfillment of condition (16)a can be found (and also, it may be argued (16)c), which separates lexical categories from other categories (2001: 87). In resemblance with Dixon’s semantic classes discussed above, Croft further argues that the “lexical items” that then fill the spots of predication, reference, and modification can be divided into semantic classes, and that certain “typological prototypes” can be found in each of these functions, namely actions, objects, and properties, respectively (2001: 87). It is furthermore argued that “[a] typological prototype category is a functionally defined category that is typologically unmarked with respect to the relevant constructions” (2001: 88). Here, typological markedness refers to how many morphemes are used, or reversed, an item is marked if “one or more morphemes are used to encode [its] function” (2001: 88). This also fulfills condition (16)b, in providing cross-linguistically valid criteria for defining parts of speech. Turning to Table 2, this view of categories is illustrated.

Table 2. “Overtly marked structural coding for parts of speech”, with fields of ‘properties’ and ‘modification’ highlighted (Croft 2001: 88)

	Reference	Modification	Predication
Objects	UNMARKED NOUNS	genitive, adjectivalizations, PPs on nouns	predicate nominals, copulas
Properties	deadjectival nouns	UNMARKED ADJECTIVES	predicate adjectives, copulas
Actions	action nominals, complements, infinitives, gerunds	participles, relative clauses	UNMARKED VERBS

The unmarked nouns, adjectives, and verbs referred to in Table 2 are then “typological prototypes” which appropriately can be named according to the classical parts of speech terms. These can be recognized by their lack of “structural coding”, which can be found in the other fields (e.g. relative clauses, copulas etc.) (2001: 66). Inflection, on the other hand, is not included within structural coding: this is instead considered to be within the “behavioral potential” that “a stem in a particular syntactic role” exhibits (2001: 66). In English, unmarked nouns, adjectives, and verbs can accordingly be exemplified as in (17)a, b, and c, respectively (2001: 89).

- (17) a. *I found the **ring**.*
 b. *The **big** cookie is hers.*
 c. *I **ate** it.*

To conclude a discussion that could have been much more extensive were there any space for this, a few of Croft’s points are of enormous significance, especially in this context. Firstly, the categories of nouns, verbs, and adjectives do not refer to “language-particular grammatical categories; they describe functional prototypes” (2001: 102-103). Secondly, prototypes, as such, refer to “the core of a category”; they cannot refer to any borderline cases (2001: 103). Universally holding, the only features that can be found are consequently these prototypes: “[b]oundaries are aspects of language-particular grammatical categories, determined by distributional analyses” (2001: 3). Here, we accordingly find the use of distributional analysis: it is intimately tied to the crucial realization that the language-

particular must, by all means, be separated from the universal. The relationship between these two can be summed up in a hypothesis postulated by Croft (2001: 103):

- (18) *Grammatical Category Structure Hypothesis*: the internal category structure of a grammatical category (e.g. a prototype point in conceptual space and links to its extensions) is provided by the universal theory of grammar, while its boundaries are provided by the particular language grammar.

The conceptual space referred to here has the structure of Table 2, but is more clearly illustrated as in Figure 4 below.

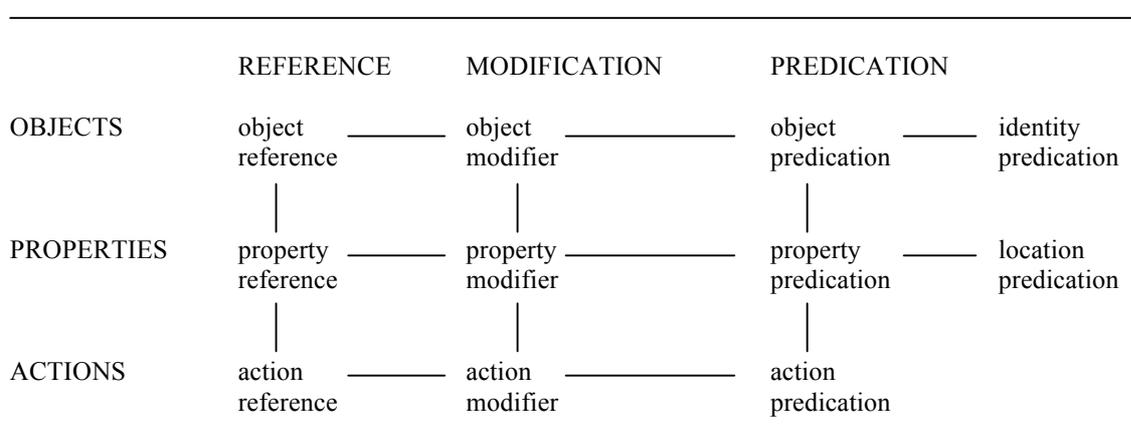


Figure 4. Conceptual space for parts of speech (Croft 2001: 92)

3. Evaluation of the theories

In the literature on adjectives, a majority of scholars seem to deal primarily with predicative adjectives (e.g. Stassen 2008 and Wetzler 1996 above). This can be considered natural, since the sometimes rather subtle differences between verbs and adjectives in many cases seem to be best studied within the constructions of predication. From a perspective where the aim is to make clear the identity of adjectives, it can nevertheless be argued to be quite peculiar to devote so much study to the predicative function, when the adjective category as such is in focus. The other function, i.e. the attributive one, is then entirely ignored, which can be considered most unprofitable. In this thesis, following the proposal of Croft (2001) the attributive function is considered to be the core quality of this type of property words, which makes its examination crucial.

The approach of Stassen (2008) dealing with predicative adjectives is very useful in many ways. Nevertheless, it does not really succeed in making clear the identity of adjectives, partly because it ignores the attributive function as described above. This should perhaps not be considered to be Stassen's goal in the first place, though it makes his argumentation of dividing 'adjectives' according to their verbal features somewhat questionable. The result is accordingly a means of distinguishing verbal and nonverbal items within the predicative function of property words. If this approach is consistently followed, adjectives must be accepted as being sometimes entirely identical to verbs, and still called adjectives, or at least 'adjectival'. Accordingly, the terminology here seems to become rather confusing, something that perhaps primarily depends on the lack of a definition of adjectives before stating the way in which they behave. Thus, the discussion seems to concern predication rather than property expressions (although there of course must be a connection). To conclude, although Stassen's criteria for distinguishing adjectives that are encoded in a verbal manner and those that are not work in an excellent way, this does not really satisfy the need of identifying a lexical category of adjectives. The remaining question thus seems to be why items that work entirely as verbs should be termed 'adjectives', and to this, there is no answer provided.

The framework that Wetzer (1996) uses to create a 'newer' and more realistic view of adjectives provides an interesting insight to the issue of categories in general, and adjectives in particular. From this perspective, the diversity found among property expressions can be explained. Still, to embrace this view we have to more or less accept that there is virtually no independent lexical category of adjectives whatsoever, something that, irrespective of the view taken on categories, may be hard to do without further ado. Although the continuum hypothesis may seem appealing in its ability to apply every little distinction found in a scale-like framework, all we really are left with is that adjectives are more ambiguous than ever.

