Book Review: Mark Aronoff’s *Morphology by Itself: Stems and Inflectional Classes*

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**Introduction**  
From the second half of the 20th century, there has been revival of interests in pushing for Morphology to be recognized and accepted as a separate and autonomous domain of language; and with that, is emergence of diverse approaches to morphology. A strong influence in this quest is the work of Matthews (1972 and 1991) on lexeme-based morphology, which provided a basis for another influential work: *Morphology by Itself, Stems and Inflectional Classes* by Aronoff (1994).
The book covered issues considered to rightly belong to morphology alone, with style and authority. In it, Aronoff argues that morphology be treated as a separate and autonomous module, with its ‘primes and principles entirely independent of other aspects of language like syntax, phonology, semantics or conceptual structure,’ and not as appendage to any of them. To further his case, he examines two morphological phenomena: stems and inflectional classes through lexeme-based framework. Besides, the extensive data presented from a variety of languages, the narrowness and specificity with which he defines and explains or describes the phenomena (morphological operations) of stems in Latin, inflectional classes and gender in Indo-European and Semitic languages, as proof of morphology by itself, makes his argument not only conservative but interesting and radical.

The book consists of a preface, introduction and six chapters, which are explicitly related, though with varying degrees of focus or theme, to support the argument. It also has extensive notes that serve as glossary, a good index, references, as well, a variety of case studies. Titles of the chapters are informative-guide to their contents. One conspicuous trait throughout the book, and which lend thrust to clarity of the thesis is Aronoff’s lucid definition of terms and explanation of concepts. For instance, his tracing from the seemingly broad senses of morphology and formative to the narrow senses of the terms as used in the book, and their point of connection in linguistic discourse (in Introduction); presents the book as one with historical, instructive and pedagogic information.

**Summary**

Chapter 1 (Preliminary Terms), begins with introduction and explanations of some basic concepts and terminologies used in the rest of the book, and necessary to understanding the subject matter. Furthermore, Aronoff carefully distinguishes between the ambiguous and specific meanings (orthodox, technical and novel) of some morphological terms like morphology, morphosyntax, lexeme formation, inflection, derivation, compounding, lexical, lexemic, lexicon, idiosyncratic, grammatical and lexeme. Also highlighted, is the adopted meaning he intends to use in the literature within lexeme-based theory.

The Separationist Hypothesis developed by Beard (1987), which states that the form of inflectional and derivational affixes is separate from their function, and said to be compatible to lexeme-based theory, offered a strong basis to further justify his choice of lexeme-based theory as against morpheme-based theory, for analysis. Lexeme-based theory and morpheme-based theory are radically different linguistic phenomena; according to Aronoff, ‘lexeme-based theory treats the derivation of meaning and realization of sound as distinct processes in word formation, while the concept of morpheme is based on the isomorphism of sound and meaning’ (10). In concluding the exposé on the nature of the lexeme, the lexeme was define as, ‘a lexeme
is a (potential or actual) member of a major lexical category, having both form and meaning but being neither, and existing outside of any particular syntactic context’ (11). In other words, lexemes are noun, verb and adjective stems. These items in all languages are manifested without exception as sound-meaning pairings that refer to something in the real world.

Of significance in this chapter was the introduction of a novel term called ‘morphomic level’- described as an independent level of linguistic structure mediating between morphosyntactic and morphophonological realizations. It is a ‘bridge’ between the mismatches of morphosyntactic features and morphophonological realization, which effects the mapping. The morphomic level plays a significant role in the inferential-realization theory of inflection. Specifically, it makes possible the formal expression of certain kinds of identities, which involve non-natural classes of morphosyntactic properties, but which are not readily expressible by rules of referral. In essence, the operation or existence of this level is the module of morphology by itself, in between morphophonology and morphosyntax.

Chapter 2 looks at the notion of stem, specifically, the status and roles of stems and theme vowels in Latin verbal morphology. Latin is seen to have three verb stems, which are autonomous, and the bases of morphological realization. With data from Latin, Aronoff explains that a stem is solely a sound form without any semantic value, based on realization rules. A stem, in Aronoff’s use of the term, is the phonological domain of a realization rule: that sound form to which a given affix is attached or upon which a given nonaffixical realization rule operate (39). In other words, a stem is purely a result of realization rules.

