Research Article

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Word Formation Head and the Typology Analysis of the Word Formation Corpus in Albanian

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Abstract

Word formation in Albanian studies represents many problems that have been identified not only in university level but even in the pre-university one. This paper intends to examine the concept of the head as part of the word formation process, as this is a term, which is not encountered in the Albanian traditional studies. It will be introduced in this study from the perspective of the generative grammar theory. The aim of this paper is to discuss and argue about the similarity of the process and of the terminology when used at the syntactic and morphological level. Furthermore, there will be introduced some criteria based on which the head is defined at each level, and by providing arguments that some of these criteria are not applied at both levels. Then, it will be examined how the term head is applied at the morphological level, by describing its features when it is a derivational morpheme, or when it is the root/base form. Finally, two ways of approaching word-formation will be presented: one of them is based on the morpheme and it includes the concept of the head (morpheme-based morphology), and the other is based on the word (word-based morphology), where the concept of the head has not been excluded, while word-formation rules are being drafted. The approach of the study will be from an analytical and comparative perspective.

Keywords: *head, root/base, word-forming base1, right-hand side rules, morpheme*

1. Introduction

Word formation is that level of study, which used to be and still poses its problems in Albanian studies, however, not the only one. These problems have been present from the earliest stages and

[1]*In this paper, we are going to use the term word-forming base and form-forming base instead of just the term stem, as there is a need to distinguish one from the other.*

they apply even nowadays. It is an established fact that word formation has been studied from the perspective of traditional morphology. Similarly, Plag defines it as part of the study of morphology together with the inflection (Plag, 2002: 22). However, it should be noted that at the levels of generative study, word formation is left out and it is considered as a separate level of study.

One of our papers, which was presented at a conference organized to acknowledge the contribution of Professor E. Çabej a few years ago, introduced into this field of study, for the first time, the concept of the head in word-formation (proceedings of the conference were not published). Since then, we have pointed out the problems that are observed in our studies and unfortunately, they have not changed substantially.

2. Reviewed Literature

For this research, in relation to Albanian studies for the word-formation aspect, there have been consulted the studies of Çabej and Xhuvani on "Albanian prefixes and suffixes" (Pristina: 1987), Shaban Demiraj (Morphology:1967), Enver Hysa (Word-formation of nouns:2004), Androkli Kostallari (Sf:1976), Grammar of the Albanian language I (2002) etc.

These authors were selected, as they represent the main authors whose works were codified in Grammar I (Albanian Academy of Sciences, 2002), which remains a reference text even today in Albanian studies. In them, the process of treatment of word formation is taken into reference, which in theoretical treatments appears quite undefined. In concrete analysis, it reflects a completely mechanical process of identification of affixes.

In relation to the concept of the word-formation head and the two approaches suggested by foreign scholars, there have been researched Bloomfield (1935), Bauer (1983, 1989, 1990), Aronoff (1976), Selkirk (1982), Williams (1981), Guersel (1983), Di Schiullo & Williams (1987), Lieber (1981), Baker (1988), Carstairs-Mc Carthy (1992), Plag (2002) etc.

As for the concepts of morpheme-based morphology and word-based morphology, Aronoff (1976), Plag (2002), and Akcema (2007) have been studied.

3. Methodology of the Study

The concept of the word formation head will be addressed again; however, its examination will be expanded by taking into consideration other studies. Initially, the concept of the head is provided from an analytical point of view as a term borrowed from syntax, where there will be a detailed analysis of the issues related to its criteria at the morphological level. Then the generative treatment of the head is given, its schematic presentation illustrated with examples from the Albanian language. In this way, the methodological basis of the study of this paper will initially be descriptive, as the data of the studies so far in the Albanian corpus will be clarified through the traditional theory. Even in the introduction, we gave a description of the situation and the scholars who dealt with this issue.
In the following, our proposal will be the generative approach, thus introducing the concept of the head in word formation. In this context, the descriptive methodology will be combined with the analytical approach.