In Dixon's works (1982, 2004), a wealth of useful information on adjectives appears, together with a very interesting turn of views from this scholar himself. The more adjectives are studied, the more ways to classify them can be invented, it seems, all of which are useful in their ways and emphasizing some significant feature of their ambiguous nature. It is however, the earlier work of Dixon (1982) that can be most fully embraced in this thesis: here, an excellent perspective of property expressions from a typological perspective is provided. The semantic classes that Dixon introduced here have been used in many works thereafter (e.g. Wetzer 1996, Croft 2001, 2004). Moving on to Dixon's later classification of adjectives (2004) as present in every language if only the correct criteria are applied, this is quite an opposition to e.g. Wetzer (1996). It seems hard to accept, however, that either the

lexical category of adjectives must be discarded entirely, or it can be found literally everywhere, based on a wealth of criteria, varying from language to language. The fact that these criteria cannot be used consistently across languages makes it very difficult to see how they could constitute a coherent test for a possible adjective category. Neither of these opposite views, it seems, satisfies the urge to make clear the identity of adjectives.

Diachronically, another perspective of a lexical category of adjectives can be found. Heine & Kuteva describe the grammaticalization route from noun to adjective in a very elucidatory manner. Still, they barely discuss any other possible routes, briefly mentioning a possible grammaticalization process from verb to adjective. Thus, we were left to ponder this transition independently, which resulted in a few speculations about the route from verb to adjective being too short to involve grammaticalization (e.g. in the case of participles etc.).

In all of the examined views, there accordingly seem to be some merits that could be further employed, and some points that must be questioned. The one that remains the strongest, it can be argued, is that of Croft (2001), in which we separate between typological prototypes on a universal level, and language-specific extensions and boundaries to other lexical categories. Such categories must be connected cross-linguistically also in terms of how they work semantically, which is something that Dixon (1999) also noted, as discussed in section 2.1. This approach will be employed further, and its applicability tested, in the empirical part of this thesis. Also in this approach, however, there are some things that remain unclear: considering the questionable status of adjectives, Croft states that: “adjectives are...less prominent as a typological prototype than nouns and verbs” (2001: 97). It may accordingly be considered odd that the spaces for *properties* and *modification* take up as much space as the other concepts in the conceptual space suggested by Croft: contrarily to Wetzter’s argument, this is not a continuum where prototypical adjectives can be found on different points on the continuum between nouns and verbs depending on the language. Croft calls modification “ a secondary propositional act which can aid to establish reference...or assert a secondary predication” (2003: 184-185). The question crucial for this thesis then remains unanswered, namely whether the prototypical adjective category is, in a universal sense, equal to prototypical nouns and verbs.

4. Empirical study of adjectives as a typological prototype

4.1 Goals of the study

So far in this thesis, a number of ways of viewing property expressions or adjectives, and what may characterize such classifications have been discussed. Two main opposed views have been presented: the one that considers adjectives too ambiguous a category to distinguish itself from nouns and verbs, and the view that adjectives can always be found, if only the correct criteria are taken into account. Following this, Croft's argumentation was described, and in this it became clear that a different perspective of lexical categories is needed: the variation found cross-linguistically depends on the many constructions that vary across languages. Such constructions cannot be considered as criteria to distinguish universal categories, but rather to define language-specific boundaries. Still, it is possible to discern linguistic universals, if we discard the traditional view of these. A different way of looking at universals has accordingly provided us with a framework that should enable us to again consider adjectives and their identity afresh. It is to the empirical study of this that we now turn, aiming at providing a set of criteria that can help us draw cross-linguistic as well as language-particular conclusions. According to Croft, as mentioned above, adjectives are not of the same status as nouns and verbs, because of their variation. Still, prototypically and extensionally, they do receive the same space and treatment, as do nouns and verbs in Croft's argumentation (see Table 2 above). It seems that their identity is not entirely discerned. In this study, however, Croft's view of typological prototypes, as well as their extensions, will be tested. By developing a set of criteria to test whether certain languages have prototypical adjectives, as well as their extended uses, it is also possible to test the status of a lexical category of adjectives.

4.2 Method

As stated, a set of criteria was designed to test prototypical adjectives as well as their extensional uses. To apply the chosen criteria to a number of languages, a questionnaire containing a number of sentences was designed, which can be found in Appendix 1. These sentences were then translated into around fifteen different languages, by native speakers, some of which were linguists, and some not. The glosses and grammatical analyses of the sentences were in part provided by the native speakers, and in part by the author, often after further elicitation. Based on this data, an analysis of possible adjectives could then take place.

4.2.1 Criteria

The chosen criteria were designed to discern adjectives as a typological prototype, its language-specific extensions, and possible language-specific category boundaries in the chosen languages. In Table 3, an earlier table is recaptured in combination with Figure 4, with numbers indicating connections to the criteria that follow below. For the sake of clarity, they are numbered, but this does not imply any kind of hierarchical nature. Instead, the criteria can be divided into two parts based on what they test: the first two were designed to test adjectives as typological prototypes, whereas the rest were designed for testing the possible extensions of these prototypical adjectives that particular languages show.

Table 3. Typological prototypes and their extensions recaptured with numbers indicating corresponding criteria.

	Reference	Modification	Predication
Objects	UNMARKED NOUNS	adjectivalizations 8	object predication
Properties	deadjectival nouns 7	UNMARKED ADJECTIVES 1, 2	3 4 predicate adjectives, copulas
Actions	action reference,	participles, relative clauses 5	UNMARKED VERBS

The criteria accordingly are as follows, with 1 and 2 referring to prototypical adjectives, and 3 to 8 to their possible extensions:

1. *Comparative/superlative construction*

The ability to be used in a comparative (or superlative) construction is considered to be a core property of prototypical adjectives. This is within the behavioral potential of the prototype and accordingly does not have to do with markedness. In this test, the comparative construction was chosen for the sake of simplicity, although superlative should also naturally work. The comparative construction can be encoded in two ways: morphologically (e.g. *larger* in English) or periphrastically (e.g. *more jealous*). If a comparative construction can be used also

with nouns or verbs, this should be constructed quite differently or really be a case of adjectives.

2. *Agreement/indexation with noun in attributive use*

This criterion refers to agreement with the noun that is being modified, in terms of its gender and number: this could be indicated on the adjective. In languages that have this feature, it is often described as one of the core properties of adjectives, and here it is taken as one of the two major indicators for prototypical adjectives. This type of agreement is an example of what Croft calls “non-personal indexation” (2003: 34), and is also within the behavioral potential of the prototype.

The two criteria above are accordingly the means chosen here to discern whether languages do have a prototypical adjective category. The following criteria were designed aiming at operationalizing the adjective prototype, in bring out the extensions of these prototypes, and are consequently of a more subtle nature, though they indeed can be used to make distinctions.

3. *Presence of a copula in the predicative function*

When a property or modification is predicated, the presence of a copula indicates that the prototypical category of adjectives has been extended to the field of ‘property predication’, see Table 3 above. The significance of this criterion can be seen e.g. in recalling Stassen’s (2008) use of this to separate ‘nonverbal’ from ‘verbal’ ‘adjectives’. However, this is not at all how it is applied here: this is a case of structural coding, i.e. a marked extension of adjectives.

