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CONTENTS

<i>List of figures</i>	<i>page</i> xii
<i>List of tables</i>	xiv
<i>Preface</i>	xvii
<i>List of abbreviations</i>	xix
1 Introduction	1
1.1 The special interest of number	1
1.2 Comparing like with like	3
1.3 Structure of the book	6
1.4 Presentation	7
2 Meaning distinctions	9
2.1 General number	9
2.2 Number values	19
2.3 Number systems (the Number Hierarchy and associated problems)	38
2.4 Languages without number	50
2.5 Approaches in formal semantics	51
2.6 Conclusion	52
3 Items involved in the nominal number system	54
3.1 The Animacy Hierarchy	55
3.2 The hierarchy positions	56
3.3 Marking and agreement	66
3.4 Optionality	70
3.5 Morphological effects	75
3.6 Count and mass	78
3.7 Semantic effects	83
3.8 Conclusion	87
	ix

Contents

4 Integrating number values and the Animacy Hierarchy	89
4.1 Extending the Animacy Hierarchy to other number values	90
4.2 Minor numbers	95
4.3 Associatives	101
4.4 Distributives and collectives	111
4.5 Top and second systems	120
4.6 Conclusion	132
5 The expression of number	133
5.1 Number words	133
5.2 Syntax	136
5.3 Morphology	138
5.4 Lexical means	155
5.5 Inverse number (and polarity)	159
5.6 Minimal-augmented systems	166
5.7 ‘Constructed’ numbers	169
5.8 Reduced expression of number	171
5.9 Conclusion	177
6 The syntax of number	178
6.1 Controller versus target number	178
6.2 The Agreement Hierarchy and ‘corporate’ nouns in English	188
6.3 Associatives (syntactic)	191
6.4 Honorifics (in Slavonic)	193
6.5 Conjoined noun phrases	195
6.6 Arabic (agreement with plural noun phrases)	207
6.7 Agreement with quantified expressions (mainly in Slavonic)	211
6.8 Constraints on agreement systems	216
6.9 Conclusion	218
7 Other uses of number	219
7.1 Honorifics and related uses	220
7.2 Unexpected feature values in coordination	228
7.3 Special uses	234
7.4 Conclusion	242
8 Verbal number	243
8.1 The geographical extent of verbal number	245
8.2 The meaning of verbal number	245
8.3 Locus	251

Contents

8.4	Diagnostics for verbal number	252
8.5	Items involved in the verbal number system	257
8.6	Expression of verbal number	258
8.7	Other uses	260
8.8	Motivation for the asymmetries	261
8.9	Conclusion	264
9	Conclusion and new challenges	265
9.1	Diachrony	265
9.2	Interactions	271
9.3	Use of number	280
9.4	The acquisition of number	294
9.5	The psycholinguistics of number	295
9.6	The final note	298
	<i>References</i>	299
	<i>Author index</i>	343
	<i>Language index</i>	351
	<i>Subject index</i>	356

FIGURES

2.1 System with separate general number	<i>page</i> 11
2.2 System with general/singular versus plural	13
2.3 System with general/plural versus singular	16
2.4 System with singular versus plural	19
2.5 Illustration of possible number systems	40
2.6 Possible number systems including an indeterminate value	41
2.7 Number systems with two indeterminate values	42
2.8 The facultative trial of Ngan'gityemerri	44
2.9 The facultative dual of Slovene	45
2.10 The facultative numbers of Larike	45
2.11 The facultative numbers of Longgu	47
2.12 The facultative numbers of Marshallese	47
2.13 System with separate general number (Bayso)	48
2.14 System with shared general number (Kaytetye)	49
2.15 General number (first attempt)	49
2.16 System with general/singular versus plural	50
3.1 The Animacy Hierarchy	56
3.2 The effect of the Animacy Hierarchy on number systems	57
3.3 Different uses of the plural in English	86
4.1 The Animacy Hierarchy	90
4.2 Range of plural and dual in Mansi	90
4.3 Range of plural and dual in Arapesh	91
4.4 Ranges of plural and dual in Maori	91
4.5 Impossible pattern of ranges of number values	92
4.6 Ranges of number values in Yimas	93
4.7 Ranges of number values in Manam	93
4.8 Range of plural and dual in Slovene	94
4.9 Range of minor numbers	98
4.10 Impossible range for a minor number	99
4.11 Minor number systems	100