Aronoff proceed further to explain, the seamlessness of deriving one verb form from another despite their incompatible forms, seen in the derivation of Latin future active participle stem from the past passive participle stem, is because of the existence of another and distinct stem called the third stem. He made effort to show that this stem cannot be reliably associated with a morphosyntactic nor morphophonological or semantic property. It has a purely morphological function and capable of handling the inadequacies of the supine and other verb forms. In some cases the third stem is the bases of other inflectional occurrences, giving the Latin verb morphology its autonomous characteristics.

Like in chapter 1, distinctions were made between stems and other well established morphological terms, base, root, lexical representation and citation form. Contrary to Lieber’s (1981), view of permanent lexicon and suppletion, Aronoff argues that cases of lexeme having more than one stem are due to formations from other stems by morphological productive rules and not just a function of suppletion. And Latin past passive participle and future participle can be predicted with only few exceptions, just by knowing “the present stem of a simple verb (theme vowel)” (43).
Another important notion discussed with regards to Latin stems is the theme vowel. The theme vowel characterizes the various Latin verb conjugations. It is the conjugation vowel, which serves to determine the conjugation of the verb stem, or which inflectional affixes will realize the various morphosyntactic properties that the verb bears in a particular instance (46). In all Latin verb conjugations, the theme vowel appears only in the present stem, as well as occurs in other stems only when they are built on the present stem. As a morphological marker, it indicates the declension or conjugation class of a word and determines the selection of verb endings. Suffice to say, that although theme vowel creates significant role for stems, it is however semantically empty.

To reaffirm his earlier stance on morphology autonomy, in Chapter 3 Aronoff explores in some details the nature of inflectional classes to support the claim that inflectional classes have a life of their own, existing as an independent parts of the grammatical engine (62) as against the beliefs of some linguists that inflectional classes are exponents of morphosyntactic properties.

The core of Aronoff’s argument is that gender and nominal inflectional classes are independent of each other in many languages, and are distinct notions. However, at the centre of this independence is another independent category that is purely morphological, the inflectional class: which determines not the stems but the inflection of lexemes. They constitute ‘sets of pairings of morphosyntactic property arrays with realisations’ (78).

With assortments of data from Spanish, Russian, and Hebrew as well as Latin, Aronoff shows from one level to the other the correlation between gender and inflectional classes in these languages by implication rules; the influential role gender play in Spanish morphology, and inflectional classes as a rule trigger in determining the inflectional class of lexeme in Hebrew, Russian and Latin.

In chapter 4, Aronoff shows the complex relationship between genders, inflection classes and phonological realisations in two Papua New Guinea languages: Arapesh and Yimas. Unlike previous chapters, this begins with a note of caution to the reader about the complex and unfamiliar nature of Arapesh and Yimas data, hence the reliance on the work by Fortune (1942), for discussion of Arapesh, and the one by Foley (1991), for discussion of Yimas.

In this same chapter, Aronoff reinforces the claim that gender and inflectional class are distinct, and belong to distinct levels. Through the agreement system of adjective, verb and proword in Arapesh; which have more to do with the thirteen noun classes or ‘genders’ he tried to establish the claim. The analysis of the agreement system shows Arapesh as gender endemic language, but, gender does not affect its inflectional classes because the distribution of gender in Arapesh is syntactic rather
than morphological. On the other hand, what makes inflectional classes distinct from
gender in Arapesh, although surprising, is the fact that they are determined by
phonology.

Another interesting feature of Arapesh is the concept of default gender, which
is relied upon for concord by agreement marker in the absence of any known gender or
head noun, for whatever reason.

The analysis of Yimas shows that conceptual categories assign gender for some
nouns and phonological form for others. Yimas is a language which conceptually,
genders play a larger role in the morphology. This is to say, gender determines
inflection: none of the agreeing element has its own inflectional class. However, gender
is phonologically driven. It also has its own default system known as the default
phonological gender.

