Language and Culture Research Centre, James Cook University

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Adjectives classes: An introduction

[Note: This is a condensation of *Basic Linguistic Theory*, Vol 2, Chap 12. Many examples and references have benn omitted. Before preparing their individual presentations, participants are strongly advised to carefully study the whole chapter.]

12.1 Parameters of variation

Cross-linguistically, adjective classes differ in (I) size, and (II) grammatical properties.

I. Size nnd productivity. In every language, the class of nouns has several thousand members. The verb class generally has at least several hundred. Adjective classes present a rather different picture. We can distinguish:

—*(i)* Languages with a large, open class of adjectives which include hundreds of members. New items may be added to the class, by derivations from within the language, and by loans from without.

—*(ii)* Languages with a small closed adjective class, to which new members may *not* be added. There may be anything from two or three to a few dozen members.

II. Grammatical properties. There is a rough division into four types of adjective class:

—*(a)* Adjectives have similar grammatical properties to those of verbs, Typically, verb and adjective may both function as head of an intransitive predicate, taking similar morphological marking for some or all of tense, aspect, modality and mood. It is often the case that verbs and adjectives may only modify a noun — which is head of an NP — through a relative clause construction.

—*(b)* Adjectives have similar grammatical properties to those of nouns. Typically, both noun and adjective may be restricted to occurrence in an NP (that is, they cannot be used as head of a predicate). An NP may include noun, or noun plus adjective, or just adjective. Adjectives may take the same inflectional processes as nouns, for instance relating to gender and number.

—*(c)* Adjectives combine some of the grammatical properties of nouns with some of those of verbs. For example, they may be able to occur in an NP, then inflecting like a noun, and also as head of an intransitive predicate, then inflecting like a verb.

—*(d)* Adjectives have grammatical properties different from those of nouns and from those of verbs. An adjective cannot be the sole lexeme in an NP, neither can it function as intransitive predicate. It takes none of the morphological processes available to nouns and to verbs but instead has categories of its own.

12.2 Why recognise an adjective class?

Linguistics has two interwoven components — description and theory. The description of a language is framed in terms of basic linguistic theory, choosing from the available roster those categories and construction types which are relevant and useful for the language under study. The theory itself is made up of interrelated inductive generalisations based on good quality descriptions. As each new language is described, it will throw up significant features which lead to the refinement, revision or extension of part of the theory.

The recognition of an 'adjective class' in the grammar of a particular language (as for every other category) is justified on two grounds — (a) its usefulness and explanatory power within that grammar, and (b) its relation to the general typological theory.

(a) Utility in description. Unlike many formal theories, basic linguistic theory does not consist of a list of components which every grammar *must i*nclude. What it does, instead, is provide a range of theoretical tools and a pool of conceptual categories, each of which *may* be utilised in the grammar of a particular language if it fulfils a useful role there in description and explanation.
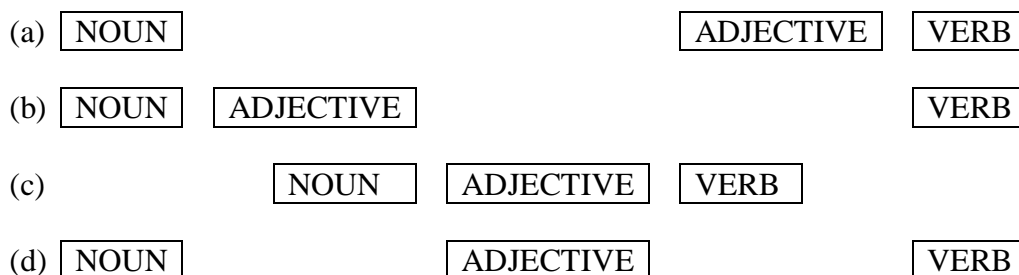
There is never just one point of justification for an analytic decision in linguistics. It is always the case that a number of criteria come together — and reinforce each other — to define a category. This category will then play a role in explanation. This is as true for the adjective class as for any other feature of a grammar.

Saeed (1999: 104-9) recognises a smallish class of about 42 adjectives in Somali (Cushitic branch of Afro-asiatic, Somalia, Ethiopia and Kenya). Criteria for recognising adjective as a class distinct from noun include: adjectives 'do not occur with suffixed determiners' and 'they do not have inherent number and gender'. They differ from verbs in that they 'may mark plural agreement with a nominal head by reduplication, which does not occur with this function in verbs.' Having established an adjective class, it has further properties within the grammar. For example, only adjectives can occur as complements of the copula verb *yahay* 'be', being positioned between satellite clitics and the verb. Adjectives may then fuse with the present tense form *yahay* (for example *wanaagasán* 'good' plus *yahay* 'is' gives *wanaagaányay*). In addition, adjectives enter into comparative constructions with adposition *ká* 'from' as marker of the standard of comparison.

