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HYPOTHESES ON THE STATUS OF NUMBER [1]

Abstract
Number is often cited as an obvious example of an inflectional category. Yet there are considerable problems. Nine hypotheses about number are considered in turn, and all but one are shown to be false. For instance, not all languages have number; in those that do it is not necessarily inflectional. When we consider the distinction between inherent and contextual inflection we see that the number values for these two may not match (evidence from Miya). Thus rather than being a textbook example of inflection, number proves to be a specially interesting category.

Introduction
A category often held to be prototypically inflectional, namely number, proves less uniform in its status cross-linguistically than was once thought (Booij 1993, 1996; van Marle 1996).[2] We shall consider nine relevant hypotheses in turn, disproving most of them, and thereby showing that number is more complex than is generally recognised.

Number as an inflectional category
In discussions of inflectional morphology, the category chosen for illustration tends to be number. It is used by Bloomfield (1933: 222-224), Stump (1990: 98) and Matthews (1991: 53), to name just three. And it is, after all, one of the phi-features. But what does it mean when we talk of a particular category, in this case number, as inflectional? We approach this question by investigating a list of reasonable hypotheses, the sort of hypotheses that writers may have had in mind when they chose number as the category for illustrating inflectional morphology. That is to say, we examine various possible interpretations of the claim that number is inflectional. Rather than adding to the discussion of the meaning of 'inflectional',[3] which is not our primary concern in this brief paper, we shall choose the cases discussed so that they are as far as possible

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[2] Others who have discussed the status of number include Kuryłowicz (1964: 16-17), who makes a distinction within inflectional forms of the same word between those which vary only in syntactic value (as with case) and those which differ semantically (as with number), and Beard (1982), who adopts the opposite position to the common one, in arguing against an inflectional interpretation of number. Interestingly, in a brief discussion Dressler treats it as not prototypically inflectional (1989: 6). A recent psycholinguistic perspective is provided by Baayen, Lieber & Schreuder (1997).

[3] See Scalise (1988), Plank (1994) and references there.

'consensus cases', where different definitions of inflectional (in the broad sense to cover both inherent and contextual inflection) converge on the same result.

Hypothesis 1: All languages have the category of number and it is inflectional

At least the first part of this claim is widely accepted. For instance:

'All languages have pronominal categories involving at least three persons and two numbers.'   Greenberg (1963: Universal 42).

This reasonable claim appears to be incorrect. Let us consider Pirahã, the only remaining member of the Mura family, spoken in 1997 by some 220 people along the Maici River (Amazonas, Brazil). It has been described by Everett (1986) on the basis of fourteen months of intensive contact with the Pirahã, updated (1997) after five years of fieldwork. He states (1986: 217): 'there are no plural forms in Pirahã'. This holds even for pronouns, whose free forms are as follows (1986: 280):

first person	ti
second person	gíxai
third person	hiapióxio

Table 1: Personal pronouns in Pirahã

'There are no special plural forms for these pronouns.' This means that *hiapióxio* (third person) can be plural or singular, as this example shows (1986: 282):

(1)   hiapióxio soxóá   xo-ó-xio
      3RD   already   jungle-LOC-DIR
      (i)   'He already went to the jungle' or
      (ii) 'They already went to the jungle'

There are ways of expressing what in other languages would be plurality, by conjoining, for instance (1986: 281):

(2)   ti   gíxai   pí-o   ahá-p-i-í
      1ST   2ND   also-OBL   go-IMPRF-PROX-COMPLETE.CERT
      'You and I will go (i.e. we will go)'
      [abbreviations: OBLique, PROXimate, CERTainty]

There are other means for expressing the notion of plurality:[4] the associative/comitative postposition *xigí* and various quantifiers. But this does not mean that the language has a number category; after all, English can express duality through the use of *two* and *both*, but this does not mean that English has a dual. The grammar of English does not need to

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[4] More generally, in our discussions of whether a particular language has number, and for which word classes, we should bear in mind that number may be expressed indirectly, for example through distributivity, in order not to be misled by phenomena of this type.

refer to a value 'dual'. Similarly in Pirahã, from Everett's description, the grammar has no need to refer to a value 'plural'. We conclude that Pirahã has no number category.

Kawi (Old Javanese) is reported to have been similar to Pirahã in this respect, in not having plural nouns or pronouns, but marking number by conjoining pronouns or by quantifiers such as 'many' and 'all' (Becker & Oka 1974: 232).

From now on we shall consider only languages with a number category, and assume this in our hypotheses.