Although the two languages are unrelated, they however, have some peculiar
similarities which are, the assignment of most nouns to genders is on the basis of
phonology, agreement markers is based on their gender systems and both have prefixes
and suffixes. On the other hand, Yimas differs greatly from Arapesh in the degree of
morphological syncretism found among the various genders. Yimas shows no
remarkable proof of separating inflectional class from genders: there are no nouns that
show clear discrepancies of the sort found in Arapesh between an identifiable
inflectional class and an identifiable gender (118).

Nonetheless, the proof of distinction between inflectional class and genders
lies in the agreement categories like adjective and verb, only one affix is possible for
any morphosyntactic property array in a given gender. But with noun, whose gender
and inflectional class are inherent, there is a fairly wide choice, especially among plural
suffixes, and this choice cuts across gender (118). In Arapesh and Yimas it is seen that
gender and inflection are elaborate, intimately related but, neither simple or direct.

Moving on to Chapter 5, Aronoff examines binyanim as inflectional classes in
Hebrew and other Semitic languages particularly Aramaic. After a brief discussion on
the etymology of binyan, Aronoff proceed to explain how the binyan is an inflectional
class, a conjugation, and not derivational categories; and that it is part of the lexeme
formation structure of the language.

Further on in the explanations of the nature and form of binyan, Aronoff shows
that binyan system determine forms of verb stems and inflectional endings. In other
words, the binyan system plays a dual role: ‘it serves as the abstract morphological
mark of the lexeme-formation rule and as an inflectional class; it dictates the
phonological form of the verb’ (127).
From outline of the binyanim system presented, the *qal* binyan though numerically the largest, plays no active role in the formation of new verbs in Hebrew, it is passive; so is *nif'al*. Both are identified as problem cases of the binyanim, and unlike the other binyanim they have two templates or stem for every verb: one used for the past (perfect) tense and participle and the other for future (imperfect) tense. The *qal* is regarded as the default banyan, which means any verb root not assigned to another binyan by whatever means must occur in it. In the binyanim, the *qal* seems to be very influential and is the most common binyan in all stages of Hebrew (146). It is also important to point out that phonological factors play a role in determining the choice of some binyan.

Next, is a comparison of the binyanim system to the *mishkal* system (nouns). Although both are identical in general form, consisting of templates, they are different in their obligatoriness. Unlike the binyan, the *mishkal* is not obligatory in any sense, because it is not inflectional and has no paradigms, but derivational in nature.

Through the explanation of the notions of passive forms, prosody, prefixes, vocalism and stem templates, the complex morphological operations or process of binyan was made easier for understanding, particularly those not familiar with the language. Mapping in passive morphology requires identifying the binyan active verb base; in order to know which passive banyan to replace it with, because it is context-sensitive. The passive form of a verb is the function of its active binyan. Also within the root template of the binyanim constant vocalism are noticed due to the presence of prefixes. The importance of prefixes to the distribution of stem template cannot be over emphasized, as their presence or absence determines the distribution of stem like the *qal*. The binyan is that function that maps a root onto a corresponding stem of template which results in inflectional morphology (138).

Later in the chapter, the discussion on binyanim system was extended to two Aramaic languages: Aramaic and Syriac. In comparison, Syriac has or operates the same binyanim system like Hebrew, but with varying numbers of binyan systems: Hebrew has seven binyanim; Syriac has six while Aramaic has two. The final stem vowel of *pe'al* is variable in much the same way as *qal* in Hebrew and the distribution pattern of the passive in Syriac is like in Hebrew. Syriac passive is similar to the Hebrew in its general outline: the active binyanim determines the mapping of the passive binyanim. Syriac like Hebrew has an unprefixed and prefixed stem for its active and passive binyan.

The discussion of the Aramaic binyanim which is based on the work of Hoberman (1991) reveals that the verb paradigm of the binyanim is radically different from that of the traditional language. Interestingly, the Aramaic language despite the radical restructuring retains the basic Semitic structure of the binyanim which keeps also the binyan as an inflectional class. In Aramaic the binyan following the impact
of the changes has become phonologically driven along the lines of Arapesh gender, interfacing between inflection and phonological form.