This paper will then follow with the two generative approaches for the study of the word-formation corpus, which must accept the above-mentioned concept. These two approaches comprise the one that determines the rules based on the morpheme (morpheme-based morphology, which has been discussed above and which has been partially applied in traditional grammar) and the rules based on the word (word-based morphology). The paper will discuss the terminological concepts used in Albanian studies and how they are conceived in the two above-described approaches. Finally, some suggestions will be made in relation to the method which has more advantages to be applied to the Albanian corpus. Consequently, the discussion of the issue in question will have an analytical, comparative, and in the end a suggestive character.

4. Word Formation in Albanian Studies

Problems in the study of word formation have been confirmed by other Albanian researchers, too. Thus, Çabej and Xhuvani note *"In our language, the identification of these (prefixes) is more difficult than for suffixes. The very fact, that especially in the field of Albanian studies, the boundaries between prefixation and lexicalized phrase {përngjitje}[2] are not always clear-cut, makes it even more difficult the separation of these word formation elements from the base words that are formed with them."* (Çabej and Xhuvani, 1987: 49). Shaban Demiraj would consider *lexicalized phrases* as part of compounding in the morphology book that he wrote. (Sh. Demiraj, 1967: 1).

Ten years later, A. Kostallari developed some criteria to distinguish lexicalized phrases from compounds. In his article, he stated that:

> *"Compound words and lexicalized phrases cannot be separated from each other. They have some features that bring them closer. Most importantly they have genetic links. Comparative linguistics researchers have concluded that compounds have originally derived from the phrases, which have undergone various phonetic, morphological, and semantic changes with the development of language. (A. Kostallari, 1976, No. 2: 9).*

E. Hysa, when discussing the issues in relation to the word-formation boundaries, reaffirms once again the problem of the distinction between prefixation and lexicalised phrases, or prefixation, lexicalised phrases and some other mixed types (Enver Hysa, 2004: 43).

The Grammar of the Albanian language emphasizes the fact that prefixation has been developed in close connection with compounding and lexicalised phrases. Similarly, after the differences between compounding and lexicalised phrases are drawn, Kostallari's idea of a common historical origin is affirmed (Gramatika I, 2002: 66-72).

Acknowledging the gap between these studies, Professor J. Thomai would rightly state:

> *"Nevertheless, the above-mentioned studies do not reveal the modifying power that derivational morphemes have" (J. Thomai, Sf: 1983).*

In addition, furthering the discussion along the same lines, it can be stated that problems in defining quasi-affixes are frequently encountered. In Albanian traditional studies, word formation without any affixes (which is a term debatable in itself) is considered a type of morphological word formation. On the other hand, conversion is considered a non-morphological word formation type. This is another controversial case, as in fact both these types are identified during a syntactical distributional analysis. As a matter of fact, many difficulties are encountered while determining accurately the mixed types.

For instance, in other cases even though it is claimed that *"the formant is called the word-formation instrument and its meaning in a derived word"* (Grammar 2002: 55), during the word-formation analysis the meaning of the word forming base plays a key role. The base form should bear

[2] *Grammar I define compounds and përngjitje (lexicalized phrases) as two distinct word formation types. Both models form new words because of joining several word-forming bases.*
"Përngjitja (lexicalized phrases) is a type of word formation, where new words are formed as a result of a phrase, which could be a noun phrase, prepositional phrase or a group of words, becoming one single word." (Grammar I, 2002:75). "Compounding is a type of word formation, where new words are formed and which consist of one, two or more motivating stems." (Grammar I, 2002:70).
The distinction between these two types is drawn by providing some criteria, which could be debatable, such as, lexicalized phrases require time to form as a new word, whereas compounds could be formed synchronously; përngjitja (lexicalized phrases) consist of separate words, which maintain their syntactical relation; the meaning of lexicalized phrases is equal to the meaning the original phrase; a lexicalized phrase can also have in its composition only one content word. (Grammar I, 2002:76).

partial semantic similarity with the newly derived word. When it comes to the semantic meanings of derivational morphemes, these are not addressed appropriately.