List of figures

4.12 Associative plurals in Hungarian: first analysis	103
4.13 Associative plurals in Hungarian: second analysis	104
4.14 Number value systems of Yimas	120
4.15 Top and second systems in Pame	122
4.16 Top and second systems in Tuyuca	123
4.17 Top and second systems in dialects of north-west Spain	126
4.18 Top and second systems in Qafar	127
4.19 Top and second systems in Kaytetye	127
4.20 Top and second systems in Bayso	128
5.1 Potential distinctions for number marking	139
5.2 Possible stems and inflections	140
5.3 Singular stem matches the base	141
5.4 Plural stem matches the base	141
5.5 Both stems match the base	142
5.6 Inflections not sensitive to number	142
6.1 Framework of terms	179
6.2 The Agreement Hierarchy	190
6.3 The Predicate Hierarchy	195
6.4 Agreement with the nearest conjunct	196
6.5 Agreement with the first, most distant conjunct (rare)	197
6.6 Agreement with all conjuncts (resolution)	197
9.1 Irregularity type and plural anomaly	292

TABLES

2.1 The dual in Upper Sorbian	<i>page</i> 20
2.2 Independent pronouns in Lihir	25
2.3 Lihir number markers	26
2.4 Emphatic pronouns in Sursurunga	27
2.5 Plural forms in Fula	31
2.6 Number forms in Hamar	33
2.7 Mokilese personal pronouns	34
2.8 Number contrasts in Mele-Fila	35
2.9 Personal pronouns in Pirahã	50
3.1 Complete list of nouns with plural form in Maori	61
3.2 Personal pronouns in Igbo	63
3.3 Personal pronouns in Asmat	64
3.4 Personal pronouns in Kuman	66
3.5 The demonstrative ‘this’ in Miya	72
3.6 Number marking and agreement in Miya	73
3.7 The use of plural markers in Japanese	74
3.8 Pronouns of Mandarin Chinese	76
3.9 Pronominal prefixes of Barbareño Chumash	77
3.10 Plural forms in Eastern Huasteca Nahuatl	78
3.11 Semantic categories of noun phrase	80
4.1 Examples of the paucal in Avar	97
4.2 Personal pronouns in Hungarian	103
4.3 Personal pronouns in Central Pomo	106
4.4 Associative and number morphology in Central Alaskan Yup’ik	109
4.5 Number distinctions of inanimate nouns in Pame	121
4.6 Number distinctions of animate nouns in Pame	122
5.1 Number marking in Akhvakh	143
5.2 Major noun inflectional classes of Russian	144
5.3 Membership of the inflectional classes of Russian	145
5.4 Number and case in Uzbek	145

List of tables

5.5	Basic types of nominal stress in Russian	147
5.6	Examples of stem alternations in Macedonian	147
5.7	Lak <i>mulh</i> 'sickle'	148
5.8	Partial reduplication in Ilocano	149
5.9	Stem internal modification in Germanic languages	149
5.10	Examples of broken plurals in Arabic	150
5.11	Formation of diminutive plurals in Breton	153
5.12	Double plurals in Dutch	154
5.13	Noun number markers in Kiowa	159
5.14	Classes of noun and their semantics in Teop	164
5.15	Articles taken by different noun types in Teop	165
5.16	The definite article in Somali (basic forms)	166
5.17	Rembarrnga dative pronoun forms: traditional categories	167
5.18	Rembarrnga dative pronoun forms: minimal-augmented analysis	167
5.19	Traditional analysis of Ilocano pronominal forms	168
5.20	Minimal-augmented analysis of Ilocano pronominal forms	168
5.21	Different indicators of number-differentiability	172
5.22	Main noun types in Central Alaskan Yup'ik	174
6.1	Place where nominal number is primarily expressed	180
6.2	Number forms of Bayso nouns	181
6.3	Forms of the predicate verb in Bayso	182
6.4	Third person pronouns in Bayso	183
6.5	Consistent agreement patterns in Bayso	183
6.6	Third person pronouns in Qafar	184
6.7	Perfect tense forms in Qafar	184
6.8	Personal pronouns in Godié	186
6.9	Types of controllers which induce agreement mismatches	188
6.10	Judgements on agreement with 'corporate' nouns in three varieties of English	189
6.11	Agreement with honorific <i>vy</i> 'you' in the Slavonic languages	194
6.12	Agreement with conjoined noun phrases in Russian (target factors)	199
6.13	Agreement with conjoined noun phrases (controller factors)	201
6.14	Agreement with conjoined and comitative phrases in Russian	207
6.15	Consistent agreement patterns in Cairene Arabic	208
6.16	Agreement with plural noun phrases in Cairene Arabic	209
6.17	Effect of distance of target from controller in Cairene Arabic	210
6.18	Predicate agreement with quantified expressions in Russian	214
6.19	Predicate agreement with numeral phrases in Slavonic	215
7.1	Forms of address in Boumaa Fijian	225

