

Plural words*

MATTHEW DRYER

Abstract

A minority of the languages of the world express plurality by means of plural words, separate words which modify nouns but which serve the same grammatical function as plural affixes in other languages. A few languages have singular or dual words as well. The grammatical category of these plural words varies: in some languages they form a category by themselves, while in other languages they are articles or numerals. These plural words tend to precede the noun in VO languages, and to follow in OV languages, the opposite from what some work on word order correlations might lead one to expect. They are particularly common in southeast Asia and Australasia.

One of the most common inflectional categories found among the languages of the world, and perhaps the most common, is that of *number* marking on nouns, most commonly represented by a morpheme indicating plural number, but occasionally in addition by morphemes indicating either singular number or dual number. There are also many languages, like Japanese, which lack a productive mechanism for indicating grammatical number. There is a third class of languages, however, which lack number as an inflectional category of nouns, but in which plurality is (or can be) indicated by a *plural word*, a morpheme whose meaning and function is similar to that of plural affixes in other languages, but which is a separate word that functions as a modifier of the noun. The following examples from Gbeya (a language in the Adamawa-Eastern branch of Niger-Congo) and Hawaiian illustrate such plural words.

- (1) Gbeya:
ó tú wí-ré
plur black person
'black people' (Samarin 1966: 81)

(2) Hawaiian:

‘elau a‘u mau i‘a

two my plur fish

‘my two fish’ (Elbert and Pukui 1979: 159)

Plural words have rarely been noticed as a systematic phenomenon. Schachter (1985), in a survey of parts of speech, describes plural words in Tagalog and Vietnamese, referring to them as *pluralizers* and characterizing them as a kind of quantifier. But many linguists are unaware of the existence of such words. The purpose of this paper is to describe the cross-linguistic properties of such plural words and the characteristics of languages which employ such plural words, based on a survey of plural morphemes in 307 languages. In 259 of these languages, plural is indicated by affixes on the noun. The remaining 48 languages indicate plural by means of plural words and provide the basis for the conclusions of this paper.

The larger sample of 307 languages to which the 48 languages with plural words belong is a convenience sample, but one for which there has been a concerted effort to include at least one language from every language family and subfamily. The 48 languages are not, however, evenly distributed around the globe. As discussed in section 4 below, 22 of the languages are Austronesian and 38 of them (all but 10) are spoken in an area extending from Southeast Asia to Australia and the Pacific. Given this distribution, the sample does not provide a good basis for determining *typical* properties of plural words, since properties that are common among the languages of my sample may only be common because of the large number of Austronesian languages or because of areal phenomena. It does, however, provide an adequate basis for illustrating the range of variation in the properties of plural words.

It is worth making clear how plural words differ in meaning from English words like *many* or *some*. The basic difference is the same as the semantic difference in English between these words and the plural affix. *Many* differs from the plural affix in indicating more than simple plurality. It is not appropriate to use *many* to refer to sets consisting of only two objects, and in general, depending on the noun and the context, *many* implies considerably more than two. Although *some* can be used for sets of two objects, it differs from the plural affix in at least three ways. First, it is also used with mass nouns, as in *some snow*. Second, it also codes indefiniteness. Many of the words I describe as plural words are similar to *some* in this latter respect, simultaneously coding plurality with some discourse notion like definiteness or indefiniteness, or some notion of noun class or gender. This is discussed in section 2.2 below. However,

apart from its use with mass nouns, *some* differs from plural words in one other crucial respect. Namely, in a noun phrase like *some boys*, the plurality is indicated not only by the word *some*, but also by the plural affix on the verb. I do not treat a word as a plural word if it cooccurs with an inflectional indication of plural on the noun. A word like *some* which was the sole indication of plurality would constitute an example of a plural word in the sense I am using the term here.

One obvious question that should be addressed from the start is, how do we distinguish plural words from plural affixes? One clear piece of evidence that a morpheme is not an affix on the noun is the possibility of its being separated from the noun by other words, as in the Gbeya example in (1) above. But in many of the languages in my sample, the plural word occurs adjacent to the noun. I will not review here the criteria for distinguishing word boundaries from word-internal morpheme boundaries (see Anderson 1985 for a summary). In point of fact, I have generally not used these criteria directly, since I use the grammatical descriptions of others and generally accept their analyses at face value. What this means is that I treat a morpheme as a plural word if it is represented as a separate word in my source. Since some of the descriptions I use were not written by linguists, we cannot be sure that in some cases the morphemes I assume here are plural words might not be better treated as affixes. I assume, however, that the number of such cases is likely to be sufficiently small that it would not affect my conclusions.

Two of the morphemes I treat here as plural words are in fact clitics; although they are clearly bound morphemes, their position is defined syntactically. For example, in Cayuvava, spoken in Bolivia, plurality is expressed by a morpheme *me-* which attaches to whatever is the first word in the noun phrase:

- (3) *me-rišo rabiri*
 plur-new paddle
 'new paddles' (Key 1967: 50)

I treat such morphemes as plural words since they behave syntactically as words.

In section 1, I discuss the fact that plural words are only the most common example of a more general category, that of grammatical number words; a number of languages employ singular or dual words as well as plural words. In section 2, I discuss the categorial status of plural words in the languages in my sample, in section 3 the word-order properties of plural words, and in section 4 the geographical and genetic distribution of languages employing plural words and the typological characteristics of these languages. A list of the 48 languages, with details

relevant to various issues discussed in this paper, is provided in the Appendix.

1. Grammatical number words

In a minority of the languages in my sample, there are, in addition to plural words, words that indicate other grammatical numbers, such as singular, dual, or even trial. For example, Yapese (Austronesian) employs singular, dual, and plural words:

- (4) a. *ea rea kaaroo neey*
 sg car this
 ‘this car’ (Jensen 1977: 155)
- b. *ea gal kaaroo neey*
 dual car this
 ‘these two cars’
- c. *ea pi kaaroo neey*
 plur car this
 ‘these cars’

(The initial word *ea* in these examples is a particle which Jensen [1977] calls a ‘noun phrase connector’ and which is used in NPs in Yapese which lack an article, although it is grammatically distinct from the articles.) One might wonder what the difference is between dual words like Yapese *gal* in (4b) and numerals meaning ‘two’. Semantically there seems to be little difference, except that dual words (like dual affixes) often seem to be used more often with pairs of objects that occur naturally in sets of two, like eyes. The distinction is essentially a GRAMMATICAL one, dual words patterning grammatically with plural words, rather than with numerals. Yapese, for example, has a numeral for ‘two’ distinct from the dual word in (4b):

- (5) *l’agruw ea kaaroo*
 two car
 ‘two cars’

The examples (4b) and (5) illustrate one grammatical difference between the dual word *gal* and the numeral *l’agruw* ‘two’: the particle *ea* (described above) precedes the dual word but follows the numeral. The two constructions are not interchangeable, however: the numeral for ‘two’ cannot be used with the definite article, while the dual word can. In three languages in my sample, it is possible for the dual and the numeral for ‘two’ to cooccur, as in the following Tongan example:

- (6) ha ongo puha 'e ua
 art dual box two
 'two boxes' (Churchward 1953: 28)

Six languages in my sample employ dual words: Futuna-Aniwa, Niuean, Yapese, Tongan (all Austronesian), Djapu (Australian), and Rong (Tibeto-Burman). Except for Futuna-Aniwa, the dual words in these languages are what we might call *pure dual words*, coding nothing but dual. In Futuna-Aniwa (Dougherty 1983), there is a series of articles used to indicate specificity. Among these are a plural word which is an article *a*, as in *a rakau* 'the trees', and a dual article *ru*, as in *ru fare* 'two houses'. The dual article is apparently cognate to the numeral two, but the two words have distinct grammatical properties and can cooccur, as in

- (7) ru tagata e rua
 dual man two
 'two men' (1983: 23)

Four languages in my sample, all Austronesian, employ pure singular words, namely ones that code nothing but singular: Balawaia, Halia, Manobo, and Yapese. In many other languages, singular is also implied by articles which code other things as well. In the series of articles in Futuna-Aniwa described above, there are three singular articles corresponding to the plural and dual words mentioned. These three singular articles, all indicating specificity, are *ta*, *te*, and *ti*, the choice varying with the particular noun, as in *ta tagata* 'the man' and *ti afi* 'the fire'. These words are singular words in the sense that they are the only elements in the noun phrase that code singular, but they are not pure singular words, since they also indicate specificity.

