

**R. M. W. Dixon & Alexandra Y. Aikhenvald (eds.), *Word: a cross-linguistic typology*. Cambridge: Cambridge University Press, 2002. Pp. xiii+290.**

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This edited volume contains a selection of revised versions of papers from the International Workshop on 'Word' held at the Research Centre for Linguistic Typology, La Trobe University, in August 2000. An earlier version of the first chapter, by R. M. W. Dixon & Alexandra Y. Aikhenvald, had been circulated to contributors so as to ensure that the studies 'were cast in terms of the same typological parameters' (x). The cover blurb suggests that it 'will be an invaluable resource for scholars of linguistic typology and of morphology and phonology'. It is therefore appropriate to judge this volume in terms of the contribution the typological parameters make to our understanding of 'word', and to assess whether the book will prove a valuable resource for typologists.

Chapters 2–10, while addressing key theoretical considerations, look in detail at the notion 'word' as applied to a diverse set of languages, and this thereby serves to show how adequate, or indeed inadequate, the typological parameters from Dixon & Aikhenvald's chapter 1 are. P. H. Matthew's chapter 11, 'What can we conclude?', draws together a number of threads from the theoretical discussion and challenging data presented.

409

Dixon & Aikhenvald's chapter 1, 'Word: a typological framework', surveys the literature on 'word'. They note from this survey that '[s]ome of the definitions suggested for word are horrifying in their complexity and clearly infringe the principle that a definition should not be more difficult to understand than the word it purports to define' (5). The core distinction in chapter 1 is between phonological word and grammatical word. A phonological word can be defined in terms of one or more of the following: (a) segmental features ; (b) prosodic features ; (c) phonological rules. Grammatical words are defined in terms of the morphological elements which constitute them, and there are three main criteria : (a) the elements constituting a grammatical word always occur together; (b) they occur in a fixed order; (c) they 'have a conventionalised coherence and meaning' (19). Although 'tempered by a number of caveats ', these criteria for grammatical words are universal (19). It is striking, when reading the rest of the volume, how even these criteria may prove to be inadequate on certain occasions. For instance, in his 'The eclectic morphology of Jarawara, and the status of word', chapter 5, Dixon rejects an analysis of the predicate as one grammatical word, even though the elements involved occur in a fixed order. On the other hand, Robert Rankin, John Boyle, Randolph Graczyk & John Koontz, in chapter 7, 'A synchronic and diachronic perspective on "word" in Siouan', argue that the ordering of constituent morphemes, in forms which they certainly consider to be grammatical words, is inconsistent (188). Hence, the fixed order criterion (b) on its own would incorrectly lead one to conclude that a certain combination in Jarawara is one grammatical word, when it is not, whereas it would falsely lead one to assume that certain grammatical words in Siouan are not grammatical words, when they are. Dixon & Aikhenvald give further criteria. A further property, (d) – lack of recursiveness – is discussed, with counterexamples from Turkish (causative derivation) and Dyirbal (where the comitative can appear more than once). Rankin et al. also show that locative affixes are recursive in Siouan. A further criterion is that there should only be one inflectional affix per word (criterion (e)). Inflection here is associated with obligatoriness (22). Dixon & Aikhenvald say that this criterion would have to be modified for languages such as Turkish and Hungarian, with separate number and case marking, but it 'could still be applicable' (23). However, they do not say how it could be made to apply. They also say that the criterion may apply to verbs. A strict reading of criterion (e) would require either cumulative marking of inflectional categories, or else that there is only one inflectional category per word. That is why Turkish and Hungarian are problematic, and one can easily find examples in Indo-European languages where the verbal system has more than one element realising inflectional categories. Criterion (e) is also a problem if the distinction between inflection and derivation is not considered a useful one, as Dixon argues in chapter 5 for many South American languages (131). Given the possibility that the

derivation–inflection division is not considered useful for a large body of languages, combined with the fact that criterion (e) needs to be modified in an as yet unspecified way for a subset of languages and for a particular word class, verbs, it appears that this criterion is of limited utility.

The last criterion of wordhood discussed in chapter 1 is the pause. While this is useful for some of the languages involved, Dixon & Aikhenvald warn that it needs to be treated with caution.

Dixon & Aikhenvald then go on to discuss types of relationships between phonological and grammatical word. The first is where phonological word and grammatical word coincide. The next type of relationship is where a '[p]honological word consists of (usually) one or (sometimes) more than one grammatical words' (27). It is significant here that the examples given by Dixon & Aikhenvald involve clitics, which do not constitute a phonological word in their own right. In fact, in the preceding section on clitics, these are characterised by Dixon & Aikhenvald as elements 'which each make up one grammatical word but do not constitute a separate phonological word' (27). The third type of relationship between grammatical word and phonological word is where a '[g]rammatical word consists of (usually) one or (sometimes) more than one phonological words' (28). Compounds in many languages could be seen in terms of this relationship. There is then a fourth type of 'more complex' relationship between grammatical word and phonological word. Two examples of this are cited, from Fijian and Arrernte. In Fijian, a prefix which derives nouns from verbs forms one phonological word with the preceding common article. The result is that one grammatical word (the derivational prefix and root) consists of one phonological word (the root) plus part (the derivational prefix) of another phonological word (the combined derivational prefix and common article).