There is no discussion in relation to the different values of the word-formation formant. Most importantly, the data collected from the word-formation rules that reflect both the semantic properties and the productivity of the formants, or of the word-formation base are not even organized. Therefore, the relevant restrictions are also not identified in this context. It should be added that in practice even this suggested process of analysis is not an analysis per se, and it is reduced merely to a mechanic identification of derivational morphemes and word formation bases.

The morpheme-based analysis has its own gaps, and it is not comprehensive as there are problems in the theoretical definition of the concept of the morpheme. This statement is easily supported by simply examining the exercises included in pre-university textbooks (Filara, kl. VII, Pegi kl. VII, Albas kl. VII).

In this context, the word-formation analysis in our studies is in principle presented mostly as an identification of morphemes. The process is described as: "Word-formation analysis has the task of describing how the morphemes, constituting a word, are combined with a derived word, to shed light on the system of relations and relationships that they have with each other." (Grammar: 53).

Thus, according to this statement, this analysis leaves out a conversion, compounding, lexicalized phrases, and locutions (idioms), which cannot be conceived as a simple combination of traditional morphemes. (Conversion does not involve any morphemes. We should recall the fact that it is about o inflectional morpheme and o derivational morpheme in the context of inflection, but not in the context of word formation. [Grammar: 48]).

In relation to morpheme analysis, we also find this statement: "As a rule for determining the boundaries of morphemes, there should be found examples with minimal changes in form and with a partial change in meaning." (Grammar, 2002: 50). According to this statement, this process should be performed when comparing "examples", as it is not clear, whether it refers to a morpheme or word, but the examples show whether the analysis refers to the word (padrejtësisht (unjustly), padrejtësi (injustice), i drejtë, (just) [Grammar: 50]). Even the definition regarding the type of partial change in the meaning is vague and not clearly explained, bringing about problems in identification.

If we were to refer to the analysis and especially its schematic representation, we find again the formal identification of morphemes [vul + os (to stamp) (Grammar: 63); gjith + monë (always) (Grammar: 75)], without providing any details about the semantic structure or about the consistency of the model or its productivity, so that it could be generalized as such. In other cases, there is no schematic presentation at all, only the type of word formation is identified.

Based on this observation, we can say that the above analysis, even from the traditional point of view, does not generalize all the patterns of word formation, in this way, it leaves out conversion and zero morpheme word formation, as well as the example of idioms (locutions).

Similarly, there are some issues identified when it comes to acronyms and the dropping of the morphemes, which have a word formation value, (for example, WHO is an acronym standing graphically as a single word, however, there are three words joined together, i.e., World Health Organization; or the word (punim (product of the verb work / the working) has the following word formation pattern [[[punë E]+o F]+im E]) / [[[work N]+to V]+ing N] but the traditional morpheme analysis does not identify the suffix – o, otherwise morphemes would be identified as pun/im, as a two-step word formation, while for the forming of these word, there are three steps involved.

The composite and the lexicalized phrases are distinguished from one another since they are formed by word forming base, traditionally defined as words, even though this grammar confirms that the morpheme could also be a word (Grammar: 44).

A distinction is drawn between derivational morphemes and word forming base, such as the case of the prefix pa- (un-) i pakënaqur (unsatisfied) and pa – as a preposition of the mixed case of lexicalized phrase i papunë (jobless).

As for the above, it can be noted that the way the process is dwelled upon, it shows that there is not a unified approach when identifying the word formation rules, it sometimes mentions the

identification of morphemes as the basis of the analysis and in other instances it refers to the word as the basis of the analysis. Therefore, there is a lack of consistency in terminology and methodology as well as it makes the process unclear leading to guesses and mechanical identification.

