

THE WAYS AND MODELS OF NUMERALS-BASED WORD-FORMATION IN MODERN ENGLISH

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This paper is devoted to the current problem of ways of word formation in modern English based on the material of new formations using numerals. The study of this problem is important not only in terms of the word-forming capabilities of numerals in English, but also in terms of determining their structural and semantic features. This paper offers detailed consideration of the structural differences of words formed using numerals, in particular, specific methods, schemes and models of numerals-based word-formation, as well as their semantic features. When studying the formation of various parts of speech using numerals, we identified the following parts of speech: nouns, adjectives, adverbs, pronouns and verbs. And this paper, in particular, is focusing more specifically on nouns formed using numerals in modern English, as they are the most frequent and common. The system of new words formation using numerals was considered in the schemes and models of such words depending on the way of their formation. The content of this paper is built strictly on the principle of consistency in the description of each way of nouns word-formation based on numerals: scheme → model → semantic classes of nouns. In modern English, as in many languages of other types, the problem of classifying the ways and techniques of word-formation has not yet been solved. This paper considers one of the most productive ways of forming the latter, based on cardinal and ordinal numerals.

Keywords: numerals, word-formation, way, method, model, classification, nouns, affixation, suffix, structure, semantics

In the present-day linguistics, a various number of word-formation ways is distinguished even within the individual languages, which are designated by different terms. And commonly, some word-formation ways are specified in one classification and are missing in another.

It appears that classification of word-formation ways in modern English is problematic due to the fact that the linguists are using different criteria and principles to solve it, and because this problem was not the object of independent research.

The most complete classification of word-formation ways, which we mainly follow, is found in the works by N.M. Shansky, dedicated to Russian word-formation [1]. He distinguishes four main ways of word-formation: lexical-semantic, morphological-syntactic, lexical-syntactic and morphological. In the latter, he distinguishes such independent ways as: affixation, addition, non-affixal way, abbreviation and back-formation. One may not agree with certain provisions of classification, but in general it is logical, consistent and quite complete.

The lexical-syntactic and morphological ways of forming new words are intrinsic to the numerals-based word-formation in modern English, as well as using other parts of speech. The most productive is the morphological way of word-formation, especially compounding and suffixation. Reduplication, conversion and abbreviation are less productive.

In the framework of this paper, the affixal way of nouns word-formation based on numerals in modern English will be considered.

Affixation, as a derivation method, when applied to the words with the numeral roots, is represented mainly by the suffixal way of word-formation.

Cases of prefixation and suffixal-prefixal way of word-formation method are quite rare.

The adjectives from ordinal numerals are formed by prefixation way according to the scheme **Pref. + Num.o → Adj.**

“Her activities in the piece movement spanned many years, from **pre-second** world war fight against fascism and throughout World war two.”

The Socialist February 9, 1978, p. 3.

The nouns from cardinal numerals are formed by suffixal-prefixal way according to the scheme: **Pref. + Num.c + Suff. → Noun.** This scheme is represented by only one non-productive model: **multy + Num.c + – air → Noun.** The nouns of “multimillionaire” type are formed according to this model.

“Is he a **multimillionaire**?” Yes, said Harvey. He is what you call a **multimillionaire**.”

R. Kipling, “Sea stories”, p.13.

Suffixation in the word-formation based on numerals is the most productive for the nouns formation.

The nouns derived from numerals are formed by the addition of word-building affixes of nouns to the numeral stems, mainly suffixes, according to the following schemes:

1. **Num.c + Suff. → Noun**

2. **Num.o + Suff. → Noun**

Suffixes not only create a new word, but also formulate the corresponding part of speech, giving the word a new structural meaning, namely the meaning of substantivization.

The nouns from cardinal numerals are formed according to the model **Num.c + Suff** → **Noun**. The suffix in this scheme can be represented by the following variants: **-er / -or, -ary, -aire, -ness, -fold, -ling, -ain, -s**.

1a. The nouns with the following meaning are formed from cardinal numerals using the suffix **-er**:

a) a person of a certain age, called the word-producing stem (**fifteeners and sixteeners**, colloq. “young persons of fifteen and sixteen years old, **forty-fiver**, colloq. “forty-five-year-old man);

b) banknotes with a denomination of as much basic monetary units as are denominated by word-forming stem (numeral) (**fiver**, colloq. “five dollar banknote, five pound banknote”).

The semantics of some nouns derived from numerals is revealed in the etymological analysis of these words, for example, the word **fifty-niner** “gold digger” was formed during the gold rush in California in 1849; the word **hundreder**, hist., means: a) “district bailiff”, b) “resident of the district, who is obliged to perform the functions of jury member” was formed from the meaning of the stem of noun **hundred**, historical, which designated the district of county with its own court (in England). The noun **hundred** can take the low-productive and limited suffix **-or (hundredor)** and even the suffix **-ary**, although the latter is involved mainly in the formation of adjectives only from the stems of nouns, with the same meaning as the word **hundreder**: **hundredor = hundredor = hundredary**.