Because of the existence of singular words and dual words, the topic of this paper might be better described as *grammatical number words*. In the clear majority of languages, however, plural words are the only grammatical number words.

2. The grammatical category of plural words

Linguistic typology has often ignored the ways languages differ in their inventories of grammatical categories and the ways languages differ in the ways meanings are mapped onto grammatical categories. For example, Greenberg (1963), in classifying languages according to their word-order typology, is quite explicit in his use of purely semantic criteria in identifying the various categories of words he assumes. In discussing the order of noun and adjective, for example, he treats as adjectives words

that express the kinds of meanings expressed by adjectives in English, even though in many of the languages in his sample, the words in question do not form a distinct category *adjective* the way they do in English. In many of these languages, the words in question form a subset of verbs or of nouns. And discussions of grammatical categories (such as Givón 1984) often focus on the underlying basis for common grammatical categories, rather than on the ways in which languages differ. And typologically oriented descriptions of languages often describe the languages using terminology from English grammar, without discussing what the internally motivated categories might be. One of the primary purposes of this study was to examine the categorial status of plural words in the different languages in my sample.

In using the term *plural word* in a cross-linguistic sense, I do not intend to imply that there is any sense in which the words in question have the same categorial status within the grammars of the individual languages that employ them, in the way that nouns in different languages can presumably be described as instances of a unitary universal grammatical category. To the contrary, it is clear that the categorial status of plural words varies considerably among the languages in my sample. In general, plural words seem to fall into a variety of different categories: numerals, articles, a minor word class containing a few other words, or a one-word minor word class. The extent to which plural words exhibit different categorial status across languages illustrates that the notion of *plural word* is at best a semantic category, apparently unlike *noun*. To what extent other categories are universal grammatical categories, like nouns, or just semantic categories, like plural words, remains to be investigated (though see Dixon 1977 for a study of adjectives).

Of the languages in my sample, I was able to come to a conclusion about the categorial status of plural words in 29 of them; this information is included in the Appendix. Even for those languages where I came to a conclusion, the conclusion should be taken as rather tentative. I suspect that in some cases my classification of a language is largely an artefact of the way in which the language is described. My decisions about the categorial status of plural words are based on the following criteria. If the plural word exhibits grammatical characteristics distinct from words in some other category, I assume that the plural word does not belong to that other category. I use the possibility of cooccurrence and position relative to other words almost exclusively as the relevant grammatical characteristics, not only because they are the ones for which evidence is most readily available, but also because they are the characteristics which provide the clearest basis for decisions as to category. For example, if the language employs articles, and if an article never occurs when the plural word occurs,

and if the plural word occurs in the same syntactic position in which an article would occur if present, then I take this to be evidence that the plural is itself an article. If, on the other hand, the language generally permits only one article per NP (as most languages do), and if the article can cooccur with the plural word, then I take this as evidence that the plural word is not an article. Admittedly such a situation is consistent with an analysis according to which the plural word is an article but constitutes a subcategory of article distinct from other articles. This sort of approach is implicit in the traditional characterization of numerals in English as adjectives. The grammar of English must distinguish numerals from other adjectives in order to capture the fact that numerals precede other adjectives. This requirement is considerably stronger than constraints on ordering among other adjectives: while *white large rabbits* is certainly strange compared to *large white rabbits*, *large four rabbits* seems considerably worse, compared to *four large rabbits*. This fact about numerals could be captured either by saying that numerals are a distinct category from adjectives, or by saying that numerals constitute a distinct subcategory of adjective. Although there are clear cases where the appeal to the notion of subcategory seems correct (say in distinguishing transitive from intransitive verbs), it is not clear in general what criteria are relevant to deciding between distinct categories as opposed to subcategories of a single category, nor is it clear what the theoretical significance of the distinction might be. In fact, under the view in recent generative theory of categories as sets of syntactic-feature specifications (see Chomsky 1970; Gazdar et al. 1985), the distinction is essentially meaningless, unless one distinguishes category features from subcategory features. At any rate, where I speak of plural words being a distinct category from other categories, the facts are often consistent with an analysis under which they are actually only a distinct subcategory of some other category. For present purposes, the crucial question is whether they are grammatically distinct or not.

2.1. *Plural words as numerals*

It seems natural that languages might indicate simple plurality (number greater than one) by a word that belongs to the same class as words indicating specific numbers, just as words meaning *many* often do. Three languages in my sample are apparent examples of languages of this sort. In Gurung, a Tibeto-Burman language of Nepal, the plural word occurs in the same syntactic 'slot' as numerals: numerals and the plural word are the only modifiers of the noun that follow it, and the description by Glover (1974) implies that plural word and numeral do not cooccur:

- (8) a. cá pxra-báe mxi jaga
 that walk-adj person plur
 'those walking people' (1974: 97)
- b. ca mxi sô-bra
 that person three-hundred
 'those three hundred people'

It should be noted that there are eleven languages in my sample in which plural word and numeral CAN cooccur. The following examples illustrate this possibility for Peñoles Mixtec.

- (9) oko kwee tee
 twenty plur man
 'twenty men' (Daly 1973: 20)

Such languages are clearly ones in which plural words do not belong to the same category as numerals.

2.2. *Plural words as articles*

In six of the languages in my sample, the plural word belongs to a category whose other members are articles. By *article* I mean a word that serves as a grammatical marker of a noun phrase. In the majority of languages such articles indicate definiteness, or some related discourse-referential notion like indefiniteness, referentiality, or specificity. They often vary as well for gender, noun class, or animacy. In some languages, the words I am terming *articles* do not vary for discourse notions like definiteness, but only for notions like gender or noun class. For example, in Khasi, a Mon-Khmer language of northeast India, singular nouns occur with one of three noun-class articles, as in

- (10) ka knthey
 fem/neut woman
 'the/a woman' (Rabel 1961: 51)

The use of the term *article* in such cases is justified in that the words in question do seem to serve as markers of NPs.

There are two kinds of languages in which plural words seem to be articles. In the first kind, plural words are articles by virtue of the fact that they simultaneously code notions like definiteness or noun class and exhibit the properties of articles as noun-phrase markers described above. In the second kind of language, the plural words are PURE PLURAL WORDS, in that they code nothing but plurality, but are also articles in the sense that they exhibit the same syntactic properties as articles in the language.

Hawaiian is an example of a language with a plural word of the first sort. The plural word *nā* is an article, as illustrated both by the fact that it occurs in article position, and by the fact that it codes definiteness: *nā* is the plural of the singular definite article *ka/ke*, as illustrated by *ke keiki* 'the child', and *nā keiki* 'the children' (Hawkins 1982: 8).

A somewhat different sort of example of language with a plural word that is also an article is Maung, an Australian language. In this language, nouns occur with an article which varies simply with the noun class of the noun.¹ The following examples illustrate two of the noun-class articles:

- (11) a. dja arargbi
class1 man
'the/a man' (Capell and Hinch 1970: 55)
- b. mada wałg
class5 tree
'the/a tree' (1970: 56)

The plural word is in the same word class as these noun-class articles, but it is a unique form and it is only used with animate nouns:

- (12) bada arargbi
plur man
'men' (1970: 56)

Since it only occurs with animate nouns, it is not a pure plural word, since it codes both plurality and animacy.