Chapter 1 concludes with an interesting discussion of the orthographic word and the social status of words. A useful appendix outlines the properties of phonological words and grammatical words in Fijian.

I now turn to chapter 2, 'Typological parameters for the study of clitics', by Aikhenvald. This chapter can be divided into three main parts: the outline and discussion of the typological parameters for clitics, the discussion of words and clitics in Tariana, and an appendix on Aikhenvald's parameters, in particular compared with those of Zwicky & Pullum (1983) and Sadock (1991). Of these, the most helpful is the section on Tariana, with its exposition of the properties of phonological words, grammatical words and clitics in that language, and this section is certainly a valuable resource for linguists wishing to see how the definitions might be applied. The status of the typological parameters for clitics is unclear. The introductory chapter of the volume bills this section of chapter 2 as 'a comprehensive typology of fifteen parameters in terms of which clitics may vary' (26). There are two questions which need to be asked in order to help us understand this typology: (i) is clitic status ever determined externally to these parameters, or are there

411

parameters which are criterial ? (ii) is any one of the parameters singularly definitional/criterial for clitic status ? The answer to (i) appears to be that clitic status is determined by the parameters, since in the chapter summary, Aikhenvald lists criterial parameters for determining clitic status (71) and she states in the appendix that clitic-specific syntactic rules (parameter (e)) are a defining parameter (74). The answer to (ii) takes a little working out. The statement that clitic-specific syntactic rules are a defining parameter might suggest that the answer to (ii) is 'yes', but it is at first unclear whether such rules must be definitional in combination with other parameters. As the term 'clitic' is used in giving the parameter, this would suggest that this parameter cannot be singularly definitional, as it would involve an irresolvable circularity (i.e. the use of 'clitic' in defining 'clitic'). Therefore the answer to (ii) should be 'no', and Aikhenvald, in criticising Anderson's (1992)  $\downarrow$ clitic parameter in the appendix, says that 'deciding what is a clitic and what is not involves a number of parameters' (73). This demonstrates that the appendix is an essential element for interpreting the typology, and it would have been useful to have this information given earlier, when the typological parameters are first introduced. Aikhenvald claims for the typological parameters that they 'provide us with a scalar definition of clitics' (43). But this is an ambiguous statement: do the parameters as a collective provide the scale, or is each individual parameter scalar ? The answer to this question appears to be that the collective parameters are a scale, although Aikhenvald also refers to a 'multidimensional continuum' (43), and later picks out certain parameters as scalar in the appendix. But these parameters require a further degree of interpretation to obtain a scale, and, crucially, Aikhenvald does not always provide clues as to the parameter values which determine the position of an item within the multidimensional space referred to (i.e. what the extreme values are), other than that on a language-specific basis certain items are determined to be more or less clitic-like, it appears. Yet, Aikhenvald also claims that she is advocating a continuum between affixes and words (pages 42 and 71), while some of her argumentation is based on the idea that there are certain properties which are unique to clitics *1* (and therefore, neither affix-like nor word-like, one would assume).

Anthony C. Woodbury's clearly written chapter 3, 'The word in Cup'ik', shows how the notions grammatical word and phonological word can be applied to a highly polysynthetic language. Cup'ik obeys criterion (a) for grammatical words in that the elements occur together, and criterion (b) in that they occur in a fixed order (89). Woodbury also shows that enclitics in Cup'ik differ from other grammatical words, as they cannot occur alone in an utterance. There are two relevant domains for the phonological word, PW (the phonological word, which contains the grammatical word and

[1] For instance, Aikhenvald refers to 'clitic-specific phonological processes' (71).

enclitics) and PW– (a subdomain of phonological word, which contains the grammatical word minus enclitics).

John Henderson's chapter 4, 'The word in Eastern/Central Arrernte', is important for its discussion of potential examples of clitics which appear to constitute distinct phonological words. Some of the evidence for this comes from a rule of prepalatalisation before /a/ and also from the play language 'Rabbit Talk', where polysyllabic words have their first element transposed to the end and monosyllabic words are prefixed with /ey/. The domain for the prepalatalisation rule and the Rabbit Talk rule is the phonological word (106). For certain clitics the prepalatalisation rule and the Rabbit Talk rule apply, thereby indicating that they are separate phonological domains. Of course, this poses a problem for the view that clitics are not fully fledged phonological words.