There are not any well-defined rules even for the units that have been distinguished as derivational morphemes, where the relevant restrictions are also defined. It is necessary to clarify that the current concepts of the morpheme and the word change from the ones that have been used by the Albanian studies, the generative ones and not limited to them only, because the morpheme is not only the smallest unit with a meaning (Gramatika, 2002: 4-33), even though this is what Plag uses in its initial introduction. The morpheme is also characterized from the phonetic, semantic perspective and the restrictions, which arise when it combines with certain base forms [Plag, 20022:39]. While the following features are provided for the word: the word as belonging to a part of speech; words as syntactical atoms; words as having one stress; words as a unit that cannot be further broken down into parts [Plag, 2002:25]).

However, he explains that not every word formation pattern is a result of the joining or combining of morphemes and he mentions the example of idioms, or derivational morphemes, which have different meanings when combined with different word forming bases (further down we will analyse përball (to confront), përpunoj (to process)).

Even the labelling of the derivational word formation process is related to the word formation formant for the derivation (prefixation, suffixation).

Nevertheless, it should be added that when describing such formants as prefixes and suffixes as part of the word-formation of certain word classes, semantic characterizations for them are provided but from the initial perspective of their identification, the process seems to be completely mechanical (for instance, "with the suffix -im action nouns of masculine gender are formed." (Grammar. 2000:140), "with the suffix -ar nouns of professions are formed from nominal stems." (Grammar, 2002:134).

Likewise, the analysis related to the semantic level of the unit under examination mostly refers to its word-formation stem and it talks only to a limited extent or not at all about the word-formation formants.

It can be stated that word-formation rules, which introduce the derivational (complex) unit as a lexical unit with certain morpho-syntactic data and the way it is formed depending on certain word-formation heads and by also foreseeing the respective restrictions, which depend on the combination with certain word forming bases (when the head is a derivational morpheme, or even when the head is the word forming base) and the reasons for these restrictions, are missing in the Albanian studies.

As for the above statements (and not limited to them only) the analysis of the facts makes us think that the problem, perhaps, needs to be approached from other perspectives and not only from the context of traditional grammar.

5. The Concept of the Head

The concept of the head is first encountered in grammar in relation to Bloomfield's syntactic plane, the scholar who defined it as *the obligatory element that shares the same distribution as the entire endocentric structure* (Bloomfield:1935, when distinguishing between endocentric and exocentric structures).

Bauer (1990:2) gives a summary of the approaches and discussions made about this concept later by Zickey (1985) and Hudson (1987), along with her previous articles, and provides us with the following criteria for this concept:

Semantically a syntagm is a hyponym of its head. The reference for the term is Lion (1977), who defines hyponymy as a paradigmatic relation of meaning, its reference (A.D.) (encapsulation) through some syntagmatic modifications of the superordinate lexeme, e.g., *buy* is a hyponym of *take* (in Albanian language), *friendly* is a hyponym of *pleasant* (i.e. a kind of partial semantic metonymy A.D.).

- The head of the phrase plays a subcategorizing role (in the sense that it determines the type

of relations with other heads due to its features).

- The head of the phrase bears morpho-syntactic details during the entire construction (induces the syntactic composition within the phrase).
- The head is the directing element, i.e., it determines the morphological forms of other units that depend on it (it directs distributional agreement).
- The head is the distributional equivalent of the entire syntagm (what Bloomfield notes and it has to do with its semantic-syntactic projection throughout the sentence.).
- The head of the syntagm is the obligatory constituent of the phrase (there can be no phrases without the head).

Certainly, these criteria have also been criticized. For instance, in a 32-page article, Bauer (1990), after examining the fulfilment or non-fulfilment of all these criteria in English prefixes, suffixes, and even in inflectional morphemes, notes statistically that the tendency to define the concept of the head even in word formation or in inflection through these criteria borrowed from syntax appears to be difficult and not generalizing (Bauer, 1990: 20), even though the ***binding and categorical characterization*** may be two consistent criteria in morphology, according to Anderson and Ewen (1987: 80).

