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Pregledni rad

Review paper

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## **WORD FORMATION IN ENGLISH: DERIVATION AND COMPOUNDING**

Within the broad field of word formation in English, the paper outlines particular available means for production of new meanings in established forms of words in the English language. More specifically, the paper presents two major types of production of complex forms (derivation and compounding), with accompanying definitions and generalisations which are substantiated with relevant examples which are further discussed and analysed.

**Key words:** English word formation, derivation, compounding

### **1. INTRODUCTION**

English appears to abound in mechanisms that help enlarge its lexis. This paper aims at outlining a number of different available means of getting new meanings of words in established forms in English by discussing possible ways to get new meanings.

The purpose of this paper, however, is not to provide an exhaustive survey of English word formation, as this has already been done by many authors. The intention, in fact, is to provide an outline of particular types of word formation in English, focusing on derivation and compounding, which closely relate to new meanings of words in the forms that have already been established. More particularly, the paper presents derivation and compounding as two major types of production of complex forms (Bauer, 1983).

Most examples representing the corpus in this study have been taken from Hudson (2000). Crystal (2002), Adams (1973), Kövecses (2002) and Bauer (1983) have also proven invaluable as sources of a significant portion of examples in the study.

The paper provides an overview of the theoretical preliminaries in the field of word formation, including the definition, and it continues with the problems suggested by various authors, as there are several problems suggested by leading researchers in the field: the status and definition of word, establishment of rules, the morphology and the lexicon, the process of lexicalization, which are followed by the analysis and discussion on examples selected for the corpus in this study in the Analysis and Discussion section of the paper, with the focus on derivation and compounding.

## 2. THEORETICAL PRELIMINARIES

Word formation is nowadays perceived to be such a confused area of study that it would not be possible to write an uncontroversial introduction to the subject. Bauer (1983) recognises that much of the confusion in word formation studies is terminological.

He further acknowledges that, given the confusion that reigns at the moment, it should be borne in mind that virtually any theoretical statement about word formation is controversial.

The ways in which new words are formed, and the factors which govern their acceptance in the language, are generally taken very much for granted by the average speaker. To understand a word, it is not necessary to be aware of how it is constructed, or whether it is simple or complex, that is, whether or not it can be broken down into two or more constituents. Human beings are only able to use a word which they find new if they learn the new word together with objects or concepts it denotes. On the other hand, when new coinages are met, like *shutup-ness*, *talkathon* etc, our reactions to them may not be readily explained. We may find them acceptable and in line with our own feelings about how words should be built up, or they may seem in some way contrary to the rules.

According to Crystal (2002), English vocabulary has a “remarkable range, flexibility, and adaptability”. Owing to the periods of contact with foreign languages and its readiness to coin new words out of old elements, English seems to have far more words in its core vocabulary than other languages. For example, alongside kingly (from Anglo-Saxon) we find royal (from French) and regal (from Latin).

## **2.1 On word Formation in English**

Bauer (1983: 1) claims that there is no single “theory of word *formation*”.

“Interest in word-formation has probably always gone hand-in-hand with interest in language in general, and there are scattered comments and works on the subject of word-formation from the time of Panini, who provided a detailed description of Sanskrit word-formation, right up to the present day.”

Questions that still cause difficulties have been asked by scholars for centuries. Furthermore, word formation has been considered by various linguists from different points of view: from a phonological point of view (Halle, 1973); from a syntactic point of view (Jackendoff, 1975); and from a semantic point of view (Leech, 1974; Lyons, 1977).

According to Bauer, there appears to be no doctrine on the subject which attracts many new researchers precisely because of the nature of word formation.

Bauer (1983: 30) gives the following definition of the term *word formation*:

“Word formation can be defined as the production of complex forms. ‘Complex’ is used by other scholars to mean ‘produced by derivation’. Thus, word formation can be divided, in the first instance, into derivation and compounding (although there are other categories which do not fit neatly under either of these headings.”