For every language which has been thoroughly studied, once an adjective class has been recognised, it does play a significant role in the grammar. That is, there is never just one property which serves to identify this or any other word class; there are always several.

(b) Role in theoretical generalisation. As said before, every new grammatical description is likely to provide feed-back into the make-up of basic linguistic theory. But, in order to achieve this, the description must be framed within the general theoretical matrix.

Consider four languages whose adjective classes show different grammatical properties — types (a) - (d) described under II in §12.1. They can be diagrammed, with grammatical similarities and differences between word classes modelled by spatial distance:

(a) | NOUN | | ADJECTIVE | VERB |

(b) | NOUN | ADJECTIVE | | VERB |

(c) | NOUN | ADJECTIVE | VERB |

(d) | NOUN | ADJECTIVE | VERB |

In language (d), adjectives have grammatical properties different from those of nouns and verbs, so that a distinct adjective class must be established. However, alternative analyses are available for languages (a) and (b). In (a), the adjective class has similar grammatical properties to the verb class. We could either:

—(i) Say that adjectives constitute a subclass of a combined verb-adjective class (conveniently called just 'verb class'). Or:

—(ii) Say that adjectives are a separate class, noting that their grammatical properties are similar to those of verbs.

In language (b), the adjective class has similar grammatical properties to the noun class. The same two analyses are available, mutatis mutandis. Either:

—(i) Say that adjectives constitute a subclass of a combined noun-adjective class (conveniently called just 'noun class'). Or:

—(ii) Say that adjectives are a separate class, noting that their grammatical properties are similar to those of nouns.

If one were interested only in the description of a single language, either alternative would be equally good, the difference being pretty much terminological. But if the linguist is interested in relating their grammar to a general theoretical framework, then the consequence of choosing one alternative over the other is immense. Under analyses (ii) all of languages (d), (a) and (b) have a major word class 'adjective'. As will be shown below, the three adjective classes will have similar functional properties and semantic content.

Were analyses (i) to be followed, only language (d) would have a major word class 'adjective'. It would be possible — but both complex and unnecessary — to try to relate the

adjective class in (d) to a subclass of verbs in language (a) and to a subclass of nouns in (b). Analyses (i) would greatly impede the task of comparing languages and working towards a simple and elegant general theory of language structure.

And what about language (c), where adjectives share significant grammatical properties with both verbs and nouns? If analysis (i) were extended to language (c), we would have to say that adjectives are simultaneously a subclass of noun and of verb. There would just be two major word classes, noun and verb, with overlapping identity. Again, the approach followed in analysis (i) has complex and unnecessary consequences.

For every language that has been closely examined, an adjective class can be recognised, although for languages of types (a) and (b) there is an alternative analysis as 'subclass of verbs' or 'subclass of nouns'. If the linguist is interested not only in description of their language but also in the continued refinement of the general grammatical framework in terms of which grammars are written, then analysis (ii) is the alternative to follow.

12.3 Criteria for recognition

There are two major semantic tasks for an adjective to perform: (A) state a property, and (B) further specify the referent of a noun. In some languages an adjective has an additional function: (C) serving as the parameter in a comparative construction. And in a number of languages we also find (D): an adjective may function as a manner modifier (like an adverb) in further specification of the reference of a verb.

(A) Make a statement that something has a certain property. There are two syntactic techniques for coding this:

—**(A-i)** In many languages this is achieved by placing an adjective in copula complement slot, as in the English example:

(1) [The chief]_{COPULA.SUBJECT} [is]_{COPULA.PREDICATE} [tall]_{COPULA.COMPLEMENT}

The predicate in this clause is simply the copula verb *is*. The adjective *tall* is *not* part of the predicate, but rather the copula complement, an argument of the predicate (in the same way that *the chief* is an argument, the copula subject).

—**(A-ii)** There are many languages in which an adjective may function as head of an intransitive predicate, and this is then the way in which statement of a property is achieved. It can be exemplified from Fijian:

(2) [E   balavu]_{INTRANSITIVE PREDICATE} [a   tuuraga]_S
      3sgS tall   ARTICLE   chief
      The chief is tall

In Fijian, the head of an intransitive predicate can be a verb or a noun or an adjective — as in (2) here — or a pronoun or a complete NP. In each case the predicate takes identical markers for person and number of subject, for tense, and various semantic modifiers.

(B) As a specification that helps identify the referent of the head noun in an NP. This is shown by the adjective functioning as a modifier within an NP, as in (3) from English and (4) from Fijian. In each example, the modifying adjective is underlined.

(3) [The <u>tall</u> chief]$_S$ [laughed]$_{INTRANSITIVE.PREDICATE}$

(4) [E   aa   dredre]$_{INTRANSITIVE.PREDICATE}$ [a   tuuraga   <u>balavu</u>]$_S$
   3sgS PAST laugh   ARTICLE chief   tall
   The tall chief laughed

However, the ways in which an adjective may be used to modify a noun vary; they are discussed in §§12.5-6.

