Kitap Tanıtımı / Book Review

Contemporary Morphological Theories: A User's Guide. Thomas W. Stewart, 2015. Edinburgh: Edinburgh University Press. 192 pages. ISBN 978-0748692682

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1 Introduction

In this book, Stewart makes the astounding observation that in current literature the 'meta meta-language' of morphology is harried by homonymy, pestered by polysemy, and side-tracked by synonymy (Stewart 2015:151), meaning that it is possible to see the same concept with different labels, different concepts with the same label or even the same label meaning many concepts in the theory landscape. Even simple terms like *lexicon* or *morpheme* may have completely different interpretations in different theories, that's why a survey study which would let us interpret different theories in their own frameworks was much needed in the literature.

This new book on contemporary morphological theories is important for two reasons. First, it presents fifteen important theories of morphology from a relatively objective perspective and tries to explain each theory within its own framework. It further grades them on a scorecard with five scales including being morpheme-based versus word/lexeme based or being formalist versus functionalist. Second, it takes the challenge of putting them to test in three different cases: inflection of nouns in Scottish Gaelic, verb agreement in Georgian, and gerund formation in Sanskrit. The author has a similar study published back in 2008 (Stewart 2008), however this new book enlarges the theory set from thirteen to fifteen by adding Construction Morphology, Minimalist Morphology, and Word-based Morphology while removing Articulated Morphology from the study. He also increases the number of data sets from two to three and has added a new chapter on the typology and the productivity of languages in terms of morphology.

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The author introduces the use of a system of five continua to compare and contrast the different morphological theories analyzed in the book. Stewart argues that the use of continua, instead of binary [+/-] classifications, is a better way of facilitating understanding and collaboration among morphologists. The binarity, he claims, is misrepresentative 'lumping' of close, but distinct, positions, on the one hand, and the over-dramatized 'splitting', on the other, resulting in the implication of greater-than-actual incompatibility between non-identical frameworks (p. 4) The first continuum is morpheme-based versus word/lexeme-based one which deals with the basic unit of morphological activity. The extremes in this continuum put morphemes or words at the center of morphological analysis respectively. The second continuum is in-grammar versus in-lexicon, which refers to the location of morphology in respective theories. As the author also mentions, Spencer & Zwicky (1998) state that morphology is at the conceptual center of linguistics, because words are at the interface between phonology, syntax, and semantics. However, the morphological component has lost its prominent position in grammar as being on a par to phonology to syntax within the period spanning from American Structuralists to generative linguistics. Therefore, 'Poland of linguistics' is a convenient term for morphology, which emphasizes the deteriorating position of the component being at mercy of imperialistically minded neighbors (Spencer & Zwicky 1998:1). The next continuum, phonological versus syntactic formalism, actually focuses on this fact and positions the theories with respect to the attachment they have to the respective 'imperialistic' powers. Being in the center of this continuum means that the formalism of the theory is distinct from the other two components. The fourth continuum to classify the morphological theories is incremental versus realizational and this one mainly deals with the input/output conditions of the morphological operations. Having an additive approach, in which every step adds a morpheme to the base makes it an incremental one, whereas a realizational method would not have one-to-one relation between form and meaning, and therefore the output is determined both by the lexical base and a set of morphosyntactic properties. The author has one more continuum, however, this one, I assume, is a point of comparison to differentiate the theories in linguistics in general, and this is the formalist versus functionalist continuum. Theories in the formalist extreme are more interested in creating some 'neat and elegant' rules and constraints, whereas functionalist analyses generally evaluate language as a kind of cognitive and social behavior, therefore these theories are more interested in the variations, being focused on the language user. This continuum, unlike the others, is not only limited to morphological theories, it is possible to use it in other components of the grammar, such as phonology or syntax. To sum up, we have five different continua to scale the theories, along with five degrees on each of them. Therefore, each theory is represented with five dots on a twenty-five-celled matrix.