It should be noted that there are many languages not included in this study in which plurality is indicated by articles along with notions like definiteness or noun class, but in which the indication of plurality is redundant, being indicated as well by affixes on the noun. English *some* is an example of a word like this, as are plural forms of articles throughout Indo-European. I have not treated such words as plural words, viewing their plurality as an instance of agreement. The distinction is somewhat arbitrary, however. Note how spoken French has lost the plural suffixes on nouns, so that in general the article is the sole indication of plurality:

- (13) a. la pomme
[læ pɔm]
the, fem apple
'the apple'
- b. les pommes
[le pɔm]
the, plur apple
'the apples'

The French article *les* [le] is a plural word by my criteria, since it is generally the sole indication of plurality in the noun phrase. However, it is also an article, since it codes definiteness as well.

Khasi, discussed above, is an example of a language with a plural word which is an article but which does not code other article features. The plural word in Khasi is a pure plural word, but it is an article by virtue of its occurring in the same syntactic 'slot' as articles. There are two noun classes, but the distinction is neutralized in the plural. That is, there is a plural article that is used with all nouns, as in

- (14) ʔaar tllii kii miaw
 two clsfr plur cat
 'two cats' (Rabel 1961: 52)

Since the plural word *kii* is used with all nouns (in contrast to the case of Maung discussed above), it does not code animacy or noun class and hence is a pure plural word. Khasi is the only clear case in my sample of a language with plural articles that are pure plural words. There are, however, languages in which plural words are arguably distinct from articles, but in which plural words exhibit properties similar to those of articles, so that there may be reason to posit a 'macrocategory' that includes articles and plural words. The plural words in these cases are generally pure plural words. I discuss the example of Iai in section 2.4 below.

2.3. *Plural words as grammatical number words*

In section 1, I discussed languages in which there are grammatical number words other than plural words, namely singular words or dual words. In some of these languages, the grammatical number words are articles. In Futuna-Aniwa, for example, the plural and dual words occur in article position and code specificity.

But just as the position of plural words (or grammatical number words in general) in some languages may indicate that they belong to a class including numerals or articles, so too their position in other languages may indicate that they cannot belong to the same category as either of these other types of words. In Tongan, for example, plural and dual words immediately precede the noun while numerals follow the noun, so that the grammatical number words cannot belong to the same category as numerals. Articles precede the noun, but while there can be no more than one article, grammatical number words cooccur with articles, occurring between the article and the noun, as in

- (15) a. ha fanga pulu
 indef plur cow
 'some cows' (Churchward 1953: 29)
- b. ha ongo puha
 indef dual box
 'two boxes' (1953: 28)

In other words, grammatical number words are unique in Tongan in occurring in the syntactic context Art___Noun. Hence grammatical number words constitute a category of their own in Tongan. Tongan is one of five languages in my sample in which the plural word belongs to a distinct class of grammatical number words.

2.4. Plural words as a one-word minor category of their own

In 12 of the 29 languages in my sample for which I was able to determine the category of plural words, the plural word exhibits unique properties, so that it apparently constitutes a minor category containing a single member. In Mixe, a language in the Mixe-Zoquean family spoken in Mexico, modifiers of nouns normally precede the noun, except for the plural word and relative clauses, which follow:

- (16) he pi' miš̃ ʔaHkš̃
 the little boy plur
 'the little boys' (Van Haitisma and Van Haitisma 1976: 74)

The plural word clearly forms a category of its own.

In Yoruba, the plural word is the only modifier that can precede the noun and would thus appear to be a clear instance of a plural word constituting a one-word minor category:

- (17) àwọ̀n ọ̀kúnrin métà yí
 plur man three this
 'these three men' (Rowlands 1969: 42)

However, the plural word also serves as the emphatic third plural pronoun. Hence it is possible that (17) should be analyzed with *àwọ̀n* as a pronoun head, with *ọ̀kúnrin métà yí* a noun phrase in apposition, with a literal meaning of 'they, these three men'. Alternatively, the construction may have originally had such an analysis but may have become reanalyzed so that *àwọ̀n* is synchronically now a plural word.

Yoruba is not the only language in which it is likely that the plural word arose from a plural pronoun. In Chamorro the plural word *siha* is identical to the third plural pronoun:

- (18) a. man-estudiante siha
 plur-student they
 'They are students' (Topping 1973: 234).
 b. man-metgot i estudiante siha.
 plur-strong the student plur
 'The students are strong.'

Although the correct analysis for *siha* in (18b) is not entirely clear, it appears to be necessary to analyze it as grammatically distinct from the third plural pronoun, and as belonging to a one-word category.

Another example of a language with a plural word that apparently arose from a plural pronoun is Ngarinjin, a non-Pama-Nyungan Australian language, in which the plural word is homophonous to one of the forms of the third plural subject verbal prefix:

- (19) a. mandjan biri
 stone plur
 'stones' (Coate and Oates 1970: 104)
 b. biri-ma-ra
 they-say-past
 'they said' (1970: 104)

Since the form *biri* as a separate word seems to occur only as the plural word, there seems to be no basis for analyzing the plural word as a pronoun synchronically. But that seems to be a likely diachronic source. The plural word in Ngarinjin is also a fairly clear case of a plural word forming a one-word minor category: it occurs as the last word of the noun phrase, except for a possible phrase-final emphatic clitic or noun phrase in apposition. Articles ALWAYS precede the noun, while adjectives and numerals NORMALLY precede. The only other class of modifiers that consistently follow the noun is class markers, but these apparently precede other postnominal modifiers.

The plural word in Iai, an Austronesian language spoken in the Loyalty Islands, also seems to be an instance of a one-word minor category but is described by Tryon (1968b) as being part of the article:

- (20) ke je θan.
 indef plur chief
 'some chiefs' (1968b: 66)

Tryon (1968b) describes the sequence *ke je* as an article, although he represents it as a sequence of two words. In fact, each of the two words here can occur independently, as in *ke θan* 'a chief' and *je θan* 'the chiefs'. Whether there is any justification for considering the sequence *ke je* in (26)

as a constituent is unclear. Of course, even if the sequence of article and plural word forms a constituent, it does not follow that they are of the same category. The plural word might be a modifier of the article. But it is certainly possible that both *ke* and *je* should be considered members of the same category, albeit ones that must be distinguished in order to guarantee that they occur in the right order. In such a case, the plural word would have to be treated as a distinct category in the sense of this paper (see the discussion at the beginning of section 2) but might be more accurately analyzed as a distinct subcategory of article. The same possibility exists for a number of other languages in my sample, particularly among the Austronesian languages.

2.5. *Plural words as a multiword minor category of their own*

In two languages in my sample, there is more than one plural word and the plural words seem to form a distinct grammatical category. The first language is Vietnamese, which has a large number of plural particles with different nuances of meaning. According to the description by Binh (1971), there are 21 particles she calls 'simple plural particles' and 27 'compound plural particles' consisting of sequences of two or three particles. None of these particles is simply glossed 'plural', but rather they are assigned such glosses as 'all', 'many', 'all (vague)', 'a few', and 'some'. My interpretation of their description, however, is that at least some of these particles are essentially indicators of plural number. The particle *nhũ'ng*, for example, is glossed 'many' but is described as one of the two most commonly used plural particles and seems to be essentially an indication of plural number in the examples cited:

- (21) a. *nhũ'ng con chim quý*
 plur anim bird precious
 'precious birds' (1971: 114)
- b. *Lan ăn nhũ'ng sáu con tôm.*
 Lan eat plur six anim shrimp
 'Lan ate six shrimps.'