Hypothesis 2: Where number is found it will be inflectional

This weakening of the original claim allows for there to be languages without number, but claims that where it is found, number will always be inflectional. It too is false, there is no universal list specifying that categories must be of a particular type. In fact genuine verbal number (rather than nominal number found on verbs by agreement) is typically derivational (Durie 1986; Mithun 1988a, 1988b). Verbal number has been claimed to exist in many languages. It is particularly widespread in North America; it is also found in the South Central Dravidian group of languages of southern India (Steever 1987) and in many languages of Africa (Brooks 1991), the Chadic group being particularly well documented (Newman 1990: 53-87). A major analysis of the subject is that of Durie (1986); Frajzyngier (1985) was a forerunner and Mithun (1988a) gives a diachronic perspective.

The meaning of verbal number is still not well researched; and the difficulty is compounded by the fact that the terminology is not standardized. For example, Eulenberg discussing a reduplicated verb in Hausa says that it represents:

> 'a derivational category widespread among Nilo-Saharan and Afro-Asiatic languages, though rather marginal in Niger-Congo. This category is variously known as the *intensive, habitative, frequentative, repetitive*, or *plural* verb. ... it has the general meaning of a repeated action, an action simultaneously performed by several agents, an action performed on more than one object, or various combinations of these "plural" meanings.'
>
> Eulenberg (1971: 73)

There are two main types of verbal number: **event number** and **participant number**. We will consider an example of event number here, and an example of participant number (from Georgian) below. Event number can be illustrated from Hausa (a Chadic language, Chadic being one of the branches of Afro-Asiatic); the data are from Eulenberg (1971: 73-74):

(3)   naa   aikee   su[5]
       I.COMPL   send   them

(4)   naa   a"aikee   su
       I.COMPL   send.PL them

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[5] *naa* 'I' is in a form marking completive aspect (COMPL); the verb is *aikaa* 'to send' but the *-aa* ending changes to *-ee* because of the presence of a pronominal object.

Note that both have a singular subject and a plural object. Example (3) has a simple verb, but (4) has a verb with partial reduplication, which marks it as 'intensive' or 'plural'. Example (3) can be used with the meaning 'I sent them at the same time to the same place' and (4) would not be appropriate there. Both examples could be used with the following meanings:

(i)   I sent them at the same time to different places
(ii)   I sent them at different times to the same place
(iii)   I sent them at different times to different places

Thus the plural verb *a"aikee* indicates that the sending was not simple; rather it involved more than one time or more than one place - more than one 'sending-event'. Its use is not obligatory, however. The important thing is that the use of the 'plural' verb here indicates the number of sendings; it is an instance of verbal number.

Hypothesis 3: For a given language, number will be either inflectional or not inflectional (but not both)

This claim is false: there is not necessarily one answer for a given language: number may be both inflectional and derivational. We can conveniently show this, together with disproving the following, weaker claim.

Hypothesis 4: For a given lexical class, number will be either inflectional or not inflectional (but not both)

Surprisingly, perhaps, inflectional and derivational number may co-occur on a single item. We shall see this in examples involving the participant type of verbal number, in the South Caucasian (or Kartvelian) language Georgian (Aronson 1982: 243, 406-407, quoted in Durie 1986):

(5)   ivane   še-mo-vid-a   da   da-ǰd-a
        John   PRV-PRV-enter-AOR.3.SG and PRV-sit.SG-AOR.3.SG
        'John entered and sat down'(PRV = preverb, AOR = aorist)

(6)   čem-i   mšobl-eb-i   še-mo-vid-nen   da
        my-AG   parent-PL-NOM   PRV-PRV-enter-AOR.3.PL   and

        da-sxd-nen
        PRV-sit.PL-AOR.3.PL
        'My parents entered and sat down'

        [AG indicates an agreement marker; the ending *-i* is syncretic, covering nominative singular and plural, and genitive singular and plural]

The verbs agree in number in a straightforward way. This is nominal number expressed on the verb by agreement. It is inflectional. Additionally, though, the verb 'sit' (unlike the verb 'enter') is one of those which has different derived forms according to whether one person sits (*daǰd-*), or more than one (*dasxd-*). The choice can be seen as a case of

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verbal number, determined by semantic considerations. Now consider what happens when there is a numeral phrase. Numerals require a singular noun (*megobari* 'friend', the plural would be *megobr-eb-i)* and the resulting phrase controls singular agreement :

(7) čem-i   sam-i   megobar-i   še-mo-vid-a   da
     my-AG   three-AG   friend.SG-NOM PRV-PRV-enter-AOR.3.SG   and

     da-sxd-a
     PRV-sit.PL-AOR.3.SG
     'My three friends entered and sat down'

Singular agreement is found on both verbs. Yet the second, which has two forms according to the number of participants, shows the plural verbal form *dasxd-*, since more than one participant is involved in the action. In other words, the verb is plural in terms of verbal number, but this does not determine the agreement, which is singular. Thus in Georgian we have derivational and inflectional number together. And they can take different values.