In the next section, I present the theories in the book with respect to their point of focus. Although each theory seems distinct, it is possible to put them under three main groups plus a group containing others. These groups are morphology and phonology, covering four theories; morphology and syntax, covering four theories; morphology and the lexicon, covering five theories and the others group which includes two distinct theories, namely the Computational Morphology (Evans & Gazdar 1996) and the Categorial Morphology (Hoeksema 1985). In the third section, I focus on the section relating to gerund formation in Sanskrit in order to illustrate how Stewart explains the mechanisms by showing operations of five theories representing two of the main groups mentioned above. I also share an analysis based on the data presented in the book on the diachronic changes in the timeline of morphological theories. The last section is the concluding remarks about this valuable contribution to the field and provides suggestions for the future studies on morphological theories.

2 The Theories Analyzed in the Book

As mentioned before, the fifteen theories can be better analyzed based on their point of focus. The first group would be the morphology and phonology group which contains Lexical Morphology and Phonology/Stratal Optimality Theory (Kiparsky 1982), Natural Morphology (Dressler 1985), Network Model (Bybee 1985), and Prosodic Morphology (McCarthy 1981). The second group is the morphology and syntax group, covering Autolexical Syntax (Sadock 1985), Distributed Morphology (Halle & Marantz 1993), Lexeme-Morpheme Base Morphology (Beard 1995), and Word Syntax (Lieber 1980). The third group is morphology and the lexicon group containing A-Morphous Morphology (Anderson 1992), Construction Morphology (Booij 2010), Minimalist Morphology (Wunderlich & Fabri 1996), Paradigm and Function Morphology (Stump 1991), and Word-Based Morphology (Blevins 2006). The remaining two theories are distinct in nature, therefore they can be analyzed separately. These are Computational Morphology (Evans & Gazdar 1996) which involves a rather different approach based on the computational principles of hierarchy and inheritance, and Categorial Morphology (Hoeksema 1985) which takes the semantic aspect into account in the framework of the category theory of Montague Grammar (Montague 1970).

3 Sanskrit Gerund Formation and Five Theories in Action

Due to the constraints on space, five of the main theories mentioned above will be explained briefly, and the Sanskrit data will be analyzed in the frameworks of the respective theories. The theories have been chosen based on both their groups and their respective locations on the morpheme-based versus lexeme/word-based

continuum to present a representative sample. A-Morphous Morphology (Anderson 1992), Paradigm Function Morphology (Stump 1991) and Word-based Morphology (Blevins 2006) are in the morphology and the lexicon group and all of them are located on the lexeme/word based extreme of the continuum. Distributed Morphology (Halle & Marantz 1993) and the Lexeme-Morpheme Base Morphology (Beard 1995) are in the morphology and syntax group and the former is located on the morpheme-based extreme, while the latter is on one of the intermediary spots of the continuum.

There are two distinct ways of gerund formation in Sanskrit. The first one is by suffixing *-tvā* to the verb root, as in *bhūtva* from the root *bhū*. If the verb contains a directional preverb prefixed to the verb root, the gerund suffix becomes *-ya* as in *nipatya*, *ni-* being the preverb meaning down or into, *pat* being the verb root and *-ya* being the suffix. Therefore, the choice of the suffix out of two allomorph alternatives is determined by the presence or absence of a previous derivation through a prefix.

We start with A-Morphous Morphology (Anderson 1992). A-Morphous Morphology is a word-based theory challenging the role of morpheme in word structure. It puts derivation in the lexicon and inflection in syntax, and both processes are explained by word formation rules *(WFRs)* which specify the input, the rule and any other conditions. The theory assumes that the preverb is added to the verb root in the lexicon, therefore the gerund suffix meets with the derived verb in syntax while having no information about the internal constituency of the verb. Stewart claims that since the gerund building rule does not have access to the preverb's presence, the theory remains insufficient to explain the case (p. 130).

Paradigm Function Morphology, which the author also has a study on (Stewart and Stump 2007), is an inflection-focused theory which is also lexeme-based. Stump (1990) rejects the framework which puts a boundary between derivation and inflection, as in the Split Morphology hypothesis (Anderson 1982), and places both derivation and inflection in the lexicon. Stewart states that the paradigm function is a mapping from a root to an inflected word (68), and this process is seen as a realization rule, in which the morphosyntactic properties of a language are realized by the rules of morphology (Stump 2001). The important point in the theory is the emphasis on paradigms on a realizational framework. The inflection is not seen as an operation in which a root and another morpheme comes together, it is seen like a function taking an input, putting it into a process, and giving an output. The Sanskrit data necessitates going beyond Stump's work to Spencer's Generalized Paradigm Function approach (Spencer 2013) because the process exceeds the boundaries of inflection. Spencer's framework takes a verb root and a preverb, then returns a complex structure as in GPF (<verb, PV_x>). A new realization rule takes the complex as input and

gives the gerund with the *-ya* allomorph. Therefore, we may see the whole process as two functions operating one after the other.