Note how *nhũ'ng* cooccurs with a numeral in (21b), a common feature of plural words, as discussed below, but not a common feature of words whose function is similar to 'many' in English. For these reasons, I treat it as a plural word.

Since plural words in Vietnamese can cooccur with numerals, they must be a distinct category. Nevertheless, these plural words actually bear considerable similarity to numerals. Binh (1971) describes the initial slot

in a noun phrase as containing 'a plural particle and/or a cardinal numeral'. Usually only one or the other occurs, but 'in special cases' both can occur, and when they do, the plural word precedes the numeral, as in (21b). Although it is possible that numerals and plural particles belong to a single macrocategory, they presumably must be distinguished in order to account for their order when they cooccur.

Hawaiian is a second example of a language in which plural words seem to form a multiword minor category. There are six plural words, three of which Elbert and Pukui (1979) describe as 'paucal' since they are not used with large numbers. A fourth is only used for more than two. Hawaiian is also unusual in having an additional plural word that does not belong to the same category as these other plural words. This further plural word, *nā*, is clearly an article, as discussed in section 2.2, and can cooccur with the nonarticle plural words, as in

- (22) *nā* *mau lio*
 plur, def plur horse
 'the horses' (Elbert and Pukui 1979: 157)

2.6. *Miscellaneous categories of plural words*

There are two languages in my sample in which the category of plural words does not seem to fit any of the possibilities discussed so far. In both languages, the plural word belongs to a minor category of miscellaneous noun modifiers.

In Hixkaryana (a Carib language), the plural word belongs to a closed class which Derbyshire (1979) calls *modifying particles*. There are four other words in this category, a diminutive *txko* meaning 'small' or 'good', as in *kana txko* 'small fish'; an augmentative meaning 'big' or 'bad'; a word indicating loss of value; and a word which means either 'dead' or 'set of', depending on what noun it modifies, as in *royon heno* 'my dead mother' and *torono heno* 'flock of birds'.

In Gbeya (an Eastern language within the Adamawa-Eastern branch of Niger-Congo), the plural word also belongs to a closed class of words that serve as noun modifiers. The other three words express the meanings 'even, just, also'; 'big, real'; and 'a, some, certain, few'. The last of these has the meaning of an article, so we might say that the plural word in Gbeya belongs to the same category as the article, except that the other two members require that we find some other way to characterize the category as a whole. Like the corresponding category in Hixkaryana, the category contains a word meaning 'big'.

The occurrence of plural words in the same category as words meaning 'big' or 'small' is probably best understood as indicating, not that the plural word is some kind of adjective, but rather that the words translated 'big' or 'small' are better viewed as instances of grammatical morphemes, much as a plural word is more of a grammatical morpheme than is a word meaning 'many', and a word indicating past tense is more of a grammatical morpheme than is an adverb meaning 'previously'. In other words, although the difference between grammatical morphemes and 'content' morphemes is essentially a semantic distinction, languages may differ in exactly where they draw the line. The semantics of words meaning 'big' and 'small' is somewhere between prototypical grammatical morphemes and prototypical content morphemes (though perhaps closer to the latter), and so some languages may express their meaning by means of grammatical morphemes. After all, plural words indicate the size of a set, just as words meaning 'big' or 'small' indicate the size of an individual or object.

It is thus worth noting that in a number of other languages in my sample, the category to which plural words belong also contains a diminutive word. The plural word in Khasi is an article, but there is also a diminutive article that can be used with small objects. In Nung (Saul and Wilson 1980), a Kam-Tai language, the category of the plural word is not entirely clear, but it is one of a number of words that exhibit similarity to numerals. Among the other words like this is a word meaning 'small amount' or 'little'. In Hawaiian, one of the plural words is one which is described as 'paucal' because it implies 'several but not a great many' (Elbert and Pukui 1979: 162). But it can also imply 'small' or 'unimportant', though still meaning plural at the same time. And in Futuna-Aniwa, in which the plural and dual words are articles, there is also a diminutive article, as in *ji qajanea* 'small container'. That *ji* is an article is clear since its use precludes the use of another article.

We see that plural words are very heterogeneous in their categorial properties. Although we may speak of plural words as a semantic category, there is little basis for using the term as a syntactic category, at least applied to the full range of words I have called plural words here. At best, the term would be appropriate as a universal label for the one-word minor category of plural words. Alternatively, we might speak of a universal category of grammatical number words and think of one-word categories of plural words as instances of this more general category. We might further think of cases in which plural words are numerals or articles as analogous to cases in which adjectives are verbs, as instances in which two universal categories are merged in a given language into a single category.

3. Word-order properties of plural words

There are two kinds of questions I will address in this section. First, languages differ as to whether plural words precede the noun or follow the noun; to what extent does the order of noun and plural word correlate with the order of other pairs of elements, like the order of object and verb? Second, what generalizations can be made about the order of plural words with respect to other modifiers that occur on the same side of the noun? That is, to what extent do plural words occur between other modifiers and the noun, and to what extent do other modifiers occur between the plural word and the noun?

Both orders of plural word and noun are common among the languages in my sample: 28 place the plural word before the noun, while 20 place it after the noun. These figures are misleading, however, since 19 of the 28 languages with prenominal plural words are Austronesian. One way to control for this sort of genetic bias is to count genetic groups rather than languages (see Dryer forthcoming). Using groups roughly comparable to the subfamilies of Indo-European, we find that there are 14 groups containing languages in which the plural word follows the noun and 10 groups in which it precedes.

The order of plural word and noun exhibits a clear correlation with the order of verb and object. Given the widely held view that modifiers more often precede the noun in OV languages and follow the noun in VO languages, we might expect plural words to do likewise. But in fact they exhibit precisely the opposite pattern, as shown by the following table, the numbers again representing language groups of the sort described above:

	Plur-N	N-plur
OV	0	11
VO	10	2

All 15 OV languages in my sample (spread over 11 groups) place the plural word after the noun. But only two out of 29 VO languages do likewise. These two exceptions are Agta and Chamorro, both Austronesian languages. The other 18 VO Austronesian languages in my sample place the plural word before the noun. Significantly, the one OV Austronesian language in my sample places the plural word after the noun. This language is Balawaia, spoken in Papua New Guinea.

Why should plural words tend to follow the noun in OV languages and precede in VO languages? One possibility is that plural words and articles should not be considered modifiers of nouns but rather the heads of noun phrases. Recent proposals within a variety of frameworks (see Vennemann and Harlow 1977; Hudson 1984; Abney 1987) have analyzed articles as

the heads of noun phrases. If the same idea were extended to plural words, then the correlation we have seen would be conforming to a tendency for VO languages to be head-initial, OV languages head-final. In languages with both articles and plural words, the combination might be the head.

On the other hand, I have shown elsewhere (Dryer 1986, 1988a) that there is in fact no general tendency for modifiers to follow the noun in VO languages and to precede in OV languages. Although it is true to a limited extent for genitives and relative clauses, there is no such tendency for adjectives, demonstratives, numerals, or articles. In fact articles and numerals exhibit a trend in precisely the opposite direction. Though this trend might be accounted for by analyzing articles and numerals as heads, an alternative approach suggested by Dryer (1988a, 1988b) is that the word-order correlations in general reflect a tendency for OV languages to be left-branching and for VO languages to be right-branching. If plural words are analyzed as combining with phrases, namely the noun plus certain of its modifiers, then the correlation we have observed would be accounted for: plural words precede the noun in VO languages, because the resulting structure is right-branching, and follow the noun in OV languages, because the resulting structure is left-branching. While more detailed analysis of the constituent structure of noun phrases containing plural words in a variety of languages would be required to test this hypothesis, the fact (discussed below) that plural words tend to occur outside adjectives (rather than between the adjective and the noun) lends plausibility to such an approach.