Therefore, word formation can be understood to mean a collection of different processes (compounding, affixation, back-formation, blending, and so on) about which, as a whole, it is slightly difficult to make a general statement.

Obviously, any discussion of word formation makes two assumptions: that there are such things as words, and that at least some of them are formed. Bauer (1983) argues that the definition of the word has been, for a long time, a major problem for linguistic theory because, however the term “word” is defined, there are some items in some languages which speakers of those languages call ‘words’ but which are not covered by the definition.

Adams (1973: 7) agrees that there is a failure of general linguists to provide a consistent definition of the word across languages, which has shown that it can only be defined with respect to a particular language.

Both Adams (1973: 7) and Bauer (1983: 8) agree that, regardless of the difficulties the notion *word* may carry, it has a certain psychological validity, and that there are good reasons for operating with such a notion. To illustrate this, they claim that speakers of a language, even illiterate speakers, (must) have a feeling for what is, or is not, a word. Sapir (1921: 34) reports that speakers of languages that have never been written have no difficulty whatsoever in determining words, although they have some difficulty in learning to break up a word into its constituent sounds. Repeating the sentences, “word for word”, therefore, is not a problem for such speakers. As an exception to this rule, there are words in English that divide English speakers into those who claim that they should write *all right* as opposed to those who opt for *alright*, but in general terms this holds true.

Bauer concludes that, obviously, the rules that must be established for forming words depend on what counts as a word in any given language. There are words that are formed by rules of syntax, whereas formation of words may be considered as being explained not by syntactic rules but by rules that depend on syntactic factors. ‘Word-formation’ is a traditional label, and one which is useful, but it does not generally cover all possible ways of forming everything that can be called a ‘word’.

## **2.2 Lexicalisation**

There are several stages a lexeme goes through, ranging from the so-called nonce formation, through institutionalisation to, finally, lexicalisation. On its path, a lexeme may start as a new complex word-form designed by a speaker simply to meet some immediate need, the next stage emerging when the nonce formation starts to be accepted by other speakers as a known lexical item. Quite typical of this stage, Bauer argues (1983: 48), is

“...that the potential ambiguity is ignored, and only some of the possible meanings of the form are used (sometimes only one). Thus, for example, there is nothing in the form *telephone* box to prevent it from meaning a box shaped like a telephone, a box which is located at/by a telephone, a box which functions as a telephone, and so on.”

As it appears, it is only because the item is familiar that the speaker-listener knows that it is synonymous with *telephone kiosk*, in the usual meaning of *telephone kiosk* (institutionalisation).

Bauer (1983: 48) concludes that the lexeme enters its final stage when it takes on a form which it could not have if it had arisen by the application of productive rules. This is the stage when the lexeme is lexicalised.

## ***2.4 Morphology and the Lexicon***

Both morphology and the lexicon are considered equally important ways of providing words in a language. Aronoff and Anshen (1998) give arguments to substantiate this claim:

“In fact, the two systems, i.e. morphology and the lexicon, do have a great a great deal to do with one another, for two simple reasons...they both provide words, and...they are independent...”

The morphology of a language, they argue, as part of grammar, trades in structural matters, dealing primarily with the internal make-up of the potential complex words of a language. The lexicon, on the other hand, of any language, is a simple listing of items that exist in that language – the items that a speaker must know, as they are arbitrary signs, hence, unpredictable in a particular way.

According to Aronoff and Anshen (1998), there is an apparent rivalry between the two, as with any two entities sharing a task. The rivalry obviously plays an important role within the larger system of the language as it gives added value to the total number of words in a language, regardless of the fact that words may be provided by the morphological rules, including the morphologically well-formed complex potential words, or merely as words listed within the lexicon of a language by being simply stored into an individual’s mental lexicon. According to Aronoff and Anshen, the interaction between morphology, being the system that creates regular words, and the lexicon, the system that stores irregular words, can only be observed where both are capable of being invoked.