4. *Difference between attributive and predicative use*

If there is a clear distinction between attributive and predicative use of an adjective, then there is also a clear distinction between ‘property modifier’ (attributive) and ‘property predication’ (predicative), see Table 3. If no such distinction can be observed, on the other hand, then there is no boundary between the two. The attributive use of adjectives belongs to the core of the prototypical category: predicative must be seen as an extension. If there is no way to separate the two, then there is accordingly no clear boundary between prototype and extension.

5. ***Participle / relativizer***

This criterion is of a slightly more complicated nature than the other ones, and perhaps not very widely applicable, though quite useful. If a *participle* of an action word can be used as a modifier, this shows an extension of prototypical adjectives to ‘action modifier’ (see Table 3). On the other hand, if this is not possible, another way to express this is through rephrasing, there are two options: If a *relativizer* becomes necessary in this rephrasing for ‘action modifiers’, but not for ‘property modifiers’, then there is a boundary between unmarked adjectives and action modifiers. If this is not the case, then no boundary can be identified.

6. ***Negation***

If the *negation* strategy for adjectives differs from that of nouns and verbs, then the boundaries to other fields in Table 3 will be clearer. Once again, Stassen’s (2008) employment of a negation criterion can be recalled, but the aim is different: we are not looking for ‘verbal’ or ‘nonverbal’ distinctions, but for the boundaries to other fields. This criterion, as we shall see, could be argued to be a complement to the third concerning the *copula*: this will be discussed in more detail in the analysis (see section 4.3).

7. ***Overt marking when used for reference***

When a property word is used for reference, and this is overtly marked, then the prototypical adjective category will have an extension to deadjectival nouns, marked in this manner for ‘property reference’. Such marking can consist of some feature reminiscent of nouns, e.g. an article or a certain derivational morpheme etc.

8. ***Denominalized modification***

When a nominal expression is used as a modifier, it can either be used in its original form, or in a *denominalized* form. The latter could also be called ‘adjectivalization’, and if this is used, there is an extension from prototypical adjectives to ‘object modification’. This can be seen in derivational suffixes used for adjectives etc.

These criteria are summarized in Table 4, with accompanying examples of languages where each of them is fulfilled.

Table 4. Summarized criteria with examples of their presence in different languages.

#	Testing criteria	Distinction from V or/and N	Example
TESTING ADJECTIVES AS A TYPOLOGICAL PROTOTYPE			
1	comparative (or superlative) a) morphologically b) periphrastically	core property of A, not possible for V and N (or expressed differently)	<i>Dogs are larg-er than cats.</i> large-COMP <i>Cats are more jealous than dogs.</i> (English)
2	agreement with gender/number in attributive use	”nonpersonal indexation” as a core property of A, not of V	<i>den lycklig-e man-nen</i> ART happy-M man-DEF ‘the happy man’ <i>de vänlig-a människ-or-na</i> ART kind-PL people-PL-DEF ‘the kind people’ (Swedish)
TESTING EXTENSIONS OF ADJECTIVES			
3	copula in predicative use	obligatory copula for A, not for V	<i>Der Hund ist schwarz.</i> ART dog be.COP black ‘The dog is black’ (German)
4	necessary difference in attributive and predicative use	word order or other explicit difference	<i>The black dog</i> <i>The dog is black</i> (English)
5	participle as action modifier or relativizer for actions, not for properties	different for A from V	<i>maew2 naa2-rak3 juu1 thii-nuun2</i> cat cute exist over there ‘The cute cat is over there.’ <i>maa2 thii2 lap1 juu1 thii-nuun2</i> dog REL sleep exist over there ‘the sleeping dog is over there’ (Thai)
6	predicate negation	different from A, from V and N	<i>kos-mu-yor-sun</i> run-NEG-CONT-SG ‘You are not running’ <i>sen zengin degil-sin</i> you rich NEG.COP-2SG ‘You are not rich’ (Turkish) ¹
7	overt marking when used for reference	different from basic N, or takes on N properties (definite marking)	<i>the young</i> (English)
8	denominalized modification	different forms for denominalized and nominal modifiers	<i>Chinese food</i> <i>*China food</i> (English)

4.2.2 Language sample

The languages were chosen for the purpose of obtaining the broadest perspective possible in this small a sample: fifteen languages (counting English as well) were included. Comparing this to Dixon’s study (1982) of seventeen languages, it is perhaps not so small a sample after

¹ From Wetzer (1996: 151), somewhat simplified here due to the font.

all, of a study of this size. The languages of this study, and their corresponding language family, are listed in (19).²

- (19) a. **Indo-European:**
- i. *Germanic*: German (West Germanic), Swedish (North Germanic)
 - ii. *Romance*: French, Romanian
 - iii. *Slavic*: Bulgarian (South Slavic), Russian (East Slavic)
 - iv. *Baltic*: Lithuanian
 - v. *Iranian*: Persian
- b. **Afro-Asiatic:**
- i. *Semitic*: Arabic
- c. **Sino-Tibetan:**
- i. Mandarin Chinese
- d. **Tai-Kadai:**
- i. Thai
- e. **Austronesian**
- i. Seediq
- f. **Austro-Asiatic**
- i. *Mhon-Khmer*: Kammú
- g. **Japanese:**³
- i. Japanese

The Indo-European languages may be a little over-represented here; two reasons can be found for this. Firstly, the choice of languages was partly based on the availability of native speakers. Secondly, one aim here is to capture the most differences possible that can be discerned also among the Indo-European languages.⁴

² Family classifications are taken from WALS Online and Gordon (2005).

³ Some would consider this Altaic, but that is not the classification in the sources used here.

⁴ The aim was to also include a Finno-Ugric language, though unfortunately, this was not possible.

4.2.3 Hypotheses

Following to the division of two types of criteria, the first type concerned with a typological prototype of the adjective category, and the second with its possible extensions, two hypotheses will also be put forth about what this study will show. Starting with the typological prototype level, this hypothesis can be found in (I).

- (I) *All languages in this study will fulfill one or both of criteria number 1 (comparative construction) and 2 (agreement with noun in attributive use).*

When we have the means to distinguish the typological prototype of adjectives, it is possible to continue to examine what extensions of this are present in different languages, and how these features vary cross-linguistically. In doing this, a second hypothesis is suggested in (II).

- (II) *The languages in the sample will show clear differences in how many of criteria 3-8 that they fulfill. The more of these criteria that they fulfill, the more extended an adjective category they will have.*

With these hypotheses postulated, we are now equipped to continue to an analysis of the languages through the criteria.

4.3 Analysis

4.3.1 Criteria 1 & 2

The cross-linguistically most applicable criterion - this is overwhelmingly clear in the data - is the comparative construction. Some languages have both a morphological and a periphrastic construction depending on the adjective type, whereas others one or the other. This alternation must naturally be considered to be language-specific. To illustrate this, some examples of the varying comparative uses are presented in (20), i.e. both morphological and periphrastic comparative forms from English in (20)a, morphological form only from German(20)b, and periphrastic form only from French in (20)c.