The strong correlation we have seen between the order of plural word and noun and the order of verb and object is surprising for another reason. I showed in section 2 that the syntactic category of plural words varies considerably among the languages of the world: although the class is well defined semantically, it does not form a syntactic category across languages. Despite this, the correlation with the order of verb and object exists independently of the particular grammatical category of plural words. In other words, we can predict that a plural word in a VO language will probably precede the noun, regardless of whether it belongs to the same category as numerals or articles, or a class of its own, or some other miscellaneous category.

In view of the semantic similarity between numerals and plural words and of the fact that some of these plural words belong to the same category as numerals, as discussed in section 2.1, we might expect a strong correlation between the order of plural word and noun and the order of numeral and noun. But the following table shows that although there is a trend in that direction, the correlation is surprisingly weak:

	NumN	NNum
PlurN	8	4
NPlur	5	7

In other words, the order of plural word and noun correlates much more strongly with the order of verb and object than it does with the order of numeral and noun. It is not at all clear why this might be so.

Let us turn now to the question of how plural words are ordered with respect to other modifiers occurring on the same side of the noun. In languages in which plural words are in the same category as articles, plural words tend to occur in NP-peripheral position, as articles in general do. An exception to this pattern is Khasi, in which articles (including plural words) occur adjacent to the noun, within demonstratives and numerals:

- (23) *ʔaar tllii kii miaw*
 two clsfr plur cat
 'two cats' (Rabel 1961: 52)

It is also the case, however, that in the majority of languages in my sample in which plural words are articles, the plural word, like other articles, occurs adjacent to the noun, since other modifiers occur on the opposite side of the noun.

Of greater interest is the position of plural words in languages in which they are neither articles nor numerals. Do they occur outside other modifiers or inside other modifiers? Both possibilities do in fact occur, but to a certain extent, it depends on the type of modifier.

In the Austronesian languages in my sample in which there is an article which occurs on the same side of the noun as the plural word, the plural word always occurs inside the article, even in languages for which the category of the plural word is unclear. This is illustrated by the Tongan example in (15a) above. In Vietnamese, in contrast, the plural words occur outside two words that might be analyzed as articles:

- (24) *nhữ'ng cái con ngựa đen*
 plur ident anim horse black
 'the black horses' (Binh 1971: 121)

Binh (1971) refers to the word *cái* in this example as an identifier, and it seems to function like an article. The word *con* is a noun-class article or general classifier indicating animacy. In Djapu, the grammatical number words are unique in immediately following the noun. Other modifiers that follow the noun apparently occur outside the plural word. These include numerals, genitives, and (apparently) adjectival modifiers. In Mixe, the only modifier other than the plural word to follow the noun is relative

clauses; these follow the plural word. In all these cases except Vietnamese, the plural word is occurring between other modifiers and the noun.

Nevertheless, the case of Djapu just mentioned is the only case I am aware of in which the plural word occurs obligatorily between an adjective and a noun when they occur on the same side of the noun.² In all other languages in my sample in which the adjective and plural word occur on the same side of the noun (for which I have the relevant data), the adjective occurs between the plural word and the noun. This is true for Kimaghama, a southwest New Guinea language:

- (25) do mamu ragha
tree big plur
'big trees' (Boelaars 1950: 33)

The same is true for Cayuvava, in which the plural word is a clitic which attaches to the first word in the noun phrase:

- (26) me-rišo rabiri
plur-new paddle
'new paddles' (Key 1967: 50)

If the example in (1) early in this paper is representative, the plural word in Gbeya (which belongs to a closed class of modifiers) precedes adjectives. In Bawm (Tibeto-Burman), the plural word (which is a numeral) occurs outside, not only adjectives, but relative clauses:

- (27) mipâ hawlh kho lo tlâ
man speak can not plur
'men who cannot speak' (Reichle 1981: 45)

Finally, in Balawaia (Papua Austronesian), there are singular and plural words which appear as clitics on the last word of the noun phrase, except with numerals, which follow the clitic. Thus if there is an adjective and a numeral, the clitic occurs between the adjective and the numeral, attached to the adjective:

- (28) belema bara-ria taulatoitoi
python big-plur six
'six big pythons' (Koilia 1975: 124)

It seems, therefore, that when plural words and adjectives occur on the same side of the noun, the plural word tends to occur outside the adjective.

On the other hand, although there are too few cases to draw firm conclusions, it seems that in general plural words occur inside numerals more often than they occur inside adjectives. (28) above illustrates that the plural word occurs between the numeral and the noun in Balawaia.

Example (9) above illustrates the same for Peñoles Mixtec. If the following example is typical, the same is true of Tahitian:

- (29) 'e toru tau na ta'ata
 three plural person
 'three people' (Tryon 1970: 17)

In general, it seems that there is greater variation in the position of plural words in relation to other modifiers than there is among other modifiers. Nevertheless, the most common position is apparently outside adjectives, and in the general vicinity of numerals and articles.

4. Characteristics of languages with plural words

Plural words are found in a small minority of the languages of the world. What characterizes these languages, either in terms of their genetic and geographical distribution, or in terms of their typological characteristics? Although plural words are found in languages from different parts of the globe, certain clear geographical patterns are worth mentioning. Of the 48 languages in my sample exhibiting plural words, 38 are spoken in an area that extends from southeast Asia, including Tibeto-Burman, Tai, and Mon-Khmer languages, down into 'Australasia', including Australia, New Guinea, and Austronesia (the islands of Indonesia, the Philippines, and the Pacific). In fact, 22 of these languages are Austronesian; the others in this area include three non-Austronesian Papuan, four Australian, five Tibeto-Burman, three Mon Khmer, and one Tai language. The ten languages outside this area include two Niger-Congo languages, two languages in Mexico, one in Nicaragua (Miskito), and five in South America. Since my overall sample includes fewer languages from South America than from other areas of the world, the number of languages in my sample from this area that employ plural words may be indicative of a second, weaker, areal pattern. Three of the five languages in South America are spoken in Bolivia, the other two at quite a distance, in different parts of Brazil. A list of the languages, with details relevant to various issues discussed in this paper, is provided in the Appendix.

Why should plural words be so common in the large area of southeast Asia and Australasia? Among the possible explanations are remote genetic relations in this area, diffusion of plural words as a grammatical characteristic, diffusion of some other more basic typological feature that may increase the likelihood of a language employing plural words, or even, at least to a partial extent, simple coincidence. It might also be due to a combination of these.

The possibility of remote genetic relationships in the area has been suggested by Benedict (1975), for example, who has proposed that Austronesian and Tai languages belong to a grouping he calls Austro-Tai. There have also been suggestions that Austronesian is related to Mon-Khmer. Given the likelihood that speakers of Austronesian languages originated from the mainland of southeast Asia or China, some remote genetic relationships in this area are not unlikely, although they are not likely to include the languages of Australia or New Guinea. Whether remote genetic relationships between the other languages of this area could directly account for the high incidence of plural words is more questionable. It does not seem likely that the plural words in the various languages in this area are descendents of a plural word in some remote protolanguage. In fact, although I am not competent to determine the historical relatedness of the plural words within the Austronesian languages in my sample, I suspect that they have a number of independent origins. The plural word in Chamorro, for example, is apparently a recent development, evolving from the third plural pronoun. And although the plural words in a number of the Philippine languages are transparently related (*manga* in Tagalog, Bikol, and Mamanwa, *menge* in Manobo), the plural word in Agta is *kid* and exhibits rather different grammatical properties, for example, following the noun rather than preceding it.