Our rejection of hypotheses 2-4 has depended on the notion of verbal number. Some might not accept that the verbal opposition in the Hausa and Georgian examples above is an instance of the category of number. It could be argued that this was a case of aspect. Repeated versus non-repeated action is a classic aspectual distinction. There is a clear link between aspect and nominal number: if a language marks repeated action in some way, this is much more likely to be found when plurality is involved than without it (in the real world, a single person is, for instance, unlikely to send a single package repeatedly). Alternatively we might analyze the Hausa example as showing distributivity. The examples of participant number (as in Georgian) are perhaps harder to discount. However, for those who would restrict number to nominal number (including nominal number expressed on the verb by agreement), it still does not follow that hypotheses 2-4 hold. They will be disproved using different evidence along with hypothesis 5.

Hypothesis 5: At least for the nominals in a given language, taking them together, number will be either inflectional or not inflectional (but not both)

We might expect that if there is inflectional nominal number, it will occur throughout the nominals. This claim too, is false. There can be splits within the nominals. This has been known for some time, but the theoretical consequences have generally not been thought through. There are several examples; we will take a less usual one, namely Marind, which belongs to the family of the same name and has about 7000 speakers in southern Irian Jaya. The data, originally from Drabbe (1955: 19-20), are presented in Foley (1986: 78, 82-83).[6] Marind has four genders (which we designate I-IV in the examples), and nouns are assigned to them as follows: gender I is for male humans, gender II for female humans and animals, gender III is mainly for plants and trees, while the semantic residue makes up gender IV. First we see examples of genders I and II:

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[6] As yet I have unfortunately been unable to gain access to a copy of the original.

(8) e-pe   anem   e-pe   akek   ka
     I-the male.person I-the light.I   be
     'the man is light'

(9) u-pe   anum   u-pe   akuk   ka
     II-the female.person II-the light.II   be
     'the woman is light'

(10) u-pe   ŋgat   u-pe   akuk   ka
     II-the dog   II-the light.II   be
     'the dog is light'

The agreement is prefixed on *-pe* 'the' but infixed in the adjective *ak-k* 'light'. In the plural, the forms are these:

(11) i-pe   anim   i-pe   akik   ka
     PL-the person.PL   PL-the light.PL   be
     'the people are light'

(12) i-pe   ŋgat   i-pe   akik   ka
     PL-the dog   PL-the light.PL   be
     'the dogs are light'

There is just one plural agreement form for genders I and II. *Anum* 'man' has the plural *anim*; while *ŋgat* 'dog/dogs' does not change morphologically. There are, however, nouns denoting animals which mark number, for instance *namakud* 'animal' has the plural *namakid*. Though not marking number itself, *ŋgat* when plural takes plural agreements. For genders III and IV, the forms are these:

(13) e-pe   de   e-pe   akak   ka
     III-the wood   III-the light.III   be
     'the wood is light'

(14) i-pe   behaw i-pe   akik   ka
     IV-the pole   IV-the light.IV   be
     'the pole is light'

Nouns of genders III and IV, those which are 'below' animals, have no distinct plural forms and no plural agreement forms. (Note that the gender IV marker is the same as the plural marker for genders I and II.)

This is one instance of a more general claimed regularity. Smith-Stark (1974) proposed this version of the Animacy Hierarchy:

speaker > addressee > kin > rational > human > animate > inanimate
(1st person   (2nd person
pronouns)   pronouns)

Figure 1: The Smith-Stark (Animacy) Hierarchy

He claimed that when plurality 'splits' a language, some top segment of the hierarchy will be involved in plural marking. For some languages there is a relatively clear split within the nominals, for others it is much less clear, with optional marking available at some positions on the hierarchy. What matters here, however, is that it is quite normal for nominals at different points on the hierarchy to behave differently with regard to number.

It is tempting to claim that number is inflectional for the count nouns of a language. However, this use of 'count' leads to circularity, if it means no more than the nouns which have inflectional number. To avoid circularity we would need to show that items denoted by nouns below the count noun threshold of the particular language, are not counted. This is certainly not the case for the Miya examples discussed below (see especially example (16)).