- (20) a. English (both morph. and periphr.)
*Dogs are **larger** than cats.*
*Cats are **more jealous** than dogs.*

b. German (morph. only)

Katze sind eifersüchtig-er als Hund-e
 cat.PL be.PL.COP jealous-COMP than dog-PL
 ‘Cats are more jealous than dogs’

c. French (periphr. only)

Des chien-s sont plus grand-s que des chat-s
 ART.PL dog-PL be.PL more big-M.PL than ART.PL cat-PL
 ‘Dogs are larger than cats’

The periphrastic construction is much more common than the morphological one: whereas eleven languages use periphrasis, only six use morphology, though among these, three languages have both. Cases with comparatives for nouns and verbs are also of relevance here for contrastive purposes. Examples of this in English are given in (21)a for a comparative form of a verb, and (21)b for a comparative form of a noun.

- (21) a. *Cats sleep more than dogs.*
 b. *Dogs are more friends than pets.*

In the verb construction in (21)a, there is a clear difference from the adjectives constructions in (20)a; *sleep more* versus *are larger* or *are more jealous*. The example of a comparative noun is slightly harder to distinguish: *are more friends* can at least on the surface be interpreted just like *are more jealous*. A morphological comparative would not work unless the adjective way is chosen: *Dogs are friendlier than other pets* could perhaps be argued to be a ‘correct’ way of putting this message. This is, however, a different type of comparative construction: a corresponding one for an adjective would instead be e.g. *This dog is more brown than white* (e.g. commented on a white dog that has been for muddy walk), i.e. not comparing it another referent. This is reflected in the way that languages deal with this type of sentence.

- (22) ‘Dogs are more friends than pets.’

a. French

Des chiens sont plus comme des amis que des animaux de compagnie.
 a.PL dogs are more like a.PL friends than a.PL pet.PL

b. Japanese

Inu-wapetto-to-iu-yori-wa tomodachi-desu.

dog-FOC pet-as-say-more.than friend-COP

c. Mandarin Chinese

gou bu zhi shi chongwu, geng shi pengyou

dog NEG only be pet, even.more be friend

‘A dog is not only a pet, but even more a friend.’

In (22)a, the French word *comme* ‘like’ is the crucial difference: this is also the case with other language (e.g. in Swedish: *Hundar är mer som vänner än husdjur*). In the Japanese example (22)b, the expression must be rephrased. This is also the case with Mandarin Chinese, see (22)c, where the rephrasing leads to a slight difference in meaning which is given in the example. In many of the studied languages, such as Arabic, Persian, Seediq etc. the sentence was also declared untranslatable. Accordingly, the comparative adjective construction is fairly easy to distinguish from those of nouns and verbs. There is one exception to this though, namely the case of Arabic, which is presented in

(23) Arabic

a. *Al-kilab akbar min al-kitat.*

DET-dogs bigger than DET-cats

‘Dogs are larger than cats.’

b. *Al-kitat akthar ghiratan min al-kilab.*

DET-cats more jealousy than DET-dogs

‘Cats are more jealous than dogs.’

c. *Al-kitat tanam akthar min al-kilab.*

DET-cats sleep more than DET-dogs

‘Cats sleep more than dogs.’

d. *Sharuha kan akthar sawadan min al-layl*

her.hair was more blackness than DET-night

‘Her hair was blacker than the night.’

In the case of Arabic, it is difficult to draw any strong conclusions without further knowledge of its grammar. It seems, however, that the comparative construction is more similar in the examples in (23) than with corresponding translation of any other language in this study: there is of course the use of *akbar* in (23)a as compared to *akthar* in the rest of the examples, that

could indicate a difference in the comparative forms. In (23)c, a difference in word order can be observed, with the verb *tanam* ‘sleep’ before the comparative expression: this may be a difference in comparative forms of adjectives and verbs. It is also interesting to observe the nouns that are used where e.g. English uses adjectives, i.e. *ghiratan* ‘jealousy’ and *sawadan* ‘blackness’. With this, the comparative criterion will nevertheless be left, turning to the analysis of the next criteria.

The criterion of agreement with the modified noun when it comes to number, gender, and case in attributive use shows a fairly predictable applicability when it comes to languages families: this type of agreement can be observed in many Indo-European languages, and only in one language outside this family, namely Arabic. The degree to which this is exhibited differs, on the other hand, which is illustrated in (24).

(24) a. Romanian

Bărbatul fericit și femeia înțeleaptă sunt acolo.
 man.the happy.M.SG and woman.the wise.F.SG are there

b. Swedish

den lycklige mann-en och den intelligent-a kvinna-n är där borta.
 ART happy-M man-DEF and ART clever-F woman-DEF are over.there
 ‘The happy man and the clever woman are over there.’

c. Swedish

De gaml-a och vänlig-a människ-or-na är där borta.
 ART old-PL and kind-PL people-PL-DEF are over.there
 ‘The old and kind people are over there.’

d. Arabic

Al-kalb al-jayed / al-jayed-eh hunalik
 DET.dog DET-good.M DET-good-F over.there
 ‘The good (male / female) dog is over there.’

e. German

Der brav-e Hund ist dort hinten.
 ART.M good-NOM dog.M is there back
 ‘The good dog is over there’.

In (24)a, it is illustrated how Romanian has agreement on the adjectives ‘happy’ and ‘clever’ both in terms of number and gender (both natural and grammatical, it could be argued). In (24)b, an example of Swedish, with agreement only in terms of natural gender is illustrated, with the word for ‘happy’ ending in *-e*, since it modifies the noun ‘man’, and the expression

for ‘clever’ ending in *-a* in the same way for ‘woman’. In (24)c, another example of Swedish is given, with the adjectives agreeing in number only. In the example of Arabic in (24)d, there are two options of agreement, depending on the sex of the dog in question. Finally, in German in (24)e, an example of agreement in terms of case is found. This is perhaps not so clear due to it being nominative case, but it is still a sign of agreement. As a contrast, an example of a language that does not have the agreement is given in (25).

- (25) Persian
Sag khoob-e oonja ast.
 dog good-DEF there is
 ‘The good dog is over there’

In Persian, there is accordingly no agreement of this kind, as can be seen in (25). English is also an excellent example of a language that does not have this feature.

To summarize, in this section applications of the first two criteria have been carried out in order to make clear how they are fulfilled. In the next section, we accordingly move on from the criteria for typological prototypes of adjectives to their extensions.

4.3.2 Criteria 3 - 8

The third criterion, concerning the presence of a copula in the predicative form is one of those that apply to least number of languages: it is found only in the Indo-European languages, with the exception of Russian. Examples of presence of copula in Bulgarian, and Russian and Japanese without are given in (26)a, b, and c, respectively.

- (26) a. Bulgarian (cop. in pred. use)
Kuche-to e byal-o.
 dog-DEF.NEUTR **be.PRS.COP** white-NEUTR
 ‘The dog is white.’
- b. Russian
Sobaka belaya.
 dog white.fem
 ‘The dog is white.’
- c. Japanese (no cop. in pred. use)

Inu-wa shiroi.
 dog-FOC white
 ‘The dog is white.’

In (26)a the Bulgarian copula *e* is captured. Nothing like this can be found in the examples of Russian and Japanese in (26)b-c.

The fourth criteria, i.e. that there is a difference between the attributive and predicative form of an adjective, or in other words, that these two forms look different, has a more uneven applicability among the languages. Only three languages do not distinguish between attributive and predicative form: Arabic, Thai, and Kammú. Starting with those that do have two separate forms, it is easy to picture how this is done in those that have a copula as in (27)a. An example of how these forms can be differentiated when there is no copula is given in (27)b.