1b. The nouns from the stems of cardinal numerals, using the suffix **-aire**, are formed, which denote the persons having such a sum of money, which is denominated by word-forming stem. For example, the word **millionaire** means “a person (man) having a million pounds sterling.”

“It’s so strong that sometimes I do have a tiny effect on the haughty **ten-thousandaires**.”
S. Lewis, “Main street”, p. 66.

This suffix does not form nouns from the stems of ordinal numerals.

1c. The nouns from cardinal numerals, using the suffix **-ness**, are formed, which have the abstract meaning of “state”. Thus, the word **oneness** conveys such concepts as “singleness, exclusiveness, loneliness, commonness, sameness, oneness, single-mindedness”, etc.

“He did not know how to get understanding or lovingness or **oneness** or any of these things could not even imagine what they were.”

J.B. Priestley, “Angel Pavement”, p. 15.

The suffix **-ness**, as well as the suffix **-er**, is one of the most productive suffixes formed from nouns.

1d. The suffix **-fold** usually forms adjectives and adverbs from the stems of numerals, but it can also form the nouns of **twofold** type “two-story houses located at a short distance from each other.”

1e. The suffix **-ling** was formed from the word **ling** with the meaning – a) common heather”, b) “reed”, c) zool. “barracuda”, which is part of the system of full-valued words of the English language, which does not have its material meaning or real value, but only gives the derivative word some additional generalized meaning. (1) In combination with the stem of ordinal numeral, it forms a noun denoting a person or object that has the characteristic features of a group, the quantitative composition of which is denominated by the word-forming stem: **furling** – a) “quadruplet”, b) “quadruple double (in crystallization)”, as well as using this suffix, the nouns are formed from the ordinal numbers such as **firstling** «firstborn” according to the model: **Num.c + -ling** → **Noun**.

1f. Using the suffix **-ain** from the stems of cardinal numerals, the nouns with the same semantics are formed as using the suffix **-ling**: **sixain**, verse. “six-line stanza.”

It is interesting to note that along with the conversion of nouns into the category of suffixes, the reverse process is also observed, when the suffix of the numeral becomes a word-forming stem for derived nouns (denominatives). Thus, from the stem **-teen**, using the suffix **-s**, a full-noun “**teens**” was formed with the meaning: “teenage age from 13 to 19 years”.

“According to neighborhood legend when the younger Radley boy was in his **teens** he became acquainted with some of the Cunningham’s from old Sarum.”

Harper Lee, “To Kill a Mockingbird”, p. 21.

The same stem is found in the composition of compound-derivative noun **teenager** with the meaning: “teenager, boy or girl aged from 13 to 19 years.”

Model **Num.c + Suff. + Suff.** → **Noun** is represented by one variant: **Num.c + fold + ness** → **Noun (twofoldness** “doubleness, twoness”).

The scheme **Num.o + Suff.** → **Noun** is found in two models of ordinal number stems formed nouns.

1) **Num.o + -er** → **Noun**

According to this model, using the suffix **-er**, such words as **secondor** “the one who supports the resolution, candidature, etc.” are formed.

Using the suffix **-s**, the nouns are formed from cardinal and ordinal numerals according to two models:

a) **Num.c** + **-s** → **Noun** and b) **Num.o** + **-s** → **Noun**

According to model (a), the nouns denoting the following are formed:

1) Monetary units

(**fives** “five-rate shares”, **threes** “three-rate securities”).

2) Sports terms

(**fours** “professional sports competitions, four races”).

3) Items

(**twelves** “books in the format of the twelfth part of a sheet or page of such books”, **sixes** “candles that compose six pieces per pound”).

4) Numbers

(**thirties** “numbers from thirty to thirty nine”).

According to model (b), the nouns are formed with the meanings:

a) items

(**thirds** “goods of third order and low quality”, “third class (of any transport)”, **seconds** “goods of second order”, “coarse flour”, **firsts** “goods of first order and superior quality”, “best lumpy ore”, “concentrate”).

We find it necessary to note the peculiar features of the way of numerals formed nouns using the element **-s**:

six (num.) “six” **sixes** (noun) “candles that compose six pieces per pound, six interest-bearing securities.”

In this case, the element **-s** is not the end of the plural of nouns (purely grammatical morpheme), but the word formative suffix and lexical-grammatical morpheme, because it converts a word from the numerals category into the nouns category. This changes not only the structural meaning of the word as part of speech, but also its specific lexical meaning:

eleven (num.) “eleven” → **elevens** (noun) “light breakfast at eleven o’clock” (there is a phonetic variant with doubled **-s** (**elevenses**)).

But the element **-s** is not always a lexical-grammatical morpheme in the composition of noun derived from the numeral. In cases when there is a numeral formed noun using the conversion way, then from it, in turn, a new noun can be formed with a completely different lexical meaning using the element **-s**:

five (num.) “five” → **five** (noun) “five pound note” → **fives** (noun) “five fingers, one’s hand, five rate shares”.

first (num.) “first” → **first** (noun) “highest grade in English universities” → **firsts** (noun) “goods of first order and superior quality, best lumpy ore, concentrate”.