In most languages all adjectives have functions (A) and (B). In some, just a few adjectives may be confined to one of these functions. There are also languages in which the entire class of adjectives only has function (B); and there may well be others where it only has function (A). These cases are discussed in §12.6.

(C) Some — but by no means all — languages have a comparative construction. Adjectives may always function as the 'parameter of comparison' (and sometimes they are the only words which may be the parameter). Illustration can again be provided from English, in (5), and from Fijian, in (6).

(5) [Suva]$_S$ [is]$_{COP.PREDICATE}$ [more beautiful]$_{CC}$ [than Nadi]$_{STANDARD}$

(6) [E   toto'a   ca'e]$_{INTR.PREDICATE}$ [o   Suva]$_S$ [mai Nadi]$_{STANDARD}$
   3sgS beautiful MORE   ART place   FROM place
   Suva is more beautiful than Nadi

In each language the comparative construction is an extension from the type (A) adjective function for the language. The adjective — in the copula complement in (5) and in the intransitive predicate in (6) — bears an index of comparison; this is *more* in English and *ca'e* (which also has the meaning 'high') in Fijian. And an additional argument is added to the clause, the standard of comparison; the function of this NP is marked by *than* in English and by preposition *mai* (which also has the meaning 'from') in Fijian.

(D) In some languages adjectives may also modify verbs, either in plain form or via a derivational process. The two possibilities can be illustrated from colloquial English — for

example, *He speaks (real) bad* — and standard British English — *He speaks (really) badly*. There may also be more limited possibilities for adverbs to modify adjectives (for example, *openly hostile* in English).

We can now return to the discussion of the four types of languages, (a) - (d), from §12.1.
—*(a)* Adjectives show grammatical properties similar to those of verbs. The language shows technique (A-ii). Lexemes from both classes function as head of a predicate and are likely to undergo similar morphological processes. In many of these languages, an adjective is able to modify a noun which is head of an NP — property (B) —only within a relative clause construction, as a verb does. If it does directly modify a noun it is unlikely to share any morphological processes with it.
—*(b)* Adjectives show grammatical properties similar to those of nouns. Such a language will utilise technique (A-i). For statement of a property, an adjective will function as complement within a copula clause (or within a verbless clause); it will not function in an intransitive predicate. In languages of type (b), an adjective is always able to directly modify a head noun within an NP, and may show agreement with it in categories such as gender, number and case. In addition, it may be that an adjective can be the sole lexeme in an NP.
—*(c)* Adjectives may function, like verbs, as head of an intransitive predicate, (A-ii) as in type (a). They also have similar properties to a noun when functioning within an NP, as in type (b). Some languages of this type combine techniques (A-ii) and (A-i) — allowing adjectives to occur both as intransitive predicate and as a copula complement.
—(d) The grammatical properties of adjectives are different from those of nouns and verbs. Typically, in such languages, an adjective cannot function as intransitive predicate and it cannot be sole lexeme within an NP. When it modifies a noun within an NP, it does not repeat any grammatical specifications from the noun. An adjective can function on its own as copula complement, whereas a noun may not be able to. (All of these properties apply for adjectives in English.)

12.4 The semantic content of adjective classes

An adjective class is recognised by virtue of its showing property (A) or (B), usually both, and often also (C) and/or (D), as set out in the previous section. And also by the meanings it covers — the semantic types included within the class.

Semantic types which relate to the adjective class fall into three sets.

SET A. There are four core semantic types, which are typically associated with both large and small adjective classes.

1. DIMENSION — 'big', 'small', 'long', 'tall', 'short', 'wide', 'deep', etc.

2. AGE — 'new', 'young', 'old', etc.

3. VALUE — 'good', 'bad', 'lovely', 'atrocious', 'perfect', 'proper(/real)' etc. (And also concepts such as 'odd', 'strange', 'curious', 'necessary', 'crucial', 'important', 'lucky'.)

4. COLOUR — 'black', 'white', 'red', etc.

SET B. Three semantic types are typically associated with medium-sized and large adjective classes.

5. PHYSICAL PROPERTY — 'hard', 'soft', 'heavy', 'wet', 'rough', 'strong', 'clean', 'hot', 'sour', etc. And a subclass referring to corporeal properties, e.g. 'well', 'sick', 'tired', 'dead', 'absent'.

6. HUMAN PROPENSITY — 'jealous', 'happy', 'kind', 'clever', 'generous', 'cruel', 'proud', 'ashamed', 'eager', etc.

7. SPEED — 'fast, quick', 'slow', etc.

SET C. A number of other semantic types are associated with large adjective classes in some languages. These include:

8. DIFFICULTY — 'easy', 'difficult', 'tough', 'hard', 'simple', etc.

9. SIMILARITY — 'like', 'unlike', 'similar', 'different(/strange)', 'other', etc.

10. QUALIFICATION — 'definite', 'true', 'probable', 'possible', 'likely', 'usual', 'normal', 'common', 'correct', 'appropriate', 'sensible', etc.