This leads naturally to the question of the diachronic origin of plural words. Although I have little substantive to offer in the way of an answer, a number of plausible possibilities come to mind. I have already noted a number of instances in which the third plural pronoun is the apparent source, although the precise grammatical mechanism of change remains unclear. Plural articles may arise from agreement after the plural marking on the noun is lost, as seems to be happening in French, as discussed above. Plural words that are not articles may arise from plural articles that cease to be articles due to the loss of their article characteristics. They may arise from words meaning *many* or *all*, from nouns meaning *group* or *set*, or from classifiers. Although I know of no clear example of this last possibility, and although I know of no clear instances in which plural words are synchronically classifiers, the area of southeast Asia and Austronesia in which the majority of the languages in my sample are spoken is also an area in which classifiers are common. Whatever the explanation for the common use of classifiers throughout this area (either genetic or areal), a diachronic relationship between classifiers and plural words might explain the high frequency of plural words in this area. There are languages in this area which sometimes indicate plurality through the classifier system. For example, in Thai, a collective noun meaning 'group' can occur in the classifier slot with the effect of indicating plural:

- (30) a. naŋsǎu leem níi
 book clsfr this
 'this book'
- b. naŋsǎu làw/phuak níi
 book group this
 'these books'

I do not know whether these words can occur without an accompanying modifier like a demonstrative. If they can, then I would consider them plural words. Similarly, in Mandarin, there is a classifier *xiē* that signals plurality but which must be accompanied by a word like a demonstrative, as in

- (31) nèi-xiē kǒuhào
 that-plur slogan
 'those slogans' (Li and Thompson 1981: 112)

However, it can occur with the numeral *yi* 'one', as in

- (32) yì-xiē wánjù
 'one'-plur toy
 'some toys' (1981: 112)

Clearly *yi* does not mean 'one' in this context, so the word *yì-xiē* might be considered a plural word. Li and Thompson say (1981: 112) that *yì-xiē* 'means "several"'. But some speakers judge that it could be used even in cases in which only two are involved. But if it can be used for any number greater than one, then it is a plural word. It seems to be used less often in Mandarin than many of the plural words discussed in this paper. At any rate, even if neither of these words in Thai or Mandarin is a plural word, they suggest that classifiers are a plausible diachronic source for plural words.

The use of classifiers is one typological characteristic common throughout the area in which plural words are common. But another more basic one is a tendency toward isolating or analytic structure, an absence of inflectional morphology. This is a well-known feature of Tai and Mon-Khmer languages and, although not as extreme, is also largely true of Austronesian languages. Outside this area, Yoruba is a clear example of an isolating language that employs a plural word. That isolating languages should be more likely to employ plural words is hardly surprising. Since they lack inflectional morphology, plurality must be indicated either by plural words or not at all. And since plural affixes are perhaps the most common type of inflectional affix, we might expect that plural words should tend to be used commonly in languages that lack inflectional affixes altogether.

In fact, however, this expectation is not realized. Out of the 42

languages for which I have been able to determine the relevant characteristics, 27 employ verbal affixes indicating either the person/number of the subject or tense/aspect. Only 15 languages lack such inflectional affixes on the verb. And 13 of these are either Austronesian or spoken in southeast Asia. The other two are Yoruba and Kimaghama (spoken in New Guinea). Of the ten languages outside southeast Asia and Australasia, only Yoruba lacks inflectional affixes on verbs. Hence, although the isolating nature of languages in southeast Asia and Australasia may be a contributing factor to the high frequency of plural words in this area, being isolating is clearly not a necessary condition for a language to employ plural words. One question that cannot be answered by the data I currently have available is whether plural words are more common in southeast Asia and Australasia than they are in isolating languages elsewhere in the world. My impression is that they are more common in this area, since Yoruba is the only isolating Niger-Congo language in which I have found plural words. But this question remains to be examined systematically.

Although the majority of languages in my sample with plural words employ inflectional affixes on verbs of the sort described above, the situation is different with inflectional affixes on nouns. Of the 43 languages for which I have been able to obtain the relevant data, only five employ case affixes on nouns. This suggests that it might be useful to distinguish languages which are isolating with respect to verbs, or isolating in general. We might then suggest that languages with plural words tend to be isolating with respect to nouns, that is, lacking inflectional affixes on nouns.

However, although only five of the languages with plural words in my sample employ case affixes, there are 20 languages which employ pronominal possessive affixes, ones indicating the person/number of the possessor of the noun. Hence it is not true that languages with plural words tend to be isolating with respect to the noun. The distinction between cases affixes and pronominal possessive affixes relates to Nichols's (1986) distinction between *head-marking* languages and *dependent-marking* languages.¹ In the former type of language, grammatical heads are marked with inflectional affixes, often indicating properties of the dependent(s). In the latter type of language, dependents are marked with inflectional affixes, often ones indicating the specific relationship the dependent bears to the head. Now the use of case affixes is typical of dependent-marking languages, since they indicate the relationship of a dependent nominal to a verb (or other head). Pronominal possessive affixes, on the other hand, are a feature of head-marking languages since they are an instance in which a head (the possessed noun) is marked for features of the dependent

(the possessor). Hence it appears that plural words are more common in head-marking languages than they are in dependent-marking languages. Why this should be so is not clear. Presumably it is a reflection of an opposing tendency for plural morphemes to occur as affixes in dependent-marking languages, so the generalization might more accurately be stated as saying that plural morphemes are realized as separate words rather than as affixes more often in head-marking languages than in dependent-marking languages. But why this should be so is not clear, since plural morphemes do not indicate a head-dependent relationship. I have no explanation to offer for this apparent generalization.

To sum up, it seems that plural words are most commonly found in languages which are isolating or head-marking. But it should be emphasized that the inverse of this is not the case: because of the relative infrequency of plural words among the languages of the world, it seems that it is very common for both isolating languages and head-marking languages to lack plural words.

5. Conclusion

Many of the conclusions of this paper are rather tentative. The discussion in section 2, on the category of plural words in different languages, suffers from the fact that grammatical descriptions are not consistent in how they categorize words, and from the fact that the theory of grammatical categories underlying many descriptions is obscure. This is an area that has been rather neglected, especially in typological work. For most of the languages discussed in this paper, the grammatical properties of plural words have been only partly described; more detailed examination of their properties would probably be revealing. Although I have discussed a variety of explanations for the high frequency of plural words among the languages of southeast Asia and Australasia, my suggestions are at best speculative, and the question remains unanswered. A clearer understanding of the diachronic origin (or origins) of plural words is necessary in order to better understand their synchronic properties. The clearest empirical result in this paper is the fact that plural words exhibit a strong tendency to precede the noun in VO languages and follow in OV languages, exactly the opposite of what widely held beliefs might lead us to expect.

Received 25 May 1988
Revised version received
14 February 1989

State University of New York
at Buffalo

Appendix

This appendix includes a list of the 48 languages with plural words that form the basis for this study. The categories in the sixth column are (with corresponding section in this paper) numeral (sect. 2.1), article (sect. 2.2), grammatical number words (sect. 2.3), unique (that is, plural word forms one-word category; sect. 2.4), plural words (multiword category; sect. 2.5), miscellaneous (sect. 2.6), and unclear (insufficient information in source).