- (27) a. Lithuanian
Šuo yra baltas ir švelnus.
 dog is white and soft
 ‘The dog is white and soft.’
Gerasis šuo yra štai ten.
 good dog is here there
 ‘The good dog is over there’
- b. Russian
Sobaka belaya i myagkaya.
 dog white.F and soft.F
 ‘The dog is white and soft’
Eta umnaya koska – tam
 this clever.F cat.F there

In the Lithuanian example in (27)a, the copula and the word order make difference clear: in Russian ((27)b), however, the word order seems to be the sole deciding factor. Turning to examples of languages that do not make any distinction at all, these are given in (28).

- (28) Thai
maa2 tua0 nim3-nim4.
 dog CLASS soft-soft
 ‘The dog is white.’ or ‘the white dog’
maa2 du1
 dog bad
 ‘the bad dog or ‘The dog is bad.’

In Thai, there is no necessary difference between attributive and predicative forms. Considering the examples given in (28), the boundaries in Thai (and the languages that function similarly, e.g. Kammú) seem to be very shady. There is, as we shall see, nevertheless more criteria to apply to this particular discussion.

The fifth criterion is of a somewhat more complicated nature, since it identifies in the first place a participle, and if that cannot be found, a difference in the presence of a relativizer when a property versus an action word is used for modification. Those languages where neither of these features could be identified, or where this was too unclear due to problems with interpreting the glossing have here been excluded, for the sake of clarity. Starting with the use of a participle as modifier, this is well-known due to its use in English etc, which is exemplified in (29).

- (29) *The **sleeping** children are over there by the **dining** people.*

Participles such as *sleeping* and *eating* can accordingly be found in many other of the Indo-European languages, but there is often a slight difference and preference for the relativizer as well, as illustrated in the example of German in (30).

- (30) German
 a. *Die schlafenden Kinder liegen dort hinten bei den*
 ART.PL sleeping.NOM child.PL lie.PL there over by ART.DAT
essenden Leuten.
 eating.DAT people

- b. *Die schlafenden Kinder liegen dort hinten bei den
 Leuten, die gerade essen.*
 ART.PL sleeping.NOM child.PL lie.PL there over by ART.DAT
 people.PL RPRN just eat.PL
 ‘The sleeping children are over there by the eating people’

Both (30)a and b are translations of the English sentence in (29), but whereas the first one is the most literal one, and a quite possible phrasing, the second alternative was indicated by the informant to be a much better alternative to express this. This is also the case in Swedish, and can be connected to the semantic nature of the two action words: *sleeping*, which is a stative verb, and *eating* which is more dynamic. The state of sleeping can then be argued to be more property-like, and perhaps even in English, *sleeping* could perhaps be argued to be more acceptable as a participle than is *eating*. This could naturally also depend on whether the examples are used in spoken or written language etc. Returning to the criterion, however, let us now proceed to those languages that do not have the participle modifier. First of all, the example of French can be considered.

(31) French

- a. *Les enfants qui dormant sont là-bas près des gens en déjeunant.*
 ART.PL child.PL REL sleep.PL are over.there near.ART.PL people in eating
 ‘The sleeping children are over there by the eating people.’
- b. *Les gens vieux et gentils sont là-bas*
 ART.PL people old.M.PL and kind.M.PL are over.there
 ‘The old and kind people are over there’

In (31)a, there is no participle for ‘sleeping’: instead there is a relativizer and a verb in the present tense (the case of ‘dining’ instead is a verbal noun, but this will not be discussed further here). However, in (31)b the attributive form in French makes it clear that there is no need to compare action modifiers to property modifiers: there is already a boundary between them. Turning to a language in which the latter part of this criterion becomes relevant, the example of how Thai deals with this is presented in (32).

- (32) Thai
- a. *maew2 naa2-rak3 juu1 thii2-nuun2*
 cat cute exist there
 ‘The cute cat is over there.’
- b. *maa2 **thii2** lap1 juu1 thii2-nuun2*
 dog REL sleep exist there
 ‘The sleeping dog is over there’

The difference between (32)a and b is clear: in (32)b, there is a relativizer *thii2*, which is absent in (32)a. Here, a boundary between property modifiers and action modifiers becomes clear, which was not distinguishable in any other way. It should also be pointed out that the relativizer *thii2* can be used also for property modifiers, or as we may conclude, prototypical adjectives, but with a different meaning as a result: when used for adjectives, it receives a restrictive meaning, i.e. that stresses identity: ‘the cat that is cute, and not any other cat, is over there’ would be the meaning of (32)a if the relativizer was added. Interestingly enough, exactly the same pattern is found in Kammú, and it can accordingly be concluded that in these two languages, a boundary between adjectives as property modifiers and verbs as action modifiers can be identified through this criterion.

The next criterion to be applied is the *negation criterion* (number 6). Most of the languages of the sample show no clear difference in negation for prototypical nouns, verbs, and adjectives: in those languages with a copula, this is managed with a negation marker and a verb, be it a main verb or a copula. This is illustrated in (33) for Romanian.

- (33) Romanian
- a. *Câine-le nu este un animal de casa; e un prieten*
 dog-DEF not is a pet is a friend
 ‘The dog is not a pet; it is a friend’
- b. *Câine-le nu doarme; este treaz*
 dog-DEF not sleepis awake.M.SG
 ‘The dog does not sleep; it is awake’
- c. *Câine-le nu este rapid; este încet*
 dog-DEF not is fast.M.SG is slow.M.SG
 ‘The dog is not fast; it is slow’

In Romanian, the negation marker *nu* is accordingly used in combination with a main verb or copula, whether it is a noun, verb, or adjective that is negated. Interestingly enough, there are languages that show virtually the same negation pattern, but that has an alternative way of negating nouns, e.g. Swedish in (34).

(34) Swedish

- a. *Hunden är inget husdjur; den är en vän.*
 dog-DEF is PRN.INDF.N pet it is a friend

Although it is possible to use the regular negation *inte* ‘not’, the indefinite pronoun *inget* is much more natural in this context. Also in German, the indefinite pronoun *kein* is used in this case, and in English the corresponding *no* could also be used, though perhaps in the latter it is more a matter of taste which expression is used. Moving on to larger differences in negation, no language within the sample of this study displays a three-way difference with varying negation for nouns, verbs, and adjectives. There are, however, those that show a different verbal negation, e.g. Mandarin Chinese in (35).

(35) Mandarin Chinese

- a. *nei-zhi gou bu kuai, ta hen man.*
 that-CLF dog NEG fast, 3SG very slow
 ‘The dog is not fast, it is slow.’
- b. *zhe-zhi gou bu shi chongwu, shi pengyou.*
 this-CLF dog NEG be pet be friend
 ‘The dog is not a pet, it is a friend.’
- c. *nei-zhi gou meiyou zai shuijiao, ta xing-zhe.*
 that-CLF dog NEG LOC sleep 3SG awake-PROG
 ‘The dog is not sleeping, it is awake.’

In (35)a and b, the negation marker is the same (*bu*), in (35)c, it is different (*meiyou*). Judging from this data, it is possible to conclude that the boundary between action predication and property predication is sharper than that between object predication and property predication. A similar difference can be found in Seediq, as presented in (36).