11. QUANTIFICATION — 'all(/whole)', 'many', 'some', 'few', 'only', 'enough', etc.

12. POSITION — 'high', 'low', 'near', 'far/distant', 'right', 'left(/strange)', 'northern', etc.

13. CARDINAL NUMBERS. (In some languages these constitute a separate word class.) And 'first', 'last' (together with other ordinal numbers).

Small adjective classes tend to have all (or almost all) their members from the core semantic types. A classic example comes from Igbo, where we find an antonymic pair from each of the types in Set A:

DIMENSION	kuku	'large'	nata~	'small'
AGE	oɦuɦuɦ	'new'	once~	'old'
VALUE	oɦna	'good'	oɟoɟɦ	'bad'
COLOUR	0jai!	'black, dark'	oɦa	'white, light'

[See Table 12.1 in *BLT* 2:75 for a summary of the number of adjectives in the semantic types from Sets A and B for eight languages whose classes range in size from 7 to c. 84.]

12.5 Distinguishing types of adjective class

12.5.1 Distinguishing between adjective and verb classes

Where both adjectives and verbs can fill the intransitive predicate slot — in a language of type (a) — criteria for distinguishing the two word classes include: (1) different morphological and syntactic possibilities within the predicate slot; (2) different transitivity possibilities; (3) different possibilities as modifier within an NP; (4) different possibilities in comparative constructions; (5) different possibilities for forming adverbs (that is, modifiers to verbs). We can discuss these one at a time. (There is a fuller list in the Guidelines for Presenters.)

(1) Different possibilities within the predicate slot.

In some languages exactly the same morphological processes and syntactic modifiers may apply to a verb and an adjective within a predicate. However, in many languages the possibilities vary.

Most typically, an adjective is far more restricted than a verb when it occurs as predicate head. For example, in the Iroquoian language Cherokee (Feeling 1975), a verb as predicate head allows three types of prefix and two varieties of suffix. In contrast, an adjective as predicate head allows only pronominal prefixes:

(7) Predicate structure in Cherokee

	verb				
	adjective		adjective		
±initial prefixes	+pronominal prefix	±reflexive prefix	+verb/ adjective root	±non-final suffixes	±final suffix
8 orders, including negative, 'again', 'since'				13 orders, including reversive, repetitive, completed, tense/aspect, interrogative	pre-incipient, future, infinitive, tense, etc.

Note that only those positions which are obligatory for verbs (indicated by '+') are found with adjectives.

In other languages, verbs allow some modifiers which adjectives lack, and adjectives permit some which verbs lack. For example, in Vietnamese (Nguyen 1987: 791), only adjectives can be preceded by *rấ*'very' and *khát* 'rather', and only verbs can occur with the exhortative particle *hay*.

Typically, adjectives show fewer possibilities for mood than do verbs, particularly for imperative (and its subtypes such as hortative).

Another recurrent criterion concerns reduplication possibilities. In Chinese (Xu 1988), a verb when reduplicated carries the meaning 'do a little bit', for example:

(8)   doŋg   'to move'   doŋg doŋg 'to move a little'

In contrast, when an adjective is reduplicated, the semantic effect is 'intensification of the quality', as in:

(9)   hóng   'red'   hónghóng   'vividly red'

Adjectives may also differ from verbs in possibilities for derivation. In Mandarin Chinese (Xu 1988), different sets of derivational suffixes apply to verbs (e.g. agentive nominaliser *-jia*) and to adjectives (e.g. verbaliser *-hua*).

(2) Different possibilities for transitivity

In many languages some verbs are ambiransitive; that is they may be used in an intransitive clause or in a transtive clauses, An variant on to this is found in Fijian where for most verbs the bare root is used only in an intransitive clause (e.g. *dredre* 'laigh', *rogo* 'be audible') but a suffix may be added to make the verb transitive (*dredre-va* 'laugh at', *rogo-ca* 'hear').

In a language where an adjective can function, like a verb, as predicate head, the difference is that an adjective may only be used in an intransitive predicate.

(3) Different possibilties as modifier within an NP

There are a number of ways in which adjectives may differ from verbs in the modification of a head noun within an NP.

In some languages with a verb-like adjective class, both verb and adjective can modify a noun through a process of nominalisation, but there may be differences of detail. In Chinese, for example, a verb must take nominaliser *de* when functioning as modifier with an NP, whereas for most adjectives *de* is optional.

A number of languages have adjectives and verbs modifying a noun through a relative clause construction. In Mojave (Yuman, California; Schachter 1985: 19), a relativising particle is obligatory with a verb, when modifying a noun, but optional with an adjective.