List of tables

7.2	Number and politeness markers in Muna	228
8.1	Verbal number in Slave	249
8.2	Examples of verbal number in three Papuan languages	250
8.3	Place where number is primarily expressed	251
8.4	Examples of verbal number in Tonkawa	259
9.1	Mokilese personal pronouns	268
9.2	Percentage distribution of count and plural forms in Serbo-Croat	271
9.3	Forms of Russian <i>byl</i> ‘was’	272
9.4	Forms of Slovene <i>bil</i> ‘was’	273
9.5	Taiap demonstratives	273
9.6	Paradigm of Slovene <i>kôl</i> ‘corner’	275
9.7	Slovene <i>člôvek</i> ‘man, person’	276
9.8	Forms of Cree <i>sîsîp</i> ‘duck’	277
9.9	Forms of Cree <i>mînis</i> ‘berry’	277
9.10	Free pronouns in Hua	278
9.11	Noun forms in Aari (<i>tiilê</i> ‘water pot’)	278
9.12	Frequency of different number values (of nouns) in texts	281
9.13	Frequency of different number values in Slovene prose texts	282
9.14	Alternations between singular and plural in Frisian	283
9.15	Regularization of Frisian nouns with stem alternations (normal case)	284
9.16	Regularization of Frisian nouns with stem alternations (special case)	284
9.17	Use of number values with nouns locally unmarked in the plural	285
9.18	Absolute Plural Anomaly in eight groups of nouns	290
9.19	Relative Plural Anomaly in eight groups of nouns	291

1

Introduction

Number is the most underestimated of the grammatical categories. It is deceptively simple, and is much more interesting and varied than most linguists realize. This was recognized by Jespersen: ‘Number might appear to be one of the simplest natural categories, as simple as “two and two are four.” Yet on closer inspection it presents a great many difficulties, both logical and linguistic’ (Jespersen 1924: 188). Lyons too pointed out its interest: ‘The analysis of the category of number in particular languages may be a very complex matter’ (Lyons 1968: 283). This book will illustrate the interest of number, and some first pointers are given in §1.1. We shall also see the challenges which Jespersen and Lyons allude to, one of the trickiest being the need to ensure that as we compare across languages we are really comparing like with like (§1.2). Hence the book is structured so as to work upwards from properties that are safe building blocks for comparison (§1.3). Finally in this introduction a few notes on presentation are needed (§1.4).

1.1 The special interest of number

Despite the significance of number, there are still surveys of linguistics where it receives a footnote’s worth of attention. This is largely because there are some reasonable but incorrect assumptions about number, which are generally based on the consideration of a rather limited range of languages. In seeing where these assumptions are false we shall get an initial idea of how interesting the category really is.

First assumption: number is just an opposition of singular versus plural

There are indeed languages with this basic opposition. But there are also many languages with richer systems, with a dual for two real world entities, some with a trial for three, others with a paucal for a small number. There are more exotic possibilities too, with the richest systems having five number values, as in Sursurunga. Moreover, some of the trickiest problems with number become much clearer when we look at the evidence from larger systems, that is those with more than the basic singular–plural distinction.

Introduction

Second assumption: all relevant items (nouns, for instance) will mark number

We might expect that, say, all nouns would show number. That clearly is not the case, for instance English *honesty* does not mark plural. It seems natural to say that it is an abstract noun and that for certain abstract nouns number is not relevant. But this is a parochial fact about English; there are languages where the proportion of items for which number is relevant in this sense is quite small, and others where number marking is practically always available. The possible ranges of number marking are constrained in interesting ways.