Word-based Morphology is one of the few theories that is supported with psycholinguistic evidence. Blevins (2006:535) cites findings that not only monomorphemic units, but also morphologically complex words may be stored in memory if their frequency is above some certain level. Therefore, our minds may be interpreting complex words as complete, one-piece units, instead of decomposing them into roots and affixes as in Item and Arrangement approaches or seeing them as an output of a process as in Item and Process approaches. The theory is in line with the Separation Hypothesis (Beard 1982), which states that the form of inflectional and derivational affixes is separated from their functions. Stewart argues that contrary to the *constructive* views to word structure, which builds up a complex word starting with a core and proceeds incrementally, this theory has an *abstractive* view which sees fully inflected words as basic, and indecomposable (p. 77). Seeking one-to-one correspondence between form and function and seeing the word a sum of its constituents does not work in some languages, Estonian for instance (Blevins 2005), which has many syncretic units, which a form may realize many functions. As for the Sanskrit data, since the theory does not make use of distinct morphemes, the exceptional gerund suffix with derived verbs does not present a problem and each derived verb with *-ya* is learnt or recorded separately. Stewart makes an interesting estimate about these exceptional gerund suffix and claims that it might be expected that a derived verb, which loses its directional semantics through conventional use, may leave the exceptional suffix behind and proceed with the more commonly used one (145). Consequently, this theory may be the only one taking the effect of frequency into account in the selection process of allomorphs.

Lexeme-Morpheme Base Morphology by Beard (1995) is a bold attempt to put morphology at the heart of the grammar. Beard (1995:389) states that 'all the borders between all linguistic modules [are] defined as morphological interfaces comprising algorithms which convert the representations of one module to the those of other.' The grammar has a base component that provides structures for the syntax and the lexicon. There is also an additional Morphological Spelling (MS) component which takes the outputs of the syntax and the lexicon and spells out the morphological information on a certain order: firstly, the inherent features of the lexemes, secondly the derivational functions acquired in the lexicon and finally the inflectional features added by the syntax (p. 39). Stewart also states that the theory accepts the Separation Hypothesis and the Split Morphology Hypothesis. One important feature of the theory is the list of grammatical functions which are categorized as primary functions such as agent, patient or possession, primary spatial functions such as location, goal or origin, and non-spatial functions such as concession, distribution or exception. Another interesting observation of the theory is the functional parallelism between

adpositions and case. Beard (1995) rejects the lexical status of adpositions and claims that both adpositions and case function to label the grammatical function of the noun phrases. As an outline, Beard has projected a grammar with two computational components, and a Morphological Spelling component with extraordinary capabilities. As for the Sanskrit data, the order of the functions of the Morphological Spelling component is clearly an advantage for the theory. Since derivation precedes inflection, the mechanism notices the PV form of the derived verb and direct the complex to *-ya* suffix instead of *-tvā*. Therefore, Stewart finds the theory sufficient in explaining the allomorph selection (p. 135).