(4) Different possibilities in comparative constructions

Not all languages have a comparative construction (types of comparative construction were illustrated in (5-6) above). In some of the languages that do, the 'parameter of comparison' can only be an adjective, but in others there are wider possibilities. In Edo, for example, both adjectives and verbs may occur in comparative constructions (Omoruyi 1986). However, in some languages only adjectives can be compared, and this furnishes a criterion for distinguishing between adjective and verb classes; such a property applies to Toba-Batak (Austronesian, Indonesia; Nababan 1981: 7), and Korean (Sohn 2004).

(5) Different possibilities for forming adverbs

In Fijian, for example, adverbs can be formed from adjectives (but generally not from verbs) by means of the prefix *va'a-*; for example, *va'a-levu* 'greatly' from *levu* 'big' and *va'a-dodonu* 'correctly' from *dodonu* 'correct'. In Japanese, too, it is mainly adjectives which may function as adverbs, this being one of the properties which link the two adjective classes into one macro-class.

There are other properties which recur. In terms of their occurrence in serial verb constructions, stative verbs are the least serialisable of all (Aikhenvald 2018: 157). If a language has serial verb constructions and its adjectives may head the predicate, adjectives will only occur in a very limited subset of serial verbs (see, for instance, Aikhenvald 2004a on Tariana and Hyslop 2004 on North-east Ambae), In many languages, some intensifiers ('very') and quantifiers ('much') typically apply to adjectives and not to verbs.

In some languages where adjectives may function both as head of an intransitive predicate and also as modifier in an NP, there is a definite preference for employing them in the former function. For example, a Korean will be more likely to say 'Men are numerous' than 'There are many men' (Ramstedt 1939: 35).

12.5.2   Distinguishing between adjective and noun classes

There are a number of kinds of criteria for distinguishing adjectives from nouns, where these share grammatical properties in a language of type (b): (1) the internal syntax of NPs; (2) morphological possibilities; (3) the comparative construction; and (4) adverbial use. These will be discussed one at a time. (There is a fuller list in 12.11.)

(1) The internal syntax of NPs

The prototypical NP has a noun as head and one (or, sometimes, several) adjectives as modifiers. Where this scheme is closely adhered to there is no difficulty in distinguishing between nouns and adjectives; this applies in English, and in Basque (Saltarelli 1988: 144).

However, there are some languages in which a noun may also function as modifier. Generally, the possibilities for noun modifiers are rather limited. It may be that an NP can include no more than one noun modifier, but several adjective modifiers. And whereas every, or almost every, adjective is likely to function as modifier within an NP, only a limited set of nouns may have this function. In Tariana just human nouns may function as modifier.

In some languages a noun can be modifier only under particular grammatical conditions. In Bilin (Cushitic branch of Afro-asiatic, Ethiopia; Palmer 1967: 206), for example, a modifying noun must be in genitive form.

The other variation on the prototypical pattern is for an adjective to make up a complete NP. In some languages this can be described as the adjective becoming head of the NP, but in most instances it is better treated as an NP whose head noun has been omitted (under certain discourse conditions), which consists just of a modifier. In languages with gender, the ellipsed noun is likely to determine the gender of the modifier adjective.

(2) Morphological possibilities

One of the most useful criteria for distinguishing between nouns and adjectives is gender (or noun classes). In Latin, for instance, each noun belongs to just one of the three genders, while an adjective can be in any gender, agreeing with the noun it is modifying.

In some languages only certain adjectives may take gender or noun class marking. This applies in Swahili, where the adjective class has two subclasses. One subclass consists of about fifty native roots which take the concordial prefix of the noun they modify; the other subclass involves a score or so of borrowed adjectives (mostly from Arabic) which do not take the prefixes. However, the subclasses are linked by all their members sharing other grammatical properties.

The gender/noun class distinction spans morphology and syntax. A similar criterion is provided by classifiers; generally, an adjective may occur with a larger set of classifiers than may a noun (potentially, an adjective may occur with all classifiers, while a noun may be limited to one, or to just a few). (See Dixon 1977a: 122 on the Australian language Yidiñ.)

A survey of the literature shows a number of different kinds of morphological differences between nouns and adjectives. Only a noun may take possessive affixes — in Finnish and in Hungarian, and also in the Papuan language Alamblak (Bruce 1984: 74 provides a most

useful table of the various morphological differences between adjectives and the other word classes in Alamblak).

Typically, adjectives will accept only a subset of the affixes available to nouns. In Maasai (Chari-Nile subgroup of Nilotic, Kenya; Tucker and Mpaayei 1955: 3-13), a noun — as head of an NP — inflects for gender and number, while an adjective — as modifier — inflects only for number. But if the head noun is omitted, so that the NP consists just of an adjective, then that inflects for gender and number, like a noun. The principle appears to be that number marking goes on every word in an NP, but gender marking just onto one word (a head noun, if present, otherwise an adjective).