The Marind data suggest new hypotheses, in that the examples include marking of number both on the noun and through agreement. The first is an instance of 'inherent' inflection, while agreement shows that the number of the noun (through the noun phrase of which it is the head) also has a role in contextual inflection (Booij 1996: 28). There are at least two hypotheses to consider with respect to this distinction, one leading to the other.

Hypothesis 6: For all the nominals in a given language, number will be a category of inherent inflection or it will have a role in contextual inflection

The Marind data are sufficient to disprove this hypothesis. Nominals below the animacy threshold are outside the number system, both in terms of marking number and in terms of agreement. We are not dealing with isolated exceptions but with a substantial proportion of the noun inventory.

This suggests a further hypothesis:

Hypothesis 7: For each use of each nominal the value of the number category for inherent inflection must match the value for its role in contextual inflection

This makes the reasonable claim that those nominals for which number marking is available will match those which can head noun phrases controlling number agreement. Thus there will be a single cut-off point on the Animacy Hierarchy. If it were true, it would mean that for investigating number in nominals the inherent/contextual distinction was not relevant. However, we shall see that even this claim does not hold.

We might think of British English *committee* type nouns here, since they allow plural agreement while standing in the singular. However, these are a special case in that their agreements need not be consistent (*this committee, after long deliberation, have decided to ...*).

There is a more clear-cut counter-example. The relevant data are found in the West Chadic language Miya (Schuh 1989); the split involves obligatory/optional number marking and obligatory/excluded agreement. Number is involved in agreement and hence

is relevant to syntax; furthermore: 'Potentially, any noun may be pluralized morphologically.' (Schuh 1989: 173). Hence by almost any definition the language has inflectional number. Let us look at its distribution. Nouns are of two genders, masculine and feminine; males are masculine, females feminine, and non-sex differentiables can be either. Agreement targets (and many different items agree) have three agreement forms: masculine singular, feminine singular and plural. This may be illustrated by one of the demonstrative pronouns:

	singular	plural
masculine	nákə̂n	níykín
feminine	tákə̂n	

Table 2: The demonstrative 'this' in Miya (Schuh 1989: 172, 176)

In addition there is an animate/inanimate distinction: the animate nouns are those which denote 'all humans, most, if not all, domestic animals and fowl, and some large wild animals.' Large wild animals are the 'grey area'. The remaining nouns are inanimate (1989: 175). This distinction is relevant for number marking in that animate nouns must be marked for plurality when appropriate:

(15) tə̀vàm   tsə́r   cf: *'ám   tsə́r
     woman.PL two   woman.SG two
     'two women'   *'two women'

For inanimates on the other hand marking is optional:

(16) zə̀kìyáyàw vàatlə̀   cf: zə̀kìy   vàatlə̀
     stone.PL   five   stone.SG five
     'five stones'   'five stones'

Animate plural nouns take plural agreements:

(17) níykín   tə̀vàm
     this.PL woman.PL
     'these women'

Inanimate nouns, however, even if they are marked as plural, do not take plural agreement; they take agreement according to their gender in the singular:

(18) nákə́n   viyáyuwáwàw
     this.M.SG   fireplace.PL   (vìyàyúw 'fireplace' is masculine)
     'these fireplaces'

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(19) táksn   tlsrkayáyàw
      this.F.SG   calabash.PL   (*tlsrkay* 'calabash' is feminine)
      'these calabashes'

Thus the status of number is different for animate and inanimate nouns. Marking of number is obligatory for animates but optional for inanimates. Number is syntactically relevant, since it is an agreement category; however, while agreement in number with animates is obligatory, plural agreement with inanimates is impossible. And, most interestingly, agreement with inanimate plurals does occur, but in gender and not in number. This shows that there is an agreement rule for inanimates where we might have expected to find number agreement, but where the latter fails to occur. Thus inanimate nouns have inherent number, marked optionally, but this number does not have a role in contextual inflection. The value of the number category for inherent inflection need not match the value for its role in contextual inflection and hypothesis 7 is shown to be false.
     At least, we might think, the mismatch will always be this way:

Hypothesis 8: For the nominals in a given language, where the role of the number category differs for inherent inflection and contextual inflection, the role of inherent inflection will extend lower down the Animacy Hierarchy than that of contextual inflection.