- (36) Seediq
- a. *uxe camac ka huling, dangi heya.*
 NEG wild.animal NOM dog friend 3SG
 ‘The dog is not a wild animal, it’s a friend.’
- b. *ini taqi ka huling.*
 NEG sleep NOM dog
 ‘The dog is not sleeping.’

In (36)a, the marker *uxe* is used for negating the noun *camac* ‘wild animal’, whereas in (36)b, the marker *ini* is found for the verb *taqi* ‘sleep’. In other languages, e.g. Thai, differences in the use of aspect in negation of verbs can be an indicator of a boundary. Nevertheless, concluding that this criterion is not quite as applicable as the other ones, at least not in this sample, we will now move on to the next criterion.

The seventh criterion is concerned with *marked reference*, i.e. when a property is used for reference, it should be marked in a way that indicates that it is nominalized. This is illustrated in the example of Romanian in (37).

- (37) Romanian
- a. *Tinerii din ziua de astăzi sunt neliniștiți.*
 Young.the today are restless.M.PL
 ‘The young today are restless.’
- b. *Asemănarea dintre cei doi câini este uimitoare.*
 Similarity.the between the two dogs is striking.F.SG
 ‘The similarity between the two dogs is striking’

Both in (37)a and b, the property references are marked with what in English corresponds to ‘the’. Here, it is shown how the prototypical adjective category in Romanian has been extended to property reference. If this is contrasted to Seediq, the following is found:

- (38) Seediq
- a. *ini kela msange ka laqi hndure*
 NEG know rest NR child nowadays
 ‘Young people of today don’t know how to rest.’
- b. *mntena hari ka daha huling*
 similar rather NR two dogs
 ‘The similarity between the two dogs is striking’.

Here, it seems that there cannot be any overt marking for reference; instead, the result is a different phrasing.

Finally, there is the eighth and last criterion, namely that of *denominalized modification*. Here, if a noun is used for modification, it should be marked as a modifier, or ‘adjectivalized’, it may be called. This can be seen in the example of Bulgarian in (39) below.

(39) Bulgarian

- a. *Kanadsk-a-ta gaska e vid kanadsk-a ptitsa.*
 Canadian-F-DEF goose.F is type Canadian-F bird.F
 ‘The Canada goose is a type of Canadian bird.’
- b. *Obicham kitaysk-a hrana.*
 love-1SG.PRS Chinese-F food.F
 ‘I like Chinese food’

In Bulgarian, we accordingly find that object modifiers ‘Canadian’ and ‘Chinese’ are marked as modifiers, just as in English (i.e. not ‘Canada’ and ‘China’. Exactly the opposite can be observed in e.g. Thai, as can be seen in

(40) Thai

- a. *chan3 chOOp2 a0haan4 jiin0.*
 I like food China
 ‘I like Chinese food.’
- b. *chan3 sUU3 khaInom4-paang0 fa3rang1saet1*
 I buy bread France
 ‘I bought some French bread.’

4.4 Results

Now that the criteria have been demonstrated and applied, it is possible to examine the overall results of the languages in this study. The fulfillment of the criteria can accordingly be summarized as in Table 5.

Table 5. Fulfillment of criteria in the languages of the study. ‘x’ = criteria fulfilled, (x) = criteria partly fulfilled, ? = not clear whether criteria is fulfilled, P = participle, and R = relativizer.

Criteria #	1		2	3	4	5	6	7	8
	a morph.	b periphr.	N agr.	cop.	pred. - attr.	part. / rel.	neg.	marked ref.	denom. mod.
English	x	x		x	x	P		x	x
German	x		x	x	x	P, (R)	(x)	x	x
Swedish	x	x	x	x	x	P, (R)	(x)	x	x
French		x	x	x	x	P, R		x	x
Romanian		x	x	x	x	R, (P)		x	x
Bulgarian		x	x	x	x	P		x	x
Russian	x	?	x		x	P, R		(x)	x
Lithuanian	x	x	x	x	x	P	(x)	x	x
Persian	x			x	x	-		x	x
Arabic	?	?	x		?	?		x	x
Mandarin		x			x	-	(x)		
Thai		x				R	(x)	x	
Kammú		x				R		x	?
Japanese		x			x	-	(x)		x
Seediq		x			x	-	(x)		

From Table 5, it can be concluded that in terms of the first two criteria, all languages fulfill at least one of these, and many have both. The different distribution of morphological versus periphrastic comparative forms is of no consequence when considering the prototypical adjective category: this is must instead be considered to be language-specific, and is illustrated only to capture the variation there is in this context. Turning back to prototypicality, the results from the first two criteria accordingly support the first hypothesis (see (I)): all languages within this study do either one of criteria 1 and 2, or both of them. The results are accordingly clearly indicating a prototypical adjective category in these languages. This result seems undisputable, and is thus possible to move on to consider the results of the other criteria, connected to language-specific boundaries.

According to which of criteria 3-5 are fulfilled in the languages, it seems possible to divide them into types, based on exactly which criteria that they fulfill. Starting with the Indo-European languages, it is now possible, based on the fulfilled criteria, to consider the extensions of the prototypical adjective category in these languages. Interestingly enough, when this is done, all the Indo-European languages except Russian can be captured in the same figure, Figure 5.

	Reference	Modification	Predication
Objects	object reference	adjectivalizations	object predication
Properties	deadjectival nouns	UNMARKED A comp & / N agreem	predicate adjectives, copulas
Actions	action reference	participles, relative clauses	action predication

Figure 5. The extension of the prototypical adjective category (indicated with arrows) in English, German, Swedish, French, Romanian, Bulgarian, Lithuanian, and Persian. The dotted marking indicates an area in which, in some of the languages (e.g. English), no boundary can be found.

To exemplify the core adjective category and its extension illustrated in Figure 5, a few examples are given in (41) and (42).

(41) a. comparative, English:
*Dogs are **larger** than cats.*

b. N agreement, German:
*der **brave** Hund*
the.M **good.NOM** dog
'the good dog'

(42) a. extension to predicate adjectives/copulas, Swedish:
*Hunden **är** snäll.*
dog.DEF **be.PRS.COP** good
'The dog is good'

b. extension to participles/relative clauses (and no clear boundary), French:
un chien vivant
a.M dog living.M.SG
'a living dog'

c. extension to deadjectival nouns, Romanian:
***Tinerii** din ziua de astăzi sunt neliniștiți.*
Young.the today are restless.M.PL
'The young today are restless.'

d. extension to adjectivalizations, Bulgarian:

Obicham kitaysk-a hrana.

love-1SG.PRS Chinese-F food.F

‘I like Chinese food’

The criterion that separates Russian from the rest Indo-European languages in terms of extensions is the copula criterion (number 3). Accordingly the extensions for Russian are illustrated in Figure 6.