Third assumption: items which do mark number will behave the same

Suppose that we carefully specify how many number values a particular language has and which types of noun mark number. Having avoided our first two false assumptions, we might assume that items would either fail to mark number or would show all the number values available. Once again, things are more interesting than that. In Maltese, for instance, just a few nouns have singular, dual, and plural, while the majority of nouns and the pronouns have only singular and plural. Or in Bayso, pronouns have two number forms while typical nouns have four.

Fourth assumption: number must be expressed

If number forms are available, then surely they must be used? This is an Anglo-centric assumption and is quite false. We shall see instances where the marking of number is optional, and there are languages like Bayso where there are special forms which allow the use of a noun without any commitment to the number of entities involved. Linked to this assumption is the fact that number is usually thought of as prototypically inflectional. The inflection–derivation distinction is becoming a hot topic again in morphology and number is in fact highly problematic in this respect. This book will provide a good deal of relevant material; the presentation will be as neutral as possible in order to include the relevant data for a continuing debate in which the criteria are likely to change.

Fifth assumption: number is a nominal category

So far our examples have involved nouns and pronouns. But there are languages where number is a verbal category, marking the number of events rather than the number of individuals. We return to this distinction in the next section.

The point which is emerging is that English and other familiar Indo-European languages have quite *unusual* number systems; they occupy one corner of the typological space. It is clear that to understand the category of number we need to look at

1.2 Comparing like with like

a broad range of languages. Hale made a related point in a discussion of the problem of language endangerment:

while the category of number is accessible, in an obvious sense, its surface realization across languages exhibits great diversity, and a great many individual languages fail to present the observable data which will permit us to get at the fundamental character of the oppositions involved and, thereby, to come closer to an understanding of the universal organization and inventories of the category of number. (Hale 1997: 75)

We shall see several instances of interesting systems which are essential for appreciating the full range of possibilities being found in languages which have few speakers and are clearly endangered. And the prospects for language loss are particularly serious for number. There are perhaps 6,000 languages spoken at present, of which around 250 are ‘safe’: they are likely to survive another hundred years at least. But these safe languages are not evenly distributed: over half of them belong to Indo-European or Niger-Kordofanian (Krauss 1992, 1993), while some families with many languages of special interest for number are hardly represented at all. It is therefore important to identify and investigate the most interesting systems while there is still time. Our ‘linguistic tour’ in the book will include over 250 languages. Several of these languages do not occur in the various typological samples and yet are vital for a full typology (Bayso is a good example). Hence this was a case where it was appropriate to examine as many languages as possible, rather than taking a defined sample. Many of the languages which were investigated will not be mentioned since they turned out to be similar in the relevant respects to others which are described here.

1.2 Comparing like with like

Since we shall look at a wide range of languages we must be careful to ensure that we are comparing like with like. For instance, how do we know that a language has number? Languages like English have the category of number, since we find correspondences like the following:

magazine	magazine-s
head	head-s
woman	women

There is a difference in meaning between *magazine* and *magazines* (obviously concerning the number of them), which corresponds to a difference in form. That same difference in meaning is found in *head/heads* and *woman/women*. The first member of each pair is said to be singular, and the second is plural. So when we say

Introduction

that English has singular and plural we are referring to correspondences of meaning and form.

In many theoretical frameworks number, like comparable categories such as gender, case and person, is treated as a 'feature'. This feature is said to have certain 'values' (for number, these include singular and plural, and we have already come across others too).¹ These values of the number feature have meanings and forms associated with them. The main part of the meaning of the singular is that it refers to one real world entity, while the plural refers to more than one distinct real world entity. The formal expression of the plural in English is usually the addition of an ending, as in *magazines*, *heads*, while the singular is usually signalled (on nouns) by the absence of such a marker. But there are other ways of marking the plural too, as found in *women* and *geese*. It is the association of (a set of) meanings with (a set of) forms which allows us to talk of the singular and plural values of the feature number.