However, the reality of defining the head nowadays, after such a long time has passed since it has been defined, at least by generativists, that the head is determined by the right-hand rules (Right Hand Rule) and it has already been applied as a concept [we would like to recall that even Bauer at the end of her article does not deny the obligatory nature of this term, even by justifying *that perhaps the reality of the corpus researched by her applies only to English and other codes might not have the same problems raised by her* (Bauer, 1990: 31)] and it is not questioned, at least in manuals related to word formation (Plag: 2002).

Then, why is this concept so important in morphology, including here not only word formation, but also inflection?

The arguments given in relation to this question are not a few, such as:

- To avoid some inadequacies of rules based on constituents, which do not distinguish the head. More specifically, this concept, according to them, shows the nature of deep structure relations and all the relations, which are based on the relations between the constituents (Anderson, 1971: 28-29).
- To allow and formalize the transfer of the details of the category of the head to its other dependent units (Bauer, 1990: 21).
- To simplify the generative-transformational component of a grammar (Robinson, 1970).
- To draw parallels between different syntagms (Mathews, 1981: 166; Chomsky, 1970). In the morphological context between different word-formation stereotypes.
- To draw generalizations about the position of the head/modifier in different languages (Hudson, 1980: 183). In word formation, it would have to be for the relations between head – word formation, head - root, derivational morphemes - head, derivational morphemes - root, etc.
- To explain the reason why modifiers, move along with the head in some languages (Hudson, 1980: 184).

Bauer is right when she notes that some of these reasons have more to do with the dependence relations rather than with the relations between constituents, where the head is supposed to be the obligatory one (Bauer, 1990: 22). Nevertheless, she clarifies and provides the two essential elements in the analysis and where this discussion is based on at the morphological level:

1. rules concerning the ***percolation*** or transfer of word class grammatical data and syntactic distribution; and
2. statements related to the ordering (listing) of heads and modifiers.

In view of the discussion and after the literature of some other authors have been reviewed, such as Plag (2002), (Akcema 2007) etc., in this paper we have decided to maintain the position, which is also present in most of the university textbooks, that the concept of the head is also present

in morphology, respectively in word formation.

5.1 The generative concept of the head

In relation to the concept of the head, we have referred to Selkirk, who proposed a new categorization, distinguishing between W-syntax (Word syntax) or morphology and S-syntax or true syntax. At the same time, she emphasized that: "*the structure of the word has the same general formal properties as the syntactic structure and, moreover, it generates from the same type of system rules*" (Selkirk: 1982). Selkirk's morphological (W-syntax) rules resemble the S-syntax rules for the following two reasons:

- **they were both rewriting rules outside of the context**
- **both used the so-called big categories such as nouns, verbs, adjectives, adverbs (N, V, A, A);**

With a view to examining what the generativists had in mind for the word, as the basic unit from where the analysis should start, we refer to Di Schiullo & Williams, who, in the manuscript "On the definition of the word" (1987) make an effort to clarify and define the main issues involved in constructing a theory of morphology and determining its relation to syntax. Inter alia, they distinguish three notions determined by linguists, who consider them, when they talk about the notion of the "word":

a. The lexeme, according to them means a unit of language that is, at least in part, idiosyncratic with its details or its meaning, and therefore it cannot be completely broken down into parts (Baker, 1988: 259). It can best be memorized and stored in the mental lexicon (A. Carstairs-McCarthy, 1992: 11).
b. The morphological object. This is precisely the domain of morphology, where morphological objects are elements characterized by a system of generating rules where the apostrophes (primes) are the prefixes and suffixes, stems, and roots of a given language.
c. The Syntactic Atom, which is seen as the smallest unit analysed by syntax (Di Sciullo & Williams: 1987).