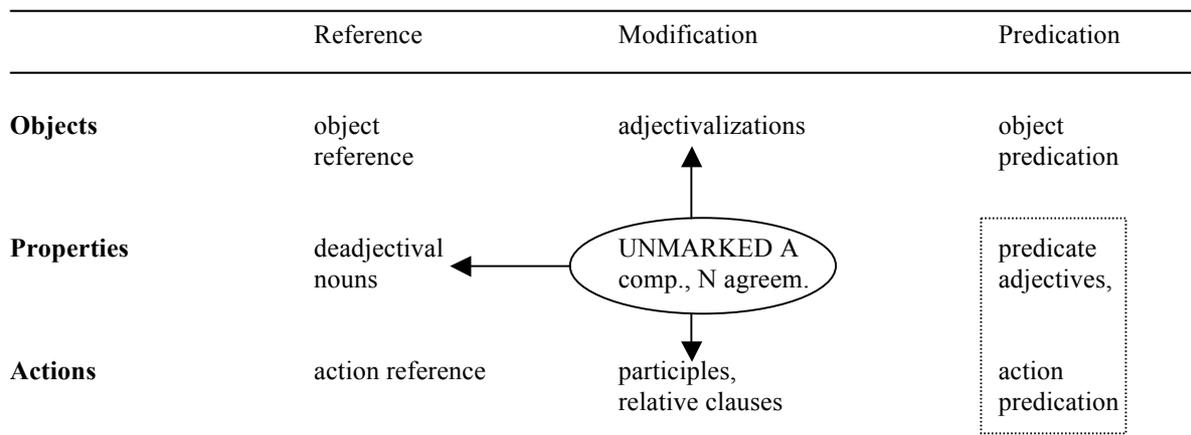


Figure 6. The extensions of the prototypical adjective category in Russian.

The lack of a copula also makes it difficult to separate predicate adjectives from action predication, which is illustrated in (43).

(43) Russian

a. predicate adjective

Sobaka belaya i myagkaya.

dog.F white.F and soft.F

‘The dog is white and soft.’

b. action predication

Sobaka spit, a koshka est.

Dog sleeps and cat.F eats

‘The dog is sleeping and the cat is eating.’

The next type considering extensions that can be discerned also holds for only one language, namely Arabic, which is illustrated in Figure 7.

	Reference	Modification	Predication
Objects	object reference	adjectivalizations	object predication
Properties	deadjectival nouns	UNMARKED A N agreement (comp?)	property predication
Actions	action reference	participles, relative clauses	action predication

Figure 7. Prototypical adjective category and its extensions in Arabic, with area where boundaries are unclear indicated by the dotted marking.

In the figure of Arabic, dotted line marks an area where there possibly are not any boundaries: the data for this study is, however, not sufficient to make a strong claim about this. The same should be pointed out concerning the possible comparative form: since in the data analysis above, there was no clear difference between this type of comparative and that of nouns and verbs, this is only a speculation. The agreement with the modified noun still makes the prototypical category easy to identify, as illustrated in (44).

- (44) Arabic
- | | |
|-------------------------|---------------|
| <i>kelb-eh</i> | <i>hay-eh</i> |
| dog.F.DET | alive.F |
| ‘a living (female) dog’ | |

The extension identified for prototypical adjectives in Arabic is illustrated in (45).

- (45) adjectivalization, Arabic
- | | | | |
|-----------------------|--------------|---------------|----------------|
| <i>Ana</i> | <i>uhibu</i> | <i>al-akl</i> | <i>al-sini</i> |
| I | like | DET.food | DET.chinese |
| ‘I like Chinese food’ | | | |

The next type found is also the only of its kind within this study, namely Japanese, which is illustrated in Figure 8.

	Reference	Modification	Predication
Objects	object reference	adjectivalizations	object predication
Properties	property reference	UNMARKED A comp.	predicate adjectives
Actions	action reference	action modifier	action predication

Figure 8. Prototypical adjective category, extension, and boundary in Japanese.

The extension to adjectivalization in Japanese and the boundary to predicate adjectives are illustrated in (46).

(46) Japanese

a. adjectivalization

Watashi-wa chyuka-ryouri-ga suki-desu.
 I-FOC Chinese-food-TOP f avourite-COP
 ‘I like Chinese food.’

b. boundary to predicate adjectives

Inu-wa shiroku-te ke-ga yawarakai.
 dog-FOC white-CONJ hair-TOP soft
 ‘The dog is white and soft.’

Ii-inu-wa mukou-ni ir-u.
 good-dog-FOC there-in exist-PRS
 ‘The good dog is over there.’

Seediq and Mandarin Chinese constitute the next type. This is illustrated in Figure 9 below.

	Reference	Modification	Predication
Objects	object reference	object modifier	object predication
Properties	property reference	UNMARKED A periphr. comp.	predicate adjectives
Actions	action reference	action modifier	action predication

Figure 9. Prototypical adjective category and boundary in Mandarin Chinese and Seediq.

The boundary to predicate adjectives can be exemplified through Mandarin Chinese as in (47).

(47) Mandarin Chinese

nei-zhi gou shi bai-de, erqie mo-qilai ruanruan-de
 that-CLF dog be white-ATTR, moreover touch-INCH soft-ATTR

‘That dog is white, and when you touch it, soft.’

nei-zhi hao-gou zai ner.

that-CLF good-dog LOC there

‘The good dog is over there.’

Finally, two languages are left, namely Kammú and Thai, which also can be illustrated together as in Figure 10.

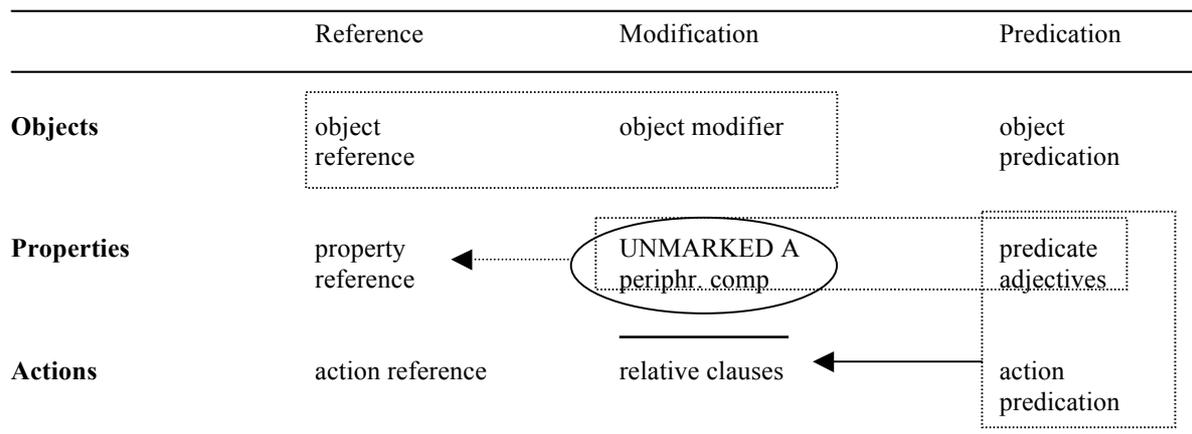


Figure 10. Prototypical adjective category, extensions, boundary, and areas that lack boundaries in Kammu and Thai.

A few more examples are needed to illustrate this than the previous types. Firstly, the relativizer discussed above, can be recalled, as in example (48).

- (48) Thai
- maew2 naa2-rak3 juu1 thii2-nuun2*
 cat cute exist there
 ‘The cute cat is over there.’
- maa2 thii2 lap1 juu1 thii2-nuun2*
 dog REL sleep exist there
 ‘The sleeping dog is over there

Here, the boundary between unmarked adjectives and relative clauses can be found, but it can also be identified as an extension from action predication to action modification. Secondly, the inability to distinguish attributive and predicative forms indicates an absence of boundary, which is illustrated in (49).