The plural may be realized in various different ways in a given language. Rather than listing all the forms on each occasion, linguists talk of 'plural forms'. Conversely, these plural forms may be used to express various related meanings, and here we may talk of 'plural meanings'. However, as a shorthand, people often talk of 'the plural' or 'the singular' when in fact just the meaning or just the form is intended. Normally the intention is clear but, particularly when comparing languages, it is important to be explicit about which we intend, for the following reason. We do not expect the form of the plural to be the same in English as, say, in Russian: even if the morphological means used are similar (mainly inflections in both languages); we anticipate that there will be phonological differences between them. Of course, we are correct (the items on the right are Russian translations of the English):

magazine	magazine-s	žurnal	žurnal-y
head	head-s	golov-a	golov-y
woman	women	ženščin-a	ženščin-y

The danger is that using the same term 'plural' for both forms and meanings may lead us to assume without question that though the forms differ the same meanings are expressed. In fact there are small but not insignificant differences between the English and Russian plural.

At this stage let us take an example where the differences are more obvious. English and Russian have singular and plural, while Sanskrit had singular, dual

¹ An alternative terminology has number as a 'category' and singular as a 'property' or 'feature' (Matthews 1991: 39–40). We retain 'category of number' as a wider term, to include all manifestations of number, including number words (for which see §5.1), as opposed to the category of gender, tense and so on.

1.2 Comparing like with like

and plural. Sanskrit used the dual for referring to just two real world entities, and the plural for more than two. Clearly the plural does not have the same meanings in English or Russian as in Sanskrit: it covers cases where two items are referred to in the former languages but not in Sanskrit (a general point made by Saussure 1916/1971: 161).

How then can we compare, say, the plural in different languages? The first answer must be ‘with care’, to ensure that we are indeed dealing with comparable things. Provided first that we can establish that in each language under consideration there is a regular correspondence of meanings and forms which allows us to demonstrate the existence of a number system, we can then compare the values in the two languages. Typically the value which includes in its meaning reference to the largest sets of referents will be called ‘plural’, whatever other meanings or restrictions it may have. It is therefore reasonable to compare the degree of overlap between the use of the plural in the different languages. (But we must be careful; for instance, in descriptions of Cushitic languages ‘plural’ is used to indicate a set of forms whose use does not always correspond to plural in most other languages, as we shall see in §6.1.1.) We shall find potentially confusing terminology for other number values too. The term ‘collective’ is used quite differently in different traditions. And there are subtler problems, for example where ‘trial’ is sometimes used of forms historically related to the numeral three but currently used for a small number (‘few’). Thus although ‘trial’ is a possible term for the form in such languages we shall choose our terms favouring meaning and so would call this a ‘paucal’.² The important thing in such cases is to be explicit about what is intended. As a general rule we shall give priority to meaning in our choice of terms.

The last question we need to tackle at this early stage in our investigation is: What type of category is number? The obvious answer, certainly for speakers of Indo-European languages, is that it is a nominal category, affecting primarily nouns and pronouns. In our examples above, the difference between *head* and *heads*, *golova* and *golovy* is the number of heads involved. Of course, number may be shown by verbs too in English (and Russian, and many other languages):

- (1) my dog watches television
- (2) my dogs watch television

Though number is marked on the verb here as well as on the noun, the essential difference between (1) and (2) is, of course, the number of dogs involved. This point can be seen particularly clearly in these examples:

² Though we favour terms based on semantics, this does not entail any claim that particular number values are always used according to meaning. Thus we label the form *cat* ‘singular’ because it is regularly used in expressions referring to a single cat; but there are also expressions, like *more than one cat*, where the singular is out of line with the semantics.

Introduction

- (3) the sheep drinks from the stream
- (4) the sheep drink from the stream

Though the form of the noun does not change, and the marker of number is on the verb, it still indicates the number of sheep involved. (Example (4) cannot be used in English for the situation in which *one* sheep drinks several times.) In other words, we have nominal number which happens to be expressed on the verb (usually, in English, in addition to being expressed on the noun). Number in English is largely regular: words like *dog* ~ *dogs* greatly outnumber those like *sheep* ~ *sheep* and *criterion* ~ *criteria*. This suggests that number is an inflectional category in English: *dog* (singular) and *dogs* (plural) are forms of the same lexical item DOG.