A good illustration of the interaction includes a simple case of the plural noun in English. It is generally known that some plural forms come from the lexicon, whereas some originate from the morphology. In case of the former, plurals are said to be

originating from the lexicon simply on account on their irregularity, and stored accordingly into the individual's mental lexicon, such as *men* or *mice*. The latter, on the other hand, encompasses plural forms coming from the morphology in case they are regular, like *cups*. A question arises here – how do speakers know not to say *mans* but *men*? Why is it the case that if a word has an irregular plural stored in the lexicon, there is no regular plural, the one coming from the morphology? There must be a blocking power that prevents the morphology from producing a regular plural just in case an irregular plural for the same word is in the lexicon already. The only possible conclusion we can arrive at here is that both lexicon and morphology appear to interact in making sure that only one form will be used.

Aronoff and Anshen (1998) explain this phenomenon by the centuries-long linguistic tradition of languages having the tendency of avoiding synonyms. They argue that most speakers will use a word from their lexicon (*men*) rather than resort to morphological rules of producing a new word with the same meaning – the phenomenon called *blocking*, i.e. “the non-occurrence of one form due to the simple existence of another” (Aronoff 1976: 43).

In conclusion, morphology is clearly distinct from the lexicon, and depends on it, bearing in mind that the production of morphologically complex words is done largely by applying morphological rules to normally lexical entries which are stored in a speaker's mental lexicon.

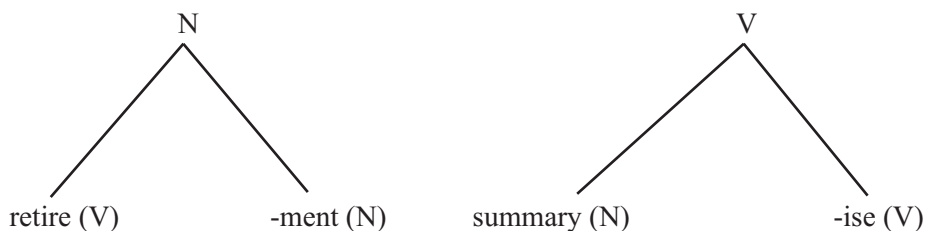
### **3. DISCUSSION AND ANALYSIS: DERIVATION AND COMPOUNDING**

#### ***3.1 Derivation***

Hudson (2000: 255) defines derivation as the creation of new words by the use of derivational affixes. Unlike inflectional affixes, which there are typically said to be eight in English (all are suffixes), and have very customary use, the use of derivational affixes is not obligatory. They tend to form words the meaning of which is somewhat narrower than that of their parts. A good illustration in English are result nouns, such as those ending in *-ment*, e.g. *government*, the result of governing.

An important aspect to look at when discussing derivational affixing is certainly heads and modifiers. According to Hudson (2000: 256), “...some derivational affixes seem to bring about changes of part of speech...”. One understanding that can be

given here is that derivational affixes are the heads of their words. However, prefixes, which are also derivational affixes, do not function as heads, and are in fact hardly ever word-class changing. It should be recalled that in a noun phrase, the head is a noun, and in a verb phrase the head is the verb – the head is the essential element of a phrase, towards which other elements are modifiers. Having said that, *retirement* would have the structure at the left, and *summarise* would have the structure at the right, below.



Here, *-ment* is clearly a sort of N, which obligatorily combines with verbs, and as the head of its phrase naturally yields a noun. If *-ise* is a verb, as head of its construction with a noun the result is a verb.

Some English examples include (Hudson: 256):

- a. ***geosynchronous*** (geo + syn + chron + ous) ‘in time with the orbit of the earth’ (of communications satellites which stay over one point on the surface of the earth). *Geo-* ‘earth’, *-syn-* ‘alike’, *-chron-* ‘time’, *-ous* ‘suffix forming adjectives from nouns’. Like typical derivations of new words in the technical fields, all the morphemes have Greek or Latin origins.
- b. ***Cabledom*** (*cable* + *dom*) ‘the cable television business and its sphere of influence’. The suffix *-dom* is quite rare, probably most encountered in the word kingdom.
- c. ***Energiser*** (*energ(y)* + *is* + *er*) ‘which causes to have energy’. The suffix *-ise* is added to nouns to form verbs with the meaning ‘cause to have the quality of the noun’. *-Er* is added to verbs to make noun instruments or agents, causers of the verb, as in *walker* ‘instrument to help walking’.