Table A. *The languages in the study*

Language name	Family	Location	Order of plural, noun	Order of object, verb	Category of plural word	Source
Agta	Austronesian	Philippines	NPI	VO	unique	Healey (1960)
Apinaye	Ge	Brazil	NPI	OV	unclear	Callow (1962)
Aranda	Pama-Nyungan	Australia	NPI	unclear	unclear	Strehlow (1944)
Balawaia	Austronesian	Papua	NPI	OV	gram. number	Koilia (1975)
Bawm	Tibeto-Burman	Burma	NPI	OV	numeral	Reichle (1981)
Bikol	Austronesian	Philippines	PIN	VO	unclear	Mintz (1971)
Cayuvava	Equatorial	Bolivia	PIN	VO	unique	Key (1967)
Chacobo	Pano	Bolivia	NPI	OV	unclear	Prost (1967)
Chamorro	Astronesian	Pacific	NPI	VO	unique	Topping (1973)
Chingpaw	Tibeto-Burman	Burma	NPI	OV	unclear	Hertz (1917)
Dafa	Tibeto-Burman	NE India	NPI	OV	unclear	Hamilton (1900)
Dehu	Austronesian	Pacific	PIN	VO	unclear	Tryon (1968a)
Djapu	Pama-Nyungan	Australia	NPI	OV	gram. number	Morphy (1983)

Table A. (continued)

Language name	Family	Location	Order of plural, noun	Order of object, verb	Category of plural word	Source
Easter Island	Austronesian	Pacific	PIN	VO	unique	Chapin (1978)
Esecija	Tacana	Bolivia	NPI	OV	unclear	Shoemaker and Shoemaker (1967)
Futuna-Aniwa	Austronesian	Pacific	PIN	VO	article	Dougherty (1983)
Gbeya	Niger-Congo	Central Africa	PIN	VO	misc	Samarin (1966)
Bossangoa	E New Guinea	Papua	NPI	OV	unique	Dunn (1974)
Gorontalo	High. Tibeto-Burman	Nepal	NPI	OV	numeral	Glover (1974)
Halia	Austronesian	Pacific	PIN	VO	gram. number	Allen and Allen (1965)
Hawaiian	Austronesian	Pacific	PIN	VO	plural words article	Elbert and Pukui (1979)
Hixkaryana	Carib	Brazil	NPI	OV	misc	Hawkins (1982)
Iai	Austronesian	Pacific	PIN	VO	unique	Derbyshire (1979)
Khasi	Mon Khmer	NE India	PIN	VO	article	Tryon (1968b)
Kimghama	Kolopom	Papua	NPI	OV	unclear	Rabel (1961)
Mamanwa	Austronesian	Philippines	PIN	VO	unclear	Boelaars (1950)
Manobo	Austronesian	Philippines	PIN	VO	unclear	Miller (1976)
Maung	Iwaidjan	Australia	PIN	VO	article	Elkins (1970)
						Capell and Hinch (1970)

(one plural word is article, others are distinct category)

Miskito	Macro-Chibchan	Nicaragua	NPI	OV	unclear	Adam (1964 [1891])
Mixe	Mixe-Zoquean	Mexico	NPI	unclear	unique	Van Haitma and Van Haitma (1976)
Mixtec (Peñoles) Ngarinjin	Oto-Manguean Wororan	Mexico	PIN	VO	unique	Daly (1973)
Niuean	Austronesian	Australia	NPI	unclear	unique	Coate and Oates (1970)
Nung	Tai	Pacific Vietnam	PIN	VO	article	Seiter (1980)
Rong	Tibeto-Burman	Sikkim	NPI	OV	unclear	Saul and Wilson (1980)
Sa'a	Austronesian	Pacific	PIN	unclear	article	Mainwaring (1876)
Siroi	Madang	Papua	NPI	OV	unclear	Ivens (1918)
Stieng	Mon Khmer	Vietnam	PIN	VO	unique	Wells (1979)
Tagalog	Austronesian	Philippines	PIN	VO	unique	Miller (1976)
Tahitian	Austronesian	Pacific	PIN	VO	unclear	Schachter and Otanes (1972)
Tboli	Austronesian	Philippines	PIN	VO	numeral	Tryon (1970)
Tigak	Austronesian	Pacific	PIN	VO	unclear	Porter (1977)
Toba	Austronesian	Indonesia	PIN	VO	unclear	Beaumont (1979)
Batak Tolai	Austronesian	Pacific	PIN	VO	unclear	Van der Tuuk (1971 [1864])
Tongan	Austronesian	Pacific	PIN	VO	gram. number plural words	Franklin et al. (1974)
Vietnamese	Mon Khmer	Vietnam	PIN	VO	gram. number	Churchward (1953)
Yapese	Austronesian	Pacific	PIN	VO	gram. number	Binh (1971)
Yoruba	Niger-Congo	Nigeria	PIN	VO	unique	Jensen (1977)
						Rowlands (1969)

Notes

- * I am indebted to the Social Sciences and Humanities Research Council of Canada for Research Grants 410-810940, 410-830354, and 410-850540, which supported the research for this paper. Correspondence address: Department of Linguistics, State University of New York, Buffalo, NY 14260, USA.

The following abbreviations are used in this paper:

adj	adjective
anim	animate
art	article
clsfr	classifier
def	definite
fem	feminine
ident	identifier
indef	indefinite
neut	neuter
plur	plural
sg	singular

1. The article is not obligatory, however, its presence at least correlating with definiteness or specificity. Capell and Hinch (1970) note that use of the article usually has the effect of making the noun phrase definite. But they also note exceptions:

- (1) *ɲanalagbalwargi dja wurwur mandjawag.*
I, shall, buy classl new knife
'I shall buy a new knife' (1970: 96).

The article is used here, even though the noun phrase is not only indefinite but nonspecific.

2. It should be stressed that throughout this section, I use the term 'adjective' as it is generally used in the Greenbergian word-order tradition, namely as a label for words that, like adjectives in English, express stative properties and modify nouns. In many languages, the words in question do not form a distinct category the way they do in English, being either verbs or nouns.

References

- Abney, Stephen Paul (1987). The English noun phrase in its sentential aspect. Unpublished dissertation, MIT.
- Adam, Lucien (1964 [1891]). *Langue Mosquito*. Paris: J. Maisonneuve. (Reprint Nendeln/Liechtenstein: Kraus.)
- Allen, Jerry, and Allen, Janice (1965). *Halia Language Course*. Port Moresby, Papua: Summer Institute of Linguistics.
- Anderson, Stephen A. (1985). Inflectional morphology. In *Language Typology and Syntactic Description*, vol. 3, Timothy Shopen (ed.). Cambridge: Cambridge University Press.
- Beaumont, C. H. (1979). *The Tigak Language of New Ireland*. Pacific Linguistics Series B, No. 58. Canberra: Department of Linguistics, Research School of Pacific Studies, Australian National University.