This proves to be another reasonable but false supposition. Consider Merlan's (1983) account of Ngalakan, a language of the Gunwinjguan group, which had around 25 speakers in the late 1970's, at Bulman and Ngukurr in Arnhem Land, Australia. Here too, marking of number on the verb is sensitive to position on the hierarchy:

> '... in Ngalakan explicit non-singular marking on the noun is limited; nouns not explicitly marked as non-singular can be cross-referenced as non-singular, but this possibility is limited almost entirely to human and sometimes animate nouns. Non-singular reference of inanimate NPs is generally not explicitly marked in the verb, and is largely to be understood from the larger context of discourse.'   (Merlan 1983: 90)

The implication of the interaction of number with the Animacy Hierarchy is that the status of number as an inflectional category is much less straightforward than generally imagined. It really is not a simple inflectional feature (+/- plural) available to play a role in the syntax. It is also worth mentioning here that, to keep things simple, discussion has been restricted to singular and plural. Other values of the number category add whole layers of complexity: it is not that case that, for example, in a singular-dual-plural system what is true for the plural will be true for the dual. They can vary independently.
     However, after several hypotheses which have been proved false, it is time to suggest a new one, which it is hoped will prove correct:

Hypothesis 9: For the nominals in a given language, where the role of the number category differs for inherent inflection and contextual inflection, there may be counter-examples to the requirement of the Animacy Hierarchy in terms of inherent inflection but not in terms of contextual inflection.

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We can illustrate the effect of this constraint from English, where the number split is very low on the hierarchy, being found within the inanimates. Nouns like *sheep* are therefore exceptional in terms of number marking:

(20) This sheep has been cloned.
(21) These sheep have been cloned.

Since sheep are animate, the noun would be expected to mark number (as indeed it once did). The noun is irregular in terms of inherent inflection, but regular in terms of its role in contextual inflection (it takes plural agreement when plural). Imagine a new lexical item *peesh* (a cloned sheep). It could not be the grammatical reversal of *sheep*:

(22) This peesh has been fed. [Hypothetical: singular]
(23) This peeshes has been fed. [Hypothetical: plural: claimed impossible]

At first sight, the hypothetical system which is claimed to be impossible looks rather like that which is found in Miya. The difference is that in Miya there are two splits, different for noun marking and agreement, but both in accord with the Animacy Hierarchy. English *sheep* is not part of a regular split but is a lexical exception. Exceptions of this type are allowed, while the converse, like the hypothetical *peesh*, are not.

Conclusion
Number, which is taken so readily as an illustrative case of inflectional morphology, is a category whose status is hard to determine. We have seen a list of reasonable hypotheses which have been proved false, and just one which appears promising. The status of number is clearly worth pursuing further.[7]

References
Aronson, Howard I. 1982. *Georgian: a Reading Grammar*. Columbus, Ohio: Slavica.
Baayen, R. Harald; Lieber, Rochelle & Schreuder, Robert 1997. The morphological complexity of simplex nouns. *Linguistics* 35.861-877.
Beard, Robert 1982. The plural as a lexical derivation. *Glossa* 16.133-48.
Becker, A. L. & Oka, 1. Gusti Ngurah 1974. Person in Kawi: exploration of an elementary semantic dimension. *Oceanic Linguistics* 13.229-255.
Bloomfield, Leonard 1933. *Language*. New York: Holt, Rinehart & Winston.
Booij, Geert 1993. Against split morphology. In: Geert Booij & Jaap van Marle (eds) *Yearbook of Morphology 1993*, 27-49. Dordrecht: Kluwer.
Booij, Geert 1996. Inherent versus contextual inflection and the split morphology hypothesis. In: Geert Booij & Jaap van Marle (eds) *Yearbook of Morphology 1995*, 1-15. Dordrecht: Kluwer.
Brooks, Bryan 1991. Pluractional verbs in African languages. *Afrikanistische Arbeitspapiere* (Cologne) 28.157-68.
Corbett, Greville G. forthcoming. Prototypical inflection: implications for typology. To appear in: Geert Booij & Jaap van Marle (eds) *Yearbook of Morphology 1998*. Dordrecht: Kluwer.
Corbett, Greville G. in preparation. *Number*. Cambridge: Cambridge University Press.

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[7] This research is continued in Corbett (forthcoming, in preparation).

Drabbe, P. 1955. Spraakkunst von het Marind. *Studia Instituti Anthropos* 11. [Cited from Foley 1986.]

Dressler, Wolfgang U. 1989. Prototypical differences between inflection and derivation. *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikationsforschung* 42.3-10.