Hudson (2000: 257) concludes that derivation is perhaps the most common way to express new meanings in English, especially when it comes to technical fields such as computer science, medicine, and the physical and natural sciences, where new

discoveries, new technology, and new ways of thinking are regular occurrences which necessitate a ready means of expression.

According to Beard (1998), unlike inflectional morphology, derivational morphology or word formation is so named because it usually results in the derivation of a new word with new meaning. They argue that derivation is purely lexical, as opposed to inflection, which, on the other hand, is considered to be relevant only to syntax. Therefore, the output of a derivation rule is inevitably a new word, to be incorporated into the lexicon. Lexemes, or lexical entries, upon which derivational rules operate, are considered to comprise three types of features: a phonological matrix, a grammatical subcategorisation frame, and a semantic interpretation, all of which mutually imply each other.

In addition to suffixation, prefixation in English offers a vast number of options for derivation of new words. According to Bauer, most prefixes in English are class-maintaining. However, the majority of prefixes can be added to bases of more than one form class. Some examples (Bauer, 1983: pp. 217-9) are:

- a. **arch-**, used exclusively with a noun base, added particularly to human nouns to denote an extreme or pre-eminent person, e.g. *archmonetarist*
- b. **de-**, used exclusively with a verb base, not so frequent partly due to its being in competition with *dis-* and *un-*, e.g. *decapacitate*, *deboost*
- c. **fore-**, added to nouns and verbs, e.g. *foretell*, *foreground*, *forelock*
- d. **in-**, added to nouns and adjectives, has a number of forms depending on the initial segment of the base, e.g. *inoperable*, *improbable*, *illegal*

Of the class-changing prefixes, it may be worth mentioning here the following ones:

- a. **a-**, forms adjectives from forms mainly ambiguous between nouns and verbs, e.g. *asleep*, *aglaze*
- b. **be-**, forms transitive verbs from adjectives, verbs or nouns, e.g. *becalm*, *befriend*, *bewitch*
- c. **en-**, forms transitive verbs mainly from nouns, e.g. *enslave*, *entomb*

As it has been said, in its broadest sense, derivation refers to any process which results in the creation of a new word. Beard argues that backformation could also be discussed here, given that some types of derivation do not fit into derivational lexical paradigms holding for many other bases, like the following:



re-laser, out-laser, over-laser, ...  
laser-er, → laser-er-s, laser-er-'s  
LASER      laser-ing → laser-ing-s, laser-ing-'s  
(un)laser-able → (un)laser-abil-ity

They argue that the result of misanalysis of words when a phonological sequence identical with that of an affix is misperceived as that particular affix is that a previously non-existent underlying base is extracted and stored in the lexicon via backformation (see section 3.7).

### **3.2 Zero-Derivation**

Zero-derivation is also known as 'functional shift' or 'conversion' (Hudson: 2000: 257). This is the principle of using a word as another part of speech, without any affix or change of form at all. Nouns can thus become verbs, and vice versa. The phenomenon is becoming quite common in English. Verb-to-noun and noun-to-verb cases are common; others are seldom. All zero-derivation has recently been analysed as involving metonymic shifts. Some Hudson's examples include:

- a. **swim**, basically a verb (as in 'Can you swim?'), may be used as a noun, as in 'have a swim'
- b. **fun**, essentially a noun (as in 'Are we having fun yet?'), may be used as adjective, as in 'That would be a fun thing to do.'
- c. **trail**, basically a noun (as in 'a trail through the woods'), may be used as a verb in sports-talk, as in 'The Pistons trailed until the second period.'
- d. **laugh**, basically a verb (as in 'They seem to laugh a lot. '), may also be used as a noun, as in 'We had such a laugh then.'
- e. **ring**, essentially a verb (as in 'The phone's been ringing for minute snow. '), may also be used as a noun, as in 'I'll give you a ring later today, ok?'