- (49) Thai
- maa2 see4 khaaw4*
 dog color white
 ‘The dog is white’ / ‘The white dog’

When this is compared to what in English would be a verb construction, the boundary between property predication and action predication also is shady, as indicated in (50).

- (50) Thai
maa2 lap1
 dog sleep

It is also hard to find a clear boundary between object reference and object modifier, as illustrated in (51).

- (51) Thai
nok3 kan0na0daa0
 bird Canada
 ‘Canadian bird’

Finally, the dotted arrow to ‘property reference’ in Figure 10 indicates a case of marked reference found in Thai and Kammú, as exemplified in (52).

- (52) Kammú
*kwàam wàaŋ khɔ́ɔŋ hntá kəə àh háa kɨ̃p.*⁵
 NR long POSS tail it has five hand.span
 ‘The length of its tail is five hand spans.’

Here, the expression for ‘length’ is overtly marked, which is seen in the nominalizer *kwàam* (apparently borrowed from Thai). This is not always the case, however, which is this extension is only indicated as possible.

From this illustration of how the languages fulfill different criteria, and accordingly have different extensions, with different boundaries, it is possible to conclude that the second hypothesis is supported: the languages in this study do behave differently in terms of which criteria they fulfill, and the more they fulfill, the more extensions they also have.

5. Summary and conclusions

One thing that scholars agree on when it comes to expressions of property, is that whether they should be considered as belonging to an adjective category or not, this function shows remarkable variation cross-linguistically as well as within languages. This is also a prominent

⁵ This is somewhat simplified due to difficulties with the font: it is not written entirely correctly.

fact supported in this study. What is not so often considered, however, is that in this multiple identity, a clear identity of property expressions can be discerned. This thesis started out with a two-folded goal: firstly, to give a theoretical background on adjectives, and secondly to design a set of criteria that could be employed to test the presence of adjectives in a set of fifteen different languages. Chapter 2, consisting of the theoretical background, presented various perspectives on adjectives and how to deal with this category, intended to illustrate both the ambiguity of the lexical category itself, and the research and discussion around it. This led to a discussion of how to consider lexical categories: when the notion of lexical categories is unclear, then there is naturally no possible way to discern the identity of a particular lexical category. As opposed to the traditional view of ‘parts of speech’, a different approach was presented, evaluated, and finally employed, namely that of Croft (2001). From this perspective, the traditional view of categories must be discarded for a new one: typological *prototypes* (such as can be named noun, verb, and adjective) are universal, but their boundaries and extensions must clearly be language-specific.

With the perspective of prototypes and their extensions as a foundation, two types of criteria were presented, intended to identify exactly these two levels in a sample of fifteen languages. The hypotheses were that all languages would have at least one of the first type, and that the more of the second type they had (though this could vary remarkably), the more extensions they would also have. The criteria were applied to the languages, with examples of those in which they were fulfilled, and those that they were not for each criterion. Following this, the results were presented according to which types the languages could be divided into. This was also illustrated in the extensions and boundaries that became clear in the figure from Croft (2001). In this, support for both hypotheses could be found: all the languages of the study did fulfill at least one of the two criteria, and showed varying fulfillments and extensions.

One question, however, remains. There has not yet been an answer to whether the prototypical adjective category is of the same status as nouns and verbs. This has been touched upon several times in this thesis, especially in the theoretical part. Although even Croft admitted that prototypical lexical categories are not quite the same on this point, if the perspective of prototypes and language-specific constructions is followed completely, which it must be if it should keep its validity, then *the prototypes* must be of the same status. Extensions and boundaries, on the other hand, can vary cross-linguistically much more than nouns and verbs. It is here that we find the ambiguity of the adjective category, something which is hinted also in its grammaticalization process discussed in chapter 2 above. With

languages at different stages when it comes to grammaticalization, it is still less surprising to find variation of the extensions and boundaries of adjectives. With this in mind, the position of ‘properties’ and ‘modification’ in Croft’s figure can also be considered from a different perspective: being situated between ‘object’/‘reference’ and ‘action’/‘predication’ is also an illustration of this variation and divergence from nouns and verbs.

This thesis could naturally be improved and carried further in a number of ways. The criteria could be modified, differently motivated, and above all, tested on a different and larger sample. A significant feature, which has not been empirically considered in this thesis, is languages with small closed adjective classes. Similarly, a study of adverbs, and their roles, could possibly be carried out. However, although further work can always be added, this thesis has obtained the goal that it began striving for: the identity of the lexical category of adjectives has been clarified. To see this, it is nonetheless necessary to discard the traditional view of categories and adhere to the fact that category boundaries are language-specific, but that certain universal prototypical categories can be found. As long as this view is employed, the problem of the questionable adjective category seems to be solved: there are indeed a universal category of property modifiers that can be called unmarked adjectives, and there are many ways of extending this, drawing category boundaries, and also refraining from doing so, in the languages of the world.

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Appendix I

Questionnaire: Translation from English to Target Language

Please translate the following sentences both as literally and as naturally as possible. If you wish, you may also give different ways of translating, perhaps also indicating which alternative is preferred. If a sentence is impossible to translate, you may also say so. Thank you very much for your time and participation!

Language:

1. Dogs are larger than cats, but cats are faster than dogs.
2. Cats are more jealous than dogs.
3. Cats sleep more than dogs, but dogs eat more than cats.
4. Her hair was blacker than the night.
5. Dogs are more friends than pets.
6. a dead cat
7. a living dog
8. He is a short man and she is a tall woman.
9. The happy man and the clever woman are over there.
10. The sleeping man is over there by the eating / dining woman.
11. The man is dead but the woman is alive.
12. The old and kind people are over there.
13. The sleeping children are over there by the eating / dining people.
14. The dog is white and soft.
15. The dog is sleeping and the cat is eating.
16. The dogs are white and soft.
17. The dogs are sleeping and the cats are eating.
18. The good dog is over there.
19. The clever cat is over there.

20. The sleeping dog is over there by the eating cat.
21. The dog is a puppy.
22. The puppy dog is over there.
23. The cat that is red is over there.
24. The dog that is clever is over there.
25. The dog that is sleeping is over there by the cat that is eating.
26. The dog is not young; it is old.
27. The dog is not fast; it is slow.
28. The dog is not sleeping; it is awake.
29. The cat is not eating; it is sleeping.
30. The dog is not a pet; it is a friend.
31. The length of its tail is five inches.
32. The speed of trains is impressive.
33. The similarity between the two dogs is striking.
34. The poor are always with us.
35. The young today are restless.

In the following examples, the aim is to show which of the two given expressions can be used in the target language. For example, in English it is possible say both “China food” and “Chinese food”, but only “French bread”. Please translate and write only those that are acceptable in the target language, or indicate unacceptable ones with an asterisk. You may also leave those that cannot be translated.

36. I like Chinese / China food.
37. I bought some French / *France bread.
38. The Canada goose is a type of Canadian bird / *Canada bird.
39. little brother / baby brother

THANK YOU!!!