There are many languages which, broadly speaking, are comparable to English in this respect. But there are also many languages in which number is fundamentally different: in particular it may be not a nominal category but a verbal one. Moreover it is often highly irregular and may not be an inflectional category. Let us consider briefly what verbal number is. The following examples are from Rapanui (the language of Easter Island, one of the Oceanic languages within Austronesian: data from Veronica Du Feu 1996: 191–2 and personal communication):

- (5) ruku
‘dive’
- (6) ruku ruku
‘go diving’

The form in (6) implies more than one dive, but not necessarily more than one diver. Verbal plurality is indicated (by reduplication here) since the event is in a sense plural. There are other possibilities for verbal number, just as nominal number can be more complex and varied than the English data suggest, as we shall see.

1.3 Structure of the book

We begin with nominal number, since it is the part of number where we find the greatest variety. In chapter 2 we look for as many meaning distinctions as we can identify in the world’s languages. We keep the nominal ‘still’ and see how many different number values it may have. Then in chapter 3 we hold the number value still, and see which nominals may be involved. The possible patterns of involvement in the number system are constrained by the Animacy Hierarchy, according to which, informally, the ‘more animate’ a nominal is the more likely it is to show number. We then allow both dimensions to vary together, that is to say, we attempt a typology of what number values are possible for what nominals (chapter 4). This integration of the two dimensions of the typology requires us to address the issues

of minor numbers, associatives and distributives, among others. In chapter 5 we go on to the ways in which number is expressed, and in chapter 6 we discuss syntactic issues, mainly agreement but also including problems caused by numerals. Then we look at other ways in which the means for expressing number can be used, and see that there is a surprising range of uses, from honorific to evasive use (chapter 7). In chapter 8 we survey verbal number, covering meaning distinctions, the items involved in the verbal number system and the ways in which verbal number is expressed. In the concluding chapter we review what has been established about the category of number, draw together strands of the material particularly on the development of number systems (their rise and decline) and on the interaction of number with other categories; and then we look forward to new ideas for research into number.

1.4 Presentation

The book is designed for readers of several different types. For the student of linguistics, it is a guide to an area of obvious interest which has been neglected. And more importantly, it attempts to give a picture of the tremendous richness and diversity of the world's languages, by tackling a category where the familiar languages of Western Europe are overshadowed by the complexities of systems found elsewhere in the world. It is also intended to assist those researching particular languages or groups of languages, whether for a major research project or an undergraduate essay. Seeing familiar material analysed in a typological context can give a new perspective. This is particularly important for those areas where the terminology has become misleading, suggesting differences and similarities which do not hold. It is hoped especially that the book will prove valuable to field-workers by giving them both helpful leads for analysis and the awareness of the types of data which will enable us to understand the category of number more fully. The task in this area is urgent since, as mentioned above, many of the crucial languages are endangered. The picture presented in the book has been built up out of many small pieces, and this should be made evident; hence there are many references in the text, though where possible the detail is given in notes. There are extensive references for those who wish to go further. Since the work is organized thematically, special care has been taken so that those seeking data on specific languages can find the relevant references through the index.

The relevance of the book to typologists is evident: it is another example of the approach to typology which examines categories rather than constructions. Furthermore each chapter can be taken as illustrating a particular typological point, and so the book may be used as a hands-on introduction to typology. For morphologists, it should provide grist to the mill for those concerned with the relations of inflectional and derivational morphology (as noted in §1.1). There is also a

Introduction

substantial amount of research in formal semantics on the nature of plurals; key references will be found in §2.5. That work is starting to connect with the wide range of number use in natural language: it is hoped that this book will be of use to semanticists for that purpose.

The orthography used in examples normally follows that of the source, to enable the reader to refer back easily, while for examples originally in a non-Roman script a standard transliteration is used. Examples are followed by glosses. These are intended to clarify the point at issue rather than being full glosses. When items are segmented in an example, this segmentation is mirrored in the gloss: *smile-s* smile-3.SG, in which the *s* is glossed as ‘3.SG’. Since the *s* cannot itself be segmented into constituent morphs representing third person and singular number separately, the glosses for these, abbreviations in this case, are joined by a stop. Abbreviations are listed on page xix.