In the last chapter of the book (chapter 6) which is the conclusion, Aronoff succinctly reaffirm his aggressive stance for morphology by itself. He rejects the reductionist view of morphology, but advised, rather than treat morphology as an appendage or minute aspect of grammar based on primordial beliefs, there should be an adjustment of understanding each system on its own terms first. Similarly, he recapitulated the main ideas he had discussed in previous chapters, and ends the chapter as well as the book with a charge.

Discussion

In theory and practice Aronoff by this book has made a very strong and radical case for morphology autonomy. While we may accept some of his claims to be plausible, we have reservations on some. Contrary to his posture that “this work is not, however, an argument for lexeme based morphology or against other types of theories” his argument was pro lexeme–based theory. Beside the reason of suitability given for using lexeme-based theory to discuss stems and inflectional classes, the other, was his familiarity with the theory. It can imply then, that another theory of morphology with which one is familiar can also be used for the examination. Suffice to say, the entities that Aronoff assigns to morphology by itself can be accommodated in any framework in which lexical entries have some internal architecture (Lieber 1994). It is possible therefore, to talk about stems and inflectional classes, and explore their nature in details with other approaches other than with lexeme-based theory. Thus his reasons should have gone beyond that.

Similarly, the claim of suitability of the lexeme-based theory is somewhat doubtful, noting the introduction of the morphomic level, which is meant to accommodate or be a ‘bridge’ between gap in the morphosyntactic features and morphophonological realization, which effects the mapping, it can be noted that the mediation of inflection classes between gender and phonological realization is as a result of the operations of morphemes in the linguistic structures. Rather than push for morphology by itself at the word level, it should be at the morpheme level. In other words, morphology by itself rest in the operations of morphemes.

Findings

Most data used for analyses in the book are from Indo-European and Semitic languages. The case for morphology by itself would have been enriched if some data from Niger-Congo (African) languages like Obolo were also analysed. Considering the special characteristics of Obolo language, verbal morphology is inflectional, but gender and inflection are not distinct notion as such. Inflectional class is related to gender by implicational rules. Most Obolo verbs are neutral for tense and do not have regular
tense marking. The future tense is the only tense which is regularly marked in Obolo. It is a language that is heavy with morphemes, and the distribution of active and passive verbs are strongly determined by affixation—mainly prefixes unlike Hebrew, thus the doubt of suitability of lexeme-based theory to handle the morphological complexities of the language. Further, the claim that inflectional classes and gender are separate entities may not be substantiated in all languages and can be handled other than the process Aronoff suggested.

While the theory is fairly strict on lexeme, and through the phenomena of stem and inflection classes in the sense of disallowing interaction between essentially morphological operations and syntax, there are several respects in which it deviates from that notion straight and narrow. In some places in the exposition Aronoff fails to show the distinctness of formal and substantive powers of syntax and morphology.

Aronoff tried to conceptually prove that morphology is not an appendage of syntax and other domains of language, but the fact of reality remains; that morphology like other domains of language cannot exist without the others. Intimate contacts between morphology and syntax are inflection, which is precisely the domain in which the systems of syntactic and morphological rules interact (Anderson 1994), as clearly seen in the language analyzed. Phonology and syntax especially, directly and indirectly played roles or determined the situations, for instance the theme vowel of Latin, binyan of Hebrew and default phonology in Yimas and Arapesh.

To handle this interconnectedness, I think may have been one of the reasons for the introduction of the morphemic level. It would be foolhardy therefore, to deny the contributions, as it seems in the book, of other domains or theories of morphology as irrelevant, in the quest for morphology autonomy.

In view of the important roles morphemic level is expected to play in understanding the subject matter, it will have been worthwhile, if more attention and space were given to the workings of morphemic functions.

Although Aronoff made a clear distinction between productive morphology and the lexicon of listed words, he skirts any detailed discussion of the two in language with unmotivated stems and inflectional classes. Similarly, his avoidance of other issues that are not orthogonal to the debate does not make the book free of polemic. Even though the book is narrow in scope, it can be said to be a rich resource, and engender further scholarship.
References