### **3.3 Compounding**

In simple terms, compounding is combining two or more words as a word, with the meaning of the resulting word not predictable as the simple combination of the meanings of the two combined words.

### 3.3 Some Hudson's examples include:

- a. **greenhouse** (*green* + *house*, adjective (or noun) + noun) 'a building for nurturing plants' (noun)
- b. **soccer-mom** (*soccer* + *mom*, noun + noun) 'a mother whose time is occupied with children who play soccer' (the American Dialect Society's Word of the Year for 1996)
- c. **dry-clean** or *dryclean* (*dry* + *clean*, adjective + verb) 'clean by a dry process' (verb)

As shown above, examples a. and b. clearly illustrate the unpredictability of the meanings of the resulting words, given that a *greenhouse* is not green, and *soccer-moms* do not play soccer. Hudson (2000: 258) concludes that "Compounds really yield new meanings, even though the words they are made of are old and familiar."

The lack of predictability, Fabb argues, arises from two characteristics of compounds (1998: Chapter 3):

- (a) compounds are subject to processes of semantic drift, which can include metonymy, so that a *redhead* is a person who has red hair;
- b) there are many possible semantic relations between the parts in a compound, as between the parts in a sentence, but unlike a sentence, in a compound, case, prepositions and structural position are not available to clarify the semantic relation".

There are endocentric and exocentric compounds. The former category encompasses those compounds that have a head, which, in turn, has similar characteristics to the head of a phrase thus representing the core meaning of the constituent. It is also of the same word class. For example, in *head-chef*, *chef* is the head, while a *head-chef* is a kind of chef, and both words are nouns.

Compounds with no head are called exocentric compounds. A clear line between the two types of compounds is not always present, as it is subject to interpretation, for example, *greenhouse*, whether we think it is endo- or exocentric depends on whether we think it is a kind of house. English has endocentric compounds that tend to have heads systematically on the right.

The third kind of compound, where there is reason to think of both words as equally sharing head-like features, as in *student-prince* (Fabb) is called co-ordinate or appositional compounds.

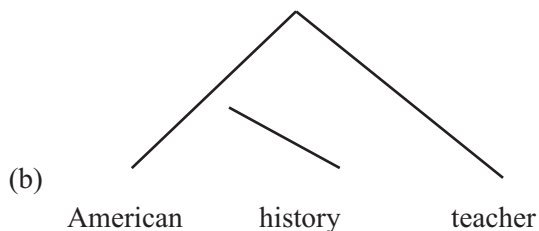
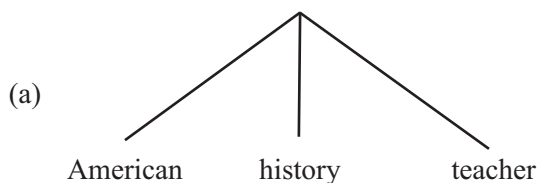
There are also other types of compounds found, such as synthetic (verbal) compounds. In these, particular formal characteristics co-occur with particular restrictions on interpretation. Fabb (1998) argues that the formal characteristic is that a synthetic compound has as its head a derived word consisting of a verb plus one of a set of affixes. Therefore, the following may be formally characterised as synthetic compounds (Fabb):

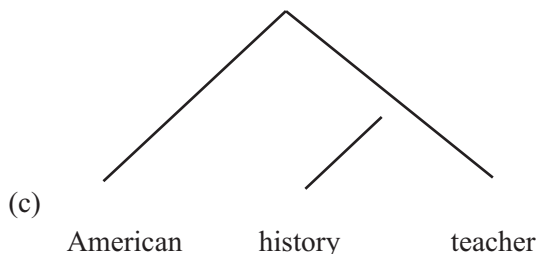
- expert-test-ed
- checker-play-ing (as an adjective: a checker-playing king)
- window-clean-ing (as a noun)
- meat-eat-er

Some English examples of the so-called repetition compounds include words such as *higgledy-piggledy* and *hotchpotch*, where there is reduplication of whole words.