In some languages a given suffix may be used on both noun and adjective, but with a difference of meaning. For the Australian language Bandjalang, Crowley (1978: 30) describes how the suffix *-bu* means 'still' with an adjective (for example *miriN-bu* 'still alive') but 'along' with a noun (for example *balun-bu* 'along the river').

Reduplication is another grammatical process which may have different semantic effect with nouns and with adjectives. In the Australian language Emmi (Ford 1998: 140), reduplication of a noun indicates plurality (for example, *perre* 'grub', *perreperre* 'grubs') while reduplication of an adjective indicates intensity (for example, *duk* 'big', *dukduk* 'very big').

A note on methodology is in order here. It might be suggested that the semantic effect of reduplication is a consequence of the semantic nature of a lexeme, not of its grammatical word class. On this principle, lexemes referring to 'properties' would be marked for intensity, and not for plurality, whatever word class they belonged to. That this is untrue is shown by comparing the semantic effect of reduplicating nouns and adjectives in Emmi and in Dyirbal, where reduplication indicates plurality on both nouns and adjectives:

(20)	REDUPLICATION OF NOUN	REDUPLICATION OF ADJECTIVE
Emmi	plural, e.g. *perreperre* 'grubs'	intensity, e.g. *dukduk* 'very big'
Dyirbal	plural, e.g. *jambunjambun* 'grubs'	plural, e.g. *bulganbulgan* 'many big (things)'

This shows that the semantic effect of reduplication does not here operate on the basis of the semantics of the lexeme involved, but rather upon its word class, with different languages having varying specifications for their word classes.

The case system for adjectives may differ in size from that for nouns. Nichols (1994: 95-9) states that in Ingush (North-east Caucasian) nouns may select from eight cases but adjectives just from two — nominative (corresponding to nominative on nouns) and oblique

(corresponding to genitive, dative, ergative, instrumental, locative, comparative and allative on nouns). Estonian is similar to Ingush in this feature.

(3) Comparative construction

In some languages — for example, Finnish, Hungarian, Russian and Papantla Totonac (Levy 2004) — only an adjective can occur as the parameter of comparison in a comparative construction, and this serves to distinguish adjectives from nouns. However, in other languages adjectives and some nouns share this property and it is thus not a relevant criterion; this applies for Portuguese, for Sanskrit (Bhat 1994: 181-2) and also for Dyirbal (Dixon 1972: 226-8).

(4) Use as adverbs

In Tariana, in Mandarin Chinese, and in Buriat (Poppe 1960), only adjectives — not nouns — also have adverbial function.

A further distinguishing property is given by Johanson (2006) in his discussion of the adjective classes in South Siberian and other Turkic languages — nouns answer the questions 'who?' and 'what?', whereas adjectives answer questions 'what kind of?' and 'how?'. This would apply for many other languages.

12.5.3   Adjectives grammatically similar to both verbs and nouns

The last two sections have discussed languages in which adjectives have similar grammatical possibilities to verbs, and languages in which they have similar possibilities to nouns. What more natural than for a language to combine these features — for an adjective to inflect like a noun when occurring in an NP, and to inflect like a verb when functioning as predicate head, type (c) from §12.1. In fact, a rather small number of languages appear to be of this type. We can present a couple of well-documented examples. (See *BLT* for two more.)

(1) In languages from the Berber subgroup of Afro-asiatic, adjectives — like other lexemes — have triconsonantal roots, e.g. *m - l - l* 'white'. An adjective will inflect for gender and number, like a noun, when in an NP and as copula complement. It will inflect for tense and for person and number of the subject, like a verb, when functioning as head of an intransitive predicate. (See, for example, Aspinion 1953; Sadiqi 1986.)

(4) Sapir's grammar of Takelma (Takelman family, Oregon) was written at a time when many grammars of North American languages silently included adjectival lexemes in either the verb or the noun class. He comments (Sapir 1922: 255-6):

'Adjectives can not in Takelma without further ado be classed as nouns or verbs, as they have certain characteristics that mark them off more or less clearly from both; such are their distinctly adjectival suffixes and their peculiar method of forming the plural. In some respects they closely approach the verb, as in the fact that they are frequently preceded by body-part prefixes . . . They differ, however, from verbal forms in that they can not be predicatively used . . . nor provided with the pronominal suffixes peculiar to the verb; a first or second person relation is brought about by the use of appropriate forms of the copula *ei-* BE. They agree with the noun and pronoun in being frequently followed by the distinctively denominative suffix *-t'a* . . . and in the fact that, when forming part of a descriptive noun, they may take the personal endings peculiar to the noun . . . It thus appears that the adjective occupies a position midway between the noun and the verb, yet with characteristics peculiar to itself.'
This appears to be another language of type (c)..