Distributed Morphology (DM) is one of the strongholds of morpheme-based views of morphology and Stewart explains the theory with a diachronic perspective starting with Halle & Marantz (1993) to the later stages in its evolution, such as Harley & Noyer (2013). The three main properties of the theory are late insertion, which means syntactic terminal nodes lack any phonological content before Phonological Form level; under-specification, which means phonological expressions do not have to be specified for their respective syntactic positions; and Syntactic Hierarchical Structure All the Way Down, which means that the only computational component is the syntax, therefore all the words and phrases are generated in the same component. A lexicon in the sense of word/lexeme-based models, does not exist in DM and the theory rejects the Lexicalist Hypothesis. Despite having no *generative* lexicon, there are three lists in the latest version of the theory (Embick & Noyer 2007), and these are the following: the first list with morphosyntactic features of the morphemes, the second list which has Vocabulary Items that feed the Phonological Form level, and finally the last list, Encyclopedia, which may be seen as a list of idioms in a language. The first step in a grammar is the syntactic operations of merge, move or copy, which feed the second level containing Morphological Operations and Logical Form. Morphological Operations feed Phonological Form and Logical Form feeds Conceptual Interface, which corresponds to the meaning of the structure. Conceptual Interface is directly connected to PF and the third list, encyclopedia, and these connections ensure the interpretability of the phrases produced through the DM model. The operations in DM are relatively numerous, as seen in morphological merger, fission, fusion, and impoverishment or readjustment rules. One important property of the theory is the Subset Principle, which necessitates the phonological exponent of a morpheme to match all or a subset of the grammatical features in the intended slot. The theory is surely a counter model to A-Morphous Morphology (Anderson 1992) or other theories which argues for the existence of a generative lexicon. An interesting property of the theory is that, contrary to the expectations, it is not an incremental theory in Stewart's scales. The theory is placed close to the realizational extreme in the incremental versus realizational scale since rules such as impoverishment has the capacity to delete the

morphosyntactic properties of morphemes in the presence of other morphemes with contradictory properties. As for the Sanskrit data, Stewart assumes that the preverb would be left-adjoined to the verb root or it may also be the case that the preverb and the verb root would merge under one node. Before Vocabulary Insertion, the gerund affix *-ya* forms a Tense node, and this Tense node is place above and to the left of the verb in the syntactic tree. Stewart cites Halle and Marantz (1993:136) regarding allomorph selection, who state that 'the [Vocabulary] insertion operation has available the entire syntactic tree so that the insertion at a given node may make reference to features at other – primarily adjacent – nodes'. Therefore, DM is sufficient in gerund allomorph selection process in Sanskrit (Stewart 2015:133).

4 A Diachronic Analysis Based on the Book

Stewart's scales give us the opportunity to compare different theories on the same scales and maybe to see how the morphological theories evolve in historical timeline in the last couple of decades. When we compare fifteen theories in the book in terms of the year they were published and their subsequent gradings in Stewart's twenty-five-celled property matrices, which are five scales times five grades, we can roughly see which properties of the theories have been enhanced or diminished along time. This analysis has three main findings. The first one is that the theories move to the direction of word/lexeme-based extreme instead of morpheme-based ones. The fact that the latest theories such as Construction Morphology or Word-based Morphology are word/lexeme-based has an important role in this observation. The second important finding is about the incremental to realizational scale. The matrices show that newer theories are more incremental in nature. This finding is more or less expected if we consider that even Distributed Morphology has incremental character and the existence of syncretic units in many languages, I assume, makes it impossible to set up a one-to-one corresponding, incremental theory of morphology. Our last finding is about the three remaining scales; namely, formalist versus functionalist, in-grammar versus in-lexicon, or phonological or syntactic formalism properties of the theories. The matrices show that the theories have moved to less extreme, more intermediary spots in time. I would expect to see that syntactic formalism would increase due to the increasing influence of syntax over grammar, however the theories cumulate in the intermediary spot between phonological and syntactic formalism. One side note on the findings is that when one checks the evolution of trends in terms of these properties in time, one sees that a specific theory is almost always, at four out of five scales, in line with the trends and this theory is Construction Morphology.

5 Conclusion

Contemporary Morphological Theories: A User's Guide is a crucial book for linguists or students who want to see the most important theories without any confusions of terminological differences. It clearly explains each theory in detail and presents how they operate in three different cases. Despite having himself worked on Paradigm Function Morphology, Stewart presents a relatively indifferent perspective to the theories and tries to show the pros and cons of each one. One point of improvement may be the update of the resources about the theories, because some theories are in the midst of their evolution and each new study brings new perspectives. The references are mostly the same with the old version of the study (Stewart 2008), and this especially applies to Distributed Morphology, so I would recommend adding more recent resources such as Matushansky & Marantz (2013) for the new edition of the book. It would also be nice to group the theories in terms of their point of focus such as syntax or phonology, to enable the reader to compare and contrast the theories with their respective counterparts.

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