Placed within such a context, the word began to be studied as part of what were called word formation rules. To define these rules, there were various concepts, which were used (such as the head, non-head, the binary structure of each word-formation node, percolation theory, mirror principle, lexical hypothesis, adjacency, right-hand rule, "there is one" rule, hypothesis on a unique base, etc. The morphological and phonological re-arrangement rules were drafted as many other specific elements for certain languages.

The three main linguists who dealt extensively with defining the notion of the head in morphology include Lieber (1981), Williams (1981), and Selkirk (1982), who also provided several definitions such as *derivative suffixes are heads; prefixes are not heads, with a few exceptions; some inflectional morphemes may be heads; the head is positioned to the right in compound words. The same rule was generalized and applied to other derivational structure*s (Williams: 1981).

In morphology, it is generally stated that the head of a structure is the element that defines the category that the entire word belongs to (Scalise, 1994: 12).

According to this idea, in a lexical unit like [puno] (to work) the root is a noun, but the whole word is a verb, hence, the head of this unit is the suffix - o, which, in this case, defines the lexical class of the entire unit (bearing also the categories of number, person, tense, mood), and modifies the word semantically, as it transfers to the larger constituent through percolation, features which are related to certain lexical entries, such as [+ action], etc.

[[[punë] N +o] V]

As noted in the works of Aronoff 1976, Williams (1981), or Guersel (1983), "different derivational morphemes may be more inclined to be attached to certain heads, or to other base forms, for instance, in English, they take the example of the suffix -able related to Latin stems and which productively forms nouns with the suffix -ity" (Akcema, 1988: 123).

In fact, we find similar statements in Albanian studies, although they are sporadic and completely not within the context of this discussion. We are referring here to the discussion about the derivational allomorphs of Albanian ***sh-*** / ***zh-*** / ***ç-*** which are phonetically conditioned by the preceding sound of the word formation base such as *sh+thur, zh+vidhos, ç+armatos* [Grammar: 45]. If we go back to the generative notion of the head, it is accepted that it always stays in the right position of the word, (known as the Right Hand Rule, although there are specific cases, that later led to the codification of the term non-head or the acceptance of irregular cases, or of certain structures which remained within certain filters of the classification [- Lexical Insertion]).

The same theory also states that suffixes usually tend to be heads, as they change the lexical category of the root in most structures, whereas prefixes do not do such a thing. (This fact is also stated in our grammar: *"Suffixes have a classifying function, i.e., along with the new meaning that they provide to the word-forming base to which they attach, they also determine the part of the speech of the new word*". [Grammar: 64]; *Prefixes do not change the grammatical category of the lexical item to which they attach*. [Grammar: 61]). However, these statements do not mention other features that prefixes and suffixes have, such as: Can all suffixes be heads, and can all prefixes be no heads? (This question is raised when we consider other examples where the prefix also changes the grammatical category of the root such as ***përbalt*** *(to smear),* ***përkrah*** *(to support),* ***përball*** *(to confront),* etc.) The root of these words ***baltë,*** (*mud*) ***krah*** *(arm),* ***ballë*** *(front)* are all nouns and the new words belong to the class of verbs. Furthermore, the reasons why this happens are not clarified. It does not precisely describe the types of heads to which a certain affix can be attached and its modifying values from the semantic or word class category point of view.

During the above elaboration of the concept of the head, the notion of the ***percolation*** was mentioned, which is a crucial one. It is considered as a process, through which the lexical category (noun, adjective, verb, etc.) and the semantic and morpho-syntactic features (grammar categories); **for the noun**: abstract; feminine; masculine; **for the verb**: regular; conjugatable and the relevant categories, etc.), are transferred to the superordinate node of a morphologically complex structure (Scalise, 1994: 113).