In other languages, adjectives may be most similar to one of nouns and verbs, but have some properties in common with the other. In Upper Necaxa Totonac, adjectives have grammatical properties similar to those of nouns. However, an adjective as copula complement may be modified by *tunká* 'very'; nouns do not take *tunká*, but intransitive state verbs (e.g. 'be ashamed') do (Beck 2000: 233-4). In the Australian language Emmi (Ford 1998: 139-40), adjectives inflect like nouns but are negated, like verbs, by the particle *way* (nouns, in contrast, are negated by the negative copula *piya*).

12.5.4 Adjectives grammatically different from both verbs and nouns

In a further set of languages, the morphological and syntactic properties of adjectives differ from those of verbs and of nouns, type (d) from §12.1. I will mention just 3 examples of this.

(1) English. Only nouns may take a plural suffix; only verbs may take tense-aspect suffixes; only adjectives may take comparative and superlative marking, shown either by affixes (*-er*, *-est*) or by pre-modifiers (*more*, *most*). Generally, an adjective cannot occur as head of an NP (while a noun can), nor as predicate (while a verb can). Only an adjective can occur alone as copula complement, as in *John is tall*; a noun requires an article or other determiner in this slot, as in *John is a doctor/my son*.

(2) Teribe (Chibchan family, Panama and Costa Rica; Quesada 2000). Verbs take aspect, modality and mood suffixes, and nouns take plural marking; none of these is available to adjectives. An adjective may modify a noun in an NP, may occur in a comparative construction, and may be complement in a verbless (copula-type) construction.

(4) Tunica (isolate, Louisiana; Haas 1941). Verbs take a variety of morphological processes for aspect and modality, and also mark person and number of the subject argument. Nouns take article-like prefixes. Adjectives constitute a quite distinct word class, not undergoing any morphological processes. They may function as copula complement and may modify a noun within an NP.

12.6   Languages with restricted functional possibilities for adjectives

As described in §12.3, in the great majority of languages adjectives have two canonical functions:

—(A) In a statement that something has a certain property, coded through the adjective functioning either as intransitive predicate (A-ii) or as copula complement (A-i).

—(B) As a specification that helps focus on the referent of the head noun in an NP, the adjective functioning as modifier to the head.

In a fair number of languages, adjectives can have one or both of two further properties:

—(C) As the parameter of comparison in a comparative construction.

—(D) As modifier to a verb, in adverbial function.

There are some languages whose adjectives do not have both (A) and (B) functions. They can be divided into three classes.

Class (1), adjectives which just function as modifier within an NP, and lack function (A). This applies to Yoruba (George Madugu 1976); and to Dagbani (Gur family, Ghana; Olawsky 1999 and p.c.). In Yoruba, for example, one simply cannot say 'Olu is good' or 'Ibadan is large'; a copula complement must be an NP, including a head noun, as in 'Olu is a good girl', 'Ibadan is a large city' (George Madugu 1976: 93).

Class (2), adjectives which just function as copula complement, and lack function (B). A number of languages from the northern branch of the Carib family are of this type, including Hixkaryana (Derbyshire 1979: 81, 1985: 10-15, 27-8) and Tiriyó (Meira 1999: 334-6). These languages have a word class whose members may:

—function as copula complement (like nouns, and unlike verbs);

—have adverbial function, as modifier to a verb.

They cannot directly modify a head noun in an NP but must first be nominalised (just as a verb must be).

   The semantic content of the non-prototypical adjective classes in languages of classes (1) and (2) do accord with the scheme outlined in §12.4:

—Yoruba: five DIMENSION, four AGE, four VALUE, three COLOUR, five PHYSICAL PROPERTY, four HUMAN PROPENSITY.

—Dagbani: five or more in each of DIMENSION, AGE, VALUE, COLOUR; about twenty in PHYSICAL PROPERTY, etc.

For class of languages (2), about 30 adjectives are reported for Hixkaryana and about 44 for Tiriyó. These include terms from DIMENSION, VALUE, PHYSICAL PROPERTY, HUMAN PROPENSITY and SPEED (AGE terms are nouns while COLOUR are derived adjectives). But the adjective class in North Carib languages also includes terms for QUANTIFICATION ('all') and NUMBER ('one', 'two') together with items relating to PLACE ('hither', 'thither', 'beyond', 'this side of') and TIME ('later', 'soon', 'now', 'yesterday'). It is perhaps not surprising that the Carib adjective class, which functions only as copula complement and as adverb, should include words of place and time which are typically coded as adverbs in other languages.

Class (3), adjectives which only function as intransitive predicates, and lack function (B). In some of the languages with verb-like adjectives that can function as intransitive predicate, both adjectives and verbs may modify a noun through a relative clause construction.