- Benedict, Paul K. (1975). *Austro-Thai Language and Culture*. New Haven: Human Relations Areal Files Press.
- Binh, Duong Thanh (1971). *A Tagmemic Comparison of the Structure of English and Vietnamese Sentences*. The Hague: Mouton.
- Boelaars, J. H. M. C. (1950). *The Linguistic Position of South-Western New Guinea*. Leiden: Brill.
- Bunn, Gordon (1974). *Golin Grammar*. Workpapers in Papua New Guinea Languages, vol. 5. Ukarumpa, Papua New Guinea: Summer Institute of Linguistics.
- Callow, John Campbell (1962). The Apinaye language: phonology and grammar. Unpublished Ph.D. thesis, University of London.
- Capell, A., and Hinch, H. E. (1970). *Maung Grammar*. The Hague: Mouton.
- Chapin, Paul G. (1978). Easter Island: a characteristic VSO language. In *Syntactic Typology*, Winfred P. Lehmann (ed.). Austin: University of Texas Press.
- Chomsky, Noam (1970). Remarks on nominalization. In *Readings in English Transformational Grammar*, R. Jacobs and P. Rosenbaum (eds.). Waltham, Mass.: Blaisdell. (Reprinted 1972 in *Studies in Semantics in Generative Grammar*. The Hague: Mouton.)
- Churchward, C. Maxwell (1953). *Tongan Grammar*. London: Oxford University Press.
- Coate, H. H. J., and Oates, Lynette (1970). *A Grammar of Ngarinjin*. Australian Aboriginal Studies, No. 25. Canberra: Australian Institute of Aboriginal Studies.
- Daly, John P. (1973). *A Generative Syntax of Peñoles Mixtec*. Norman, Okla.: Summer Institute of Linguistics.
- Derbyshire, Desmond (1979). *Hixkaryana*. *Lingua Descriptive Studies* 1. Amsterdam: North-Holland.
- Dixon, Robert M. W. (1977). Where have all the adjectives gone? *Studies in Language* 1, 19–80. (Reprinted 1982 in *Where Have All the Adjectives Gone? And Other Essays in Semantics and Syntax*. New York: Mouton.)
- Dougherty, Janet W. D. (1983). *West Futuna-Aniwa: An Introduction to a Polynesian Outlier Language*. University of California Publications in Linguistics, vol. 102. Berkeley: University of California Press.
- Dryer, Matthew S. (1986). Word order consistency and English. In *Proceedings of the Second Annual Pacific Linguistics Conference*, S. Delancey and R. Tomlin (eds.). Eugene: University of Oregon.
- (1988a). Object-verb order and adjective-noun order: dispelling a myth. *Lingua* 74, 77–109.
- (1988b). Universals of negative position. In *Studies in Syntactic Typology*, M. Hammond, E. Moravcsik, and J. Wirth (eds.). Amsterdam: Benjamins.
- (forthcoming). Large linguistic areas and language sampling. *Studies in Language*.
- Elbert, Samuel H., and Pukui, Mary Kawena (1979). *Hawaiian Grammar*. Honolulu: University Press of Hawaii.
- Elkins, Richard E. (1970). *Major Grammatical Patterns of Western Bukidnon Manobo*. Norman, Okla.: Summer Institute of Linguistics.
- Franklin, Karl J., et al. (1974). *Tolai Language Course*. Language Data, Asian-Pacific Series No. 7. Huntington Beach, Calif.: Summer Institute of Linguistics.
- Gazdar, Gerald, Klein, Ewan, Pullum, Geoffrey, and Sag, Ivan (1985). *Generalized Phrase Structure Grammar*. Cambridge: Harvard University Press.
- Givón, Talmy (1984). *Syntax: A Functional-Typological Introduction*, vol. 1. Amsterdam: Benjamins.
- Glover, Warren W. (1974). *Sememic and Grammatical Structures in Gurung (Nepal)*. Norman, Okla.: Summer Institute of Linguistics.
- Greenberg, Joseph H. (1963). Some universals of grammar with particular reference to the

- order of meaningful elements. In *Universals of Language*, Joseph Greenberg (ed.). Cambridge, Mass.: MIT Press.
- Hamilton, R. C. (1900). *An Outline Grammar of the Dafta Language*. Shillong: Assam Secretariat Printing Office.
- Hawkins, Emily A. (1982). *Pedagogical Grammar of Hawaiian: Recurrent Problems*. Manoa: Hawaiian Studies Program, University of Hawaii.
- Healey, Phyllis M. (1960). *An Agta Grammar*. Manila: Bureau of Printing.
- Hertz, H. F. (1917). *Practical Handbook of the Kachin or Chingpaw Language*. Rangoon: Government Printing and Stationery.
- Hudson, Richard (1984). *Word Grammar*. Oxford: Blackwell.
- Ivens, Walter G. (1918). *Dictionary and Grammar of the Language of Sa'a and Ulawa, Solomon Islands*. Washington, D.C.: Carnegie Institution.
- Jensen, John Thayer (1977). *Yapese Reference Grammar*. PALI Language Texts (Micronesia). Honolulu: University Press of Hawaii.
- Key, Harold H. (1967). *Morphology of Cayuvava*. The Hague: Mouton.
- Koilia, J. A. (1975). A Balawaiian grammar sketch and vocabulary. In *Studies in Languages of Central and Southeast Papua*, T. E. Dutton (ed.). Pacific Linguistics Series C, No. 29. Canberra: Australian National University.
- Li, Charles N. and Thompson, Sandra A. (1981). *Mandarin Chinese: A Functional Reference Grammar*. Berkeley: University of California Press.
- Mainwaring, Colonel G. B. (1876). *A Grammar of the Rong (Lepcha) Language*. Calcutta: Baptist Mission Press.
- Mintz, Malcolm W. (1971). *Bikol Grammar Notes*. Honolulu: University of Hawaii Press.
- Miller, Jeanne, and Miller, Helen (1976). *Mamanwa Grammar*. Language Data, Asian-Pacific Series No. 8. Huntington Beach, Calif.: Summer Institute of Linguistics.
- Miller, Vera Grace (1976). *An Overview of Stieng Grammar*. Work Papers vol. 20, supplement 3. Grand Forks, N. Dak.: Summer Institute of Linguistics.
- Morphy, Frances (1983). Djapu, a Yolngu dialect. In *Handbook of Australian Languages*, vol. 3, R. M. W. Dixon and Barry J. Blake (eds.). Amsterdam: Benjamins.
- Nichols, Johanna (1986). Head marking and dependent marking grammar. *Language* 62, 56-119.
- Porter, Doris (1977). *A Tboli Grammar*. Manila: Linguistic Society of the Philippines.
- Prost, Gilbert R. (1967). Chacobo. In *Bolivian Indian Grammars: One*, Esther Matteson (ed.). Norman, Okla.: Summer Institute of Linguistics.
- Rabel, Lili (1961). *Khasi, a Language of Assam*. Baton Rouge: Louisiana State University Press.
- Reichle, Verena (1981). *Bawm Language and Lore*. Bern: Peter Lang.
- Rowlands, E. C. (1969). *Teach Yourself Yoruba*. London: English Universities Press.
- Samarin, William J. (1966). *The Gbeya Language: Grammar, Texts, and Vocabularies*. University of California Publications in Linguistics Volume 44. Berkeley: University of California Press.
- Saul, Janice E., and Wilson, Nancy Freiberger (1980). *Nung Grammar*. Arlington: Summer Institute of Linguistics and University of Texas.
- Schachter, Paul (1985). Parts-of-speech systems. In *Language Typology and Syntactic Description*, vol. 1, Timothy Shopen (ed.). Cambridge: Cambridge University Press.
- , and Otnes, Fe T. (1972). *Tagalog Reference Grammar*. Berkeley: University of California Press.
- Seiter, William J. (1980). *Studies in Niuean Syntax*. New York: Garland.
- Shoemaker, Jack S., and Shoemaker, Nola K. (1967). Esseeja. In *Bolivian Indian Grammars: One*, Esther Matteson (ed.). Norman, Okla.: Summer Institute of Linguistics.

- Strehlow, T. G. H. (1944). *Aranda Phonetics and Grammar*. Oceania Linguistic Monographs 7. Sydney: Australian National Research Council. (Reprinted from *Oceania* 12: 255–302; 13: 71–103, 177–200, 310–361; 14: 68–90, 159–181, 250–256.)
- Topping, Donald M. (1973). *Chamorro Reference Grammar*. Honolulu: University Press at Hawaii.
- Tryon, Darrell T. (1968a). *Dehu Grammar*. Pacific Linguistics Series B, No. 7. Canberra: Australian National University.
- (1968b). *Iai Grammar*. Pacific Linguistics, Series B, No. 8. Canberra: Australian National University.
- (1970). *Conversational Tahitian*. Berkeley: University of California Press.
- Van der Tuuk, H. N. (1971 [1864]). *A Grammar of Toba Batak*. The Hague: Martinus Nijhoff.
- Van Haitsma, Julia Dieterman, and Van Haitsma, Willard (1976). *A Hierarchical Sketch of Mixe*. Norman, Okla.: Summer Institute of Linguistics.
- Vennemann, Theo, and Harlow, Ray (1977). Categorical grammar and consistent basic VX serialization. *Theoretical Linguistics* 4, 227–254.
- Wells, Margaret A. (1979). *Stroi Grammar*. Pacific Linguistics, Series B, No. 51. Canberra: Australian National University.