For a lexical unit like the verb *ripunoj (rework),* the analysis would be as follows:

[ri V + [[punë N] +o] V]]

At the first level of the analysis, the head would be the suffix ***-o***, because the features such as regular, transitive, tense, person, and number are transferred directly through percolation to the superordinate lexical item ***ripuno*** *(rework)*. At the second level of the analysis, the head is the lexical item ***puno*** *(to work)*, as the prefix - ***ri*** (- re) does not convey new information about the superordinate node. The percolation (transfer) of features through to the heads allows for the statement of the morphological obligation that Williams calls the Atom Condition (Williams, 1981). Moreover, the suffix is positioned on the right, whereas the prefix is on the left, which means that the suffix meets the Right Hand Rule.

This is a typical regular example, however, there are also a lot of other examples where the item which shares the same features with the main element can also be found on the left. In Albanian, this case would be best illustrated with the following words ***përball*** *(to confront)****, përbuz*** *(to look down on)****, përdor*** *(to use),* ***përkrah*** *(to support),* ***përgjunj*** *(to humiliate),* ***përshtat*** *(to adjust),* ***përmend*** *(to mention)****, çmend*** *(to drive sb crazy)* etc. (Gramatika, 2002).

[për V + [ballë N]]

Within the same line of the argument, the head of the word, as a prefix and a suffix, was examined in compound words. A distinction was drawn between the lexical head from the syntactical one. The concept of adjacency was also introduced and the tree structure relying on binary diagrams was defined. The Unitary Base Hypothesis (UBH, Aronoff, 1976) became the classifying criterion, the rules of derivation and compounding were defined, as well as the relations between them and inflection and then continuing with specific cases for every language.

Undoubtedly, when these are applied in practice inductively in every language, cases of deviations from the general rules are observed and when they become redundant, generalizations are made.

5.2 Morpheme-based model

In this context, the analysis introduced by the theory that defines the head as a word-forming unit, explains the word-formation rules that are outlined after having studied the word-forming bases that a derivational morpheme is attached to, the semantic properties of derivational morphemes, and certainly by distinguishing the relevant restrictions. We are giving an example about the prefix për – when it is part of a derived word and the head is a certain root (përpunoj, (to process) përshkruaj, (to describe), përzë (to force out), and when it is a head (përball, (to confront) përbuz, (to despise) përdor (to use sb), përkrah (to support), përgjunj (to humiliate), përshtat (to adjust), përmend (to mention):

Word-formation rule 1 [për -]
Phonological level: / për / -X
Base/root X = F (përshkruaj, përpunoj) (to describe, to process)
Semantics "to work further"
Restrictions derived words, where the base is a noun; the meaning of the action
Word-formation rule 2 [për -]
Phonological level: / për /-X
Base/root X = F (përkrah, përball, përbuz) (to support, to confront, to despise)
Semantics "a certain attitude towards [+animate; +human]"
Restrictions do something further, in a more profound way (to process, to describe Albanian Dictionary)

As can be noted from the above schemes, we have a very detailed description of the semantic, phonological, and morphological levels (along with a part of the syntactical level).

Likewise, the process does not simply identify morphemes, but it also gives their governing semantic properties, as well as the relationship with the base/root, which is considered in the context of the word. Therefore, we shifted from the concept of morpheme into the word.

Furthermore, the relevant restrictions are given for every rule and these restrictions foresee other rules for the same unit (prefix për- in our case). We should add that we have not given here all the word-formation rules for the unit [për-].

6. Results and Discussions

(Morpheme-based morphology process and word-based morphology process)

The presentation of the above problems that arise from the concept of the process as the identification of morphemes is in fact also mentioned in English. We recall Plag's explanations by using this concept to distinguish conversion, zero morphemes, acronyms, and deletions of the morphemes that they create (Plag, 2002: 27-33).

Considering these problems Aronoff pointed out that in the generative theory, derivational morphemes are not independent units and they are not part of the lexicon, whereas words are. And what is analysed as a constituent morpheme in the morpheme-based morphology is conceptualized as a phonetic and semantic similarity between the set (in the traditional terminology of the word under analysis and its word-formation stems) of words in word-based morphology (Aronoff 1976).