Durie, Mark 1986. The grammaticization of number as a verbal category. In: Vassiliki Nikiforidou, Mary VanClay, Mary Niepokuj & Deborah Feder (eds) *Proceedings of the Twelfth Annual Meeting of the Berkeley Linguistics Society: February 15-17, 1986,* 355-70. Berkeley, California: B. L. S., University of California.

Eulenberg, John B. 1971. Conjunction reduction and reduplication in African languages. In: Chin-Wu Kim & Herbert Stahlke (eds) *Papers in African Linguistics* (Current Inquiry into Language and Linguistics 1), 71-80. Edmonton: Linguistic Research.

Everett, Daniel 1986. Pirahã. In: Desmond C. Derbyshire & Geoffrey K. Pullum (eds) *Handbook of Amazonian Languages: I,* 200-325. Berlin: Mouton de Gruyter.

Everett, Daniel 1997. Pirahã. (ESRC Research Seminar Series "Challenges for Inflectional Description" - III, University of Surrey, 13.5.1997). Unpublished presentation.

Foley, William A. 1986. *The Papuan Languages of New Guinea.* Cambridge: Cambridge University Press.

Frajzyngier, Zygmunt 1985. Ergativity, number, and agreement. In: Mary Niepokuj, Mary Van Clay, Vassiliki Nikiforidou & Deborah Feder (eds), *Proceedings of the Eleventh Annual Meeting of the Berkeley Linguistics Society, February 16-18, 1985,* 96–106. Berkeley, California: B. L. S., University of California.

Greenberg, Joseph H. 1963. Some universals of grammar with particular reference to the order of meaningful elements. In: Joseph H. Greenberg (ed.) *Universals of Language,* 73-113. Cambridge, Massachusetts: MIT Press.

Jespersen, Otto 1924. *The Philosophy of Grammar.* London: Allen & Unwin.

Kuryłowicz, Jerzy 1964. *The Inflectional Categories of Indo-European.* Heidelberg: Carl Winter.

Marle, Jaap van 1996. The unity of morphology: on the interwovenness of the derivational and inflectional dimension of the word. In: Geert Booij & Jaap van Marle (eds) *Yearbook of Morphology 1995,* 67-82. Dordrecht: Kluwer.

Matthews, Peter H. 1991. *Morphology.* Cambridge: Cambridge University Press. Second edition [first edition 1974]

Merlan, Francesca 1983. *Ngalakan Grammar, Texts and Vocabulary* (Pacific Linguistics, series B, no. 89). Canberra: Department of Linguistics, Research School of Pacific Studies, Australian National University.

Mithun, Marianne 1988a. Lexical categories and the evolution of number marking. In: Michael Hammond & Michael Noonan (eds) *Theoretical Morphology: Approaches in Modern Linguistics,* 211-34. San Diego: Academic Press.

Mithun, Marianne 1988b. Lexical categories and number in Central Pomo. In: William Shipley (ed.) *In Honor of Mary Haas: From the Haas Festival Conference on Native American Linguistics,* 517-37. Berlin: Mouton de Gruyter.

Newman, Paul 1990. *Nominal and Verbal Plurality in Chadic* (Publications in African Languages and Linguistics 12). Dordrecht: Foris.

Plank, Frans 1994. Inflection and derivation. In R. E. Asher (ed.) *Encyclopedia of Language and Linguistics* volume 3, 1671-1678. Oxford: Pergamon Press.

Scalise, Sergio 1988. Inflection and derivation. *Linguistics* 26.561-581.

Schuh, Russell G. 1989. Number and gender in Miya. In: Zygmunt Frajzyngier (ed.) *Current Progress in Chadic Linguistics: Proceedings of the International Symposium on Chadic Linguistics: Boulder, Colorado, 1-2 May, 1987* (Current Issues in Linguistic Theory 62), 171-181. Amsterdam: Benjamins.

Smith-Stark, T. Cedric 1974. The plurality split. In: Michael W. La Galy, Robert A. Fox & Anthony Bruck (eds) *Papers from the Tenth Regional Meeting, Chicago Linguistic Society, April 19-21, 1974,* 657-71. Chicago: Chicago Linguistic Society.

Steever, Sanford B. 1987. The roots of the plural action verb in the Dravidian languages. *Journal of the American Oriental Society* 107.581-604.

Stump, Gregory T. 1990. Breton inflection and the split morphology hypothesis. In: Randall Hendrick (ed.) *The Syntax of the Modern Celtic Languages* (Syntax and Semantics 20), 97-119. San Diego: Academic Press.