12.7 Languages with two adjective classes

In §12.3, the criteria for recognising an adjective class were set out as: a word class distinct from noun and verb, including words from the prototypical adjective semantic types, and functioning either as intransitive predicate or as copula complement; and/or modifying a noun in an NP. It is possible for there to be two word classes which satisfy these criteria; that is, a language might have two adjective classes. I will mention two well-documented instances of this (a third is described in *BLT*).

(1) Macushi (information from Abbott 1991 and p.c.) has an adjective$_1$ class similar to that described in §12.6 for the related North Carib languages Hixkaryana and Tiriyó. Unlike its relatives, Macushi has a second small class, adjective$_2$, whose members may modify a noun in an NP (or make up a full NP, with the head noun ellipsed). They may not function as modifiers to the verb (that is, as adverbs), and can only be copula complement when the denominaliser *pe* is included. In summary:

(21)	ADJECTIVE$_1$ CLASS	ADJECTIVE$_2$ CLASS
can modify noun	only with nominaliser	√
can make up whole NP	—	√
can be copula complement	√	only with denominaliser
can function as adverb	√	—

According to Abbott (1991: 88, 129-30), each class is rather small. The reported members are:

(22)	ADJECTIVE$_1$ CLASS	ADJECTIVE$_2$ CLASS
DIMENSION	'big', 'deep'	'long', 'fat'
VALUE		'good', 'bad'
PHYSICAL PROPERTY	'hard', 'well'	'hot', 'cold'
SPEED		'fast'
QUANTIFICATION	'all', 'few', 'many'	
NUMBER	'two'	
PLACE	'here', 'there'	
TIME	'today', 'yesterday', 'long ago', 'later', 'regularly', 'afternoon'	

It will be seen that two of the recurrent semantic types for adjective classes, DIMENSION and PHYSICAL PROPERTY, have members in both classes.

(2) Japanese has two adjective classes, each of which is quite large. Their grammatical properties can be summarised as follows (based on Backhouse 1984; Takeuchi 1999: 81-2, and the full discussion in Backhouse 2004).

—What are called inflected adjectives may function as intransitive predicates, like verbs. They take most of the inflections available to verbs, although with allomorph *-i* for present tense as against *-ru* on verbs. Adjectives differ from verbs in not taking imperative and hortative suffixes, and in not combining with auxiliaries to mark aspect, benefaction, etc. Like verbs, they may modify nouns.

—The class of uninflected adjectives is like nouns in not taking any inflections, and in functioning as copula complement. These adjectives cannot function as intransitive predicate (without a verbalising suffix being added), and they may only modify a noun if the marker *na* or *no* is also included.

The properties just listed indicate the differences between the two adjective classes. They do, however, share important syntactic properties, for example, members of both classes may be modified by an intensifier, and they may also function as adverbs. Some of their major grammatical properties can be tabulated:

(23)	inflected adjectives (verb-like)	uninflected adjectives (noun-like)
can be intransitive predicate	√	only with derivational suffix
can be complement of copula *da*	—	√
can modify noun	√	needs *na* or *no*
can be modified by intensifiers	√	√
can function as adverb	√	√
may accept verbalising suffix *-sugiru* 'too'	√	√

Looking now at semantic types, AGE, COLOUR and SPEED terms are all inflected adjectives. Most DIMENSION and PHYSICAL PROPERTY terms are also inflected adjectives, although some belong to the uninflected class, while VALUE terms are divided between the two classes. HUMAN PROPENSITY terms are predominantly in the uninflected class, although inflected items are not uncommon.

In terms of size and composition, the inflected adjective class has about 700 members (some lexically complex); all the lexically simple members are native roots. The uninflected adjective class has more than three times as many members, some native forms and some loans from Chinese and from European languages; new forms can be added to this class (but not to the inflected class).

12.10   Summary

The label 'adjective class' is here used for a word class that:

• is grammatically distinct from noun class and verb class;
• (A) functions either as intransitive predicate or as copula complement
    and/or (B) modifies a noun in an NP;
• includes words from some or all of the prototypical adjective semantic types —
    DIMENSION, AGE, VALUE and COLOUR.

In some languages two separate adjective classes can be recognised. Note that although the prototypical adjective class combines functions (A) and (B), in some languages the class has only one of these functions.

There are two broad parameters of variation for an adjective class — size and grammatical properties. Some languages have a small closed class (with anything from a handful to a few score members) whereas others have a large open class (to which new derivations and/or new loans may be added). And adjectives may be similar in their grammatical properties to nouns, or to verbs, or to both, or to neither.

It can sometimes be a tricky matter finding criteria to distinguish 'verb-like' adjectives from verbs, or 'noun-like' adjectives from nouns. Our experience is that for every language which is studied in detail, such criteria can be found.

References: See *BLT* volume 2, and

Aikhenvald, Alexandra Y. (2018*). Serial verbs*. Oxford: Oxford University Press.