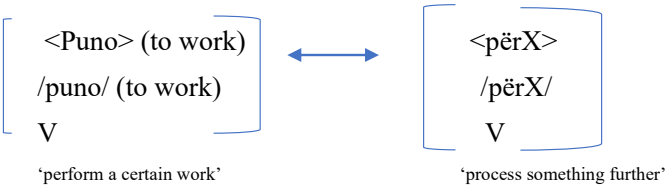
Plag adds that "in this way, morphology expresses the relationship between morphologically related words not by breaking down words into components, but by formalizing the usual features of the word set, for instance, the relationship between basic words (word-formation stems with traditional terms) and words derived from them". (Plag: 236-237).

Schematically, the following data are presented, for example (the way we presented above):

- orthographic basis (as a unit taken under analysis) <X>
- phonological form / X /
- details of the word class category e.g., verb V
- meaning: 'X'

All these features are given for both the word-forming base and the derived word. We are taking an example from Albanian that is again related to units that are traditionally formed with the prefix *për -*.

The word formation rules for the word [***përpuno***] *(to process)* according to the word-based morphology would be:



The above schemes are easily distinguished from those given earlier, as the analysis considers full words as constituents with certain semantic and categorical values, in contrast to the first schemes where the process is distinguished as the identification of joining morphemes together, even though morphemes are depicted both from the semantic perspective and the category of word class that they belong to.

Certainly, the last schemes, which are based on the word-based morphology seem more detailed and are within the generative framework, which reflects the relationships between constituents.

According to Plag, "What is analysed as a morpheme in morpheme-based morphology is part of the semantic and phonological description in the word-based model." (Plag, 2002: 238).

The advantage of such a presentation (word-based model) is the fact that this model includes both the derivation with derivational morphemes or without them (while the other model did not include, such as conversion, acronyms, deletions, blending [Plag ,2002 : 239]).

On the other hand, even this model has had its criticisms in relation to backformation, which does not reflect the internal direction in the relationship between the two sets of words. Likewise, even with conversion, it has not been determined how productive the direction is on both sides.

The word-based model camouflages to some extent the word-formation dominance of the heads, which are derivational morphemes, as they emerge within the word context.

Nevertheless, Plag suggests that both models are recommended to be used, since the elements, that are not included by one model, are reflected by the other model. (Plag, 2002: 244)

7. Conclusions

From the above presentation, we saw that the studies and treatments so far in the field of word formation in Albanian literature do not even show methodological regularity and do not correctly reflect the word formation process at all its levels.

These treatments appear mostly as identifications of affixes in concrete analyses, without clarifying the cases of how these affixes modify in certain cases the grammatical categories of the new word.

The semantic value of affixes and the fact that an affix with certain semantics is only associated with certain heads, creating the corresponding restrictions regarding other heads are not taken into consideration.

Such a thing also fails to determine the adequate syntactic distribution, typical for these types of connections.

The current treatments of Albanian do not even distinguish the phonetic modifications that are reflected in newly formed words, such as sound drop, accent shift, etc.

At the end of this paper, we can say that in the context of the Albanian studies on word

formation, it is considered a necessity for the following to be introduced:

1. The concept of the head, since it reflects a variety of properties at different levels of analysis, where the derivational morphemes are the heads or when the head is the word forming basis.
2. The application of such a concept would highlight the semantic and word class category properties even in relation to a single unit.
3. The description of these properties would also identify the restrictions of certain heads in relation to the morphemes to which they attach, to form the complex/derived word.
4. The preliminary study of the above-analysed issues should make up the related corpus, which will provide scholars with the opportunity of drafting a guidebook, which would describe the word-formation rules provided by the Albanian language lexicon.
5. The typology of word formation rules is suggested to have the word-based pattern intertwined, or in relation to the empirical results of the morpheme-based model.

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