Dixon's chapter 5, 'The eclectic morphology of Jarawara, and the status of word', is interesting for a number of reasons: Jarawara has no clitics ; it has mismatches of one grammatical word to two phonological words (compounds and reduplication), and an instance of one phonological word consisting of two grammatical words, which would typically be a situation which arises with clitics. As mentioned earlier, Dixon's analysis of the predicate shows how the fixed ordering criterion could lead to the conclusion that it is one grammatical word, when it is not. Key to this is the rule (146, 147 fn.13) that certain suffixes commence 'a new phonological word if preceded by more than a single mora in a grammatical word to which they belong'. This shows how the definitions of phonological word and grammatical word can be dependent on each other.

In chapter 6, 'Towards a notion of "word" in sign languages', Ulrike Zeshan provides an extremely useful discussion of the extent to which the concepts of 'word' and 'sign' in sign language match up. The problem of the word boundaries is not as great as for spoken languages, as each sign is a self-contained unit. However, sign language is also a problem for the ordering criterion, (b), because complex morphology is 'almost exclusively simultaneous rather than sequential' (156). One of the examples of this given by Zeshan is the modification of the movement pattern of a basic sign in order to convey particular distinctions in aspect and aktionsart. This simultaneous property is comparable with ablaut in spoken languages, for instance (158), and Zeshan believes that the closest spoken language equivalent is Semitic intercalation, where patterns are superimposed on an underlying root.

A number of other interesting potential points of similarity and contrast are discussed. In particular, sign languages, in contrast with spoken languages, can make use of 'simultaneous words', where two one-handed signs are produced together. Zeshan illustrates this with enumeration from Indo-Pakistani Sign Language. The final big issue for linguistic theory which Zeshan addresses is that many signs in sign languages are not arbitrary, a property of the word which is generally accepted as fundamental. Zeshan's

estimate for Indo-Pakistani Sign Language is that 'at least half of the vocabulary ... is iconic in some way' (170).

Rankin et al.'s arguments against templatic morphology in Siouan have already been mentioned. In chapter 7, they also argue that Siouan languages are typically regarded as matching phonological word and grammatical word consistently. They also make the case for a further concept, 'syntactic word', exemplifying this possibility with a construction which is analysed as involving an incorporated relative clause (190).

In chapter 8, 'What is a word in Dagbani?', Knut J. Olawsky states that 'all lexical categories fulfil the conditions for grammatical words mentioned by Dixon & Aikhenvald' (212). The chapter is well set out, with a clear summary of the different properties of Dagbani clitics (223). Olawsky also demonstrates how the word has psychological validity as an entity, even though there is no specific term for 'word' in the vocabulary.

The title of chapter 9, by Alice C. Harris, is 'The word in Georgian'.

As well as providing a useful discussion of Georgian, she shows that the criteria for defining grammatical words from chapter 1 are the most reliable ones for identifying the morphological word in Georgian. Some compounds in Georgian can be shown to have two stresses, indicating that they are phonological words, but they can still be demonstrated to be compounds, as the first part of the compound lacks a case marker.

Brian D. Joseph's chapter 10, 'The word in Modern Greek', contrasts with what has gone before: following Zwicky (1985, 1994), he explicitly rejects the notion of clitic as being a useful category. Instead he accounts for 'clitics' in Modern Greek in terms of a typology of typical and atypical words and affixes. Joseph remarks, 'If we want to use "clitic" as a cover term for atypical words and atypical affixes, so be it, but it need not be a grammatical primitive, a construct required by grammar' (244). This is a clear statement of theoretical position, and at first sight would not appear to differ much from Aikhenvald's claim, in the appendix to her chapter, that her typology is about a continuum from affix to word. However, Aikhenvald's chapter claims that there are properties which are unique to clitics, and it would be nice to know whether she sees 'clitic' as a grammatical primitive.

Matthews has the difficult task of concluding this thought-provoking book. He commends as 'a wise precaution' the requirement to distinguish between phonological and grammatical word (271). He also notes that ordering is actually a principle for distinguishing a grammatical unit, such as a noun phrase, not just grammatical word.

This volume does not provide us with a straightforwardly applicable crosslinguistic typology of word. The introductory chapter is extremely helpful in setting out the criteria for phonological word and grammatical word. Once this is done and applied to the challenging data in the following chapters, we find that it raises a whole range of fundamental questions, as Matthews indicates in his concluding remarks. Clearly, given the different theoretical

stances of some of the authors, such as Aikhenvald and Joseph with regard to 'clitic', it cannot be expected that such a volume would present a comprehensive cross-linguistic typology. But, in showing how far the criteria can take us, and where their limitations lie, it performs an important service. Will it prove a valuable resource for typologists? Certainly.

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