Where compounds are composed of three (or more words), the compound can sometimes be interpreted by breaking it down into subconstituents. According to Fabb (1998), this is particularly true, for example, of *chicken-leg-dinner*, which is interpreted by taking *chicken-leg* as a subcompound within the larger compound. On the other hand, there may be ambiguity in some cases, for example, American history teacher (a teacher of American history or a history teacher who is American).

This raises the question of whether such compounds might have a subconstituent structure like a phrase [(b) or (c) below], rather than the flat structure (a):





Many languages are said to disfavour compounding as a means of deriving new words. German for example, is a language that exploits compounding more than English, with examples like (Hudson):

- a. ***Erdkarte*** ‘map of the earth’ (*Erd* ‘earth’ + *Karte* ‘map’)
- b. ***Lastkraftwagen*** ‘truck’ (*Last* ‘load’ + *Kraft* ‘power’ + *Wagen* ‘vehicle’)
- c. ***Bundesausbildungsfoerderungsgesetz*** ‘National Law for the Advancement of Education’ (*Bundes* ‘national’, *Ausbildung* ‘education’, *Foerderung* ‘advancement’, *Gesetz* ‘law’)

An important aspect to look at in English compounds is stress. Some compounds are written as a single word, with no space between the combining words (*football*, *dryclean*); others have a hyphen (*time-consuming*, *drip-dry*), and some are written with a space between (*rugby ball*, *spot clean*). The main (primary) stress is usually placed on the left-hand word and secondary stress on the right-hand word.

Fabb (1998) argues that compounds are subject to both phonological and morphological processes, “which may be specific to compounds or may be shared with other structures”. The words in a compound are said to retain a meaning similar to their meaning as isolated words, but with certain restrictions. For example, as quoted in Fabb (Downing: 1977), not every man who takes out the garbage is a *garbage man*.

#### 4. CONCLUSION

The preceding sections of this paper provide an outline of particular available means for production of new meanings in established forms of words in the English language. In order to present two major types of production of complex forms (derivation and compounding), it was prerequisite to provide some definitions and

generalisations. In the focus of the theoretical part were word formation and related topics as viewed by different authors. Following are the conclusions that can be drawn:

Concerning the theoretical part of the paper, generally speaking, word formation is a largely explored area. Many authors agree on the basic principles that motivate and govern the process of word formation.

However, on the particular processes of word formation outlined in the paper, it can be said that there are areas that are relatively productive (such as compounding) given all the constraints the process of an established form of a word obtaining a new meaning can pose. Not only is each particular type discussed in this paper present in casual speech, rather it is employed quite frequently.

Overall, it can be concluded that there is definitely reason for studying language and its lexis, as Chomsky puts it (1976: 4), “it is tempting to regard language, in the traditional phrase, as a ‘mirror of mind’”, simply because language with its lexis is a never-ending process, governed by principles that are universal by biological necessity.

The variety of mechanisms that English offers for the production of new words, which have been presented in the paper, as well as the numerous corresponding examples, have shown what qualifies English as a language medium which is universally intelligible. English thus continues to occupy the position of the world’s first language.

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## TVORBA RIJEČI U ENGLESKOM JEZIKU: IZVEDENICE I SLOŽENICE

### Sažetak:

U okviru tvorbe riječi u engleskom jeziku, u ovom radu se daje pregled određenih mogućnosti za stvaranje novih značenja već postojećih oblika riječi. Preciznije, u radu se predstavljaju dva glavna tipa proizvodnje složenih oblika (izvedenice i složenice), uz prateće definicije i opća razmatranja potkrijepljena relevantnim primjerima koji su dalje u radu analizirani i diskutirani.

**Ključne riječi:** tvorba riječi u engleskom jeziku, izvedenice, složenice

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