Also compare the following examples:

four (num.) “four” → **four** (noun) “grade four, four-oared boat” → **fours** (noun) “professional sports competitions, four races, four-rate shares or securities”.

second (num.) “second” → **second** (noun) “second-in-command, second grade, second-place team” → **seconds** (noun) “goods of second order, coarse flour”.

In these examples, the element **-s** is a lexical morpheme equal in function to the prefix, because it changes the word lexical meaning only, leaving it in the nouns category. Unfortunately, the function of the element **-s** in the word-formation from numerals in the English language has not yet been described or even noted.

Within the morphological way of word-formation, it is necessary to make distinction between the words formed in compound-suffixal way, where the addition of complete stems is accompanied by simultaneous addition of the suffix **-er** to form complex-derivative (according to the terminology by N.M. Shansky – compound-suffixal) nouns using numerals.

The addition of this nominal affix to the stems of compound nouns with numerals, wherein a complex distinctive feature of persons, objects or phenomena is embedded, leads to objectification of the meaning of the compound word as a whole, and the whole becomes the name of the carrier of this distinctive feature, for example:

first-nighter “frequenter, regular visitor of theater premieres”, **two-seater** “two-seat car or plane”, **two-pounder** “fish (usually trout) weighing two pounds”, **six-bedder** “bed with seats for six”, etc. The semantics of compound derivative nouns with numerals is quite diversified.

In modern English, the compound derivative nouns are formed using numerals in compound suffixal way according to the following four main schemes:

I. Num. + Noun + -er → **Noun**

(two-seater “two-seat car”)

II. Num. + verb + -er → **Noun**

(four-flusher, colloq. “cheater, trickster”)

III. Num. + adj + -er → **Noun**

(one-aloner “lonely person, loner”)

IV. Num.o + -s + Noun → **Noun**

(thirdsman “third party, intermediary”)

The major part of numerals-based nouns is formed in compound-suffixal way according to the following scheme:

Num. + Noun + -er → **Noun** two models are distinguished within this scheme:

a) **Num.c + Noun + -er** → **Noun**; and
b) **Num.o + Noun + -er** → **Noun**

Frequency and productive model (a) forms compound derivative nouns denoting:

1) Means of transportation

(**three-wheeler** “three-wheel bicycle”, **two-seater** “two-seat car”, **four-seater** “four-seat car”), **four-wheeler**, colloq. “horse carriage”, **two-decker** “double-deck ship, double-deck bus”, **three-decker** “three-deck ship”, **three-master** “three-mast ship”.

2) Fire weapons and fire guns

(**four-pounder**, hist.: “four-pound bore cannon”, **six-pounder** “57 mm cannon, six-pound ball”, **sixty-pounder** “27 mm cannon”, **one-pounder** “one-pound bullet firing gun”).

3) Items the meaning of which is denominated in the last noun

(**one-actor** “one-act play”, **one-suiter** “small suitcase that can fit one costume and other minor items”, **three-plier** “three-bend rivet”, **one-sucker**, “crop of tobacco cultivated in western Kentucky in USA”, **four-poster** “four-post bed”, **three-volumer** “three-volume book”, **ten-pounder** “ten pound item, large-sized item”).

4) Monetary units

(**ten-center** “dime coin”)

5) People

(**hundred-percenter** 1. “all American, hurrah, boys! patriot”, 2. “man who is ready to stand to the end”, 3. “regular guy/ capital boy, great girl”, **six-footer**, colloq. “six-foot-tall man”).

6) Serve as military terms

(**three-stripper** “US navy commander”).

“Tom, I wouldn’t ever get into all this trouble if it hadn’t a fen for that money; now you just take my sheer of it along yours, and give me a **ten-center** sometimes.” M. Twain “The adventure of Tom Sawyer” p. 204.

“Oh, a **six-pounder** or two in case of emergency was the intrepidly indifferent reply, with a small stock of muskets, sealings, pears, and cutlasses, you know.”

H. Melville “Benito Cereno” p. 194.

“After half an hour’s waiting Dick almost weeping with rage and wrath, caught a passer – by who introduced him to a friendly policeman, who led him to a **four-wheeler** opposite the Albert Hall.”

R. Kipling “The Light That Failed” p. 208.

It should be noted that ambiguity is a characteristic of the cardinal numerals-based nouns using compound suffixal way, which makes it difficult to assign some of them to any particular semantic category. For example, the noun **ten-pounder** has 4 meanings: 1. “piece with a weight of ten pounds”, 2. “good at the cost of ten pounds”, 3. “ten pound note”, 4. “voter

with the income of ten pounds per annum”; the noun **three-decker** has 5 meanings: 1. “three-deck vessel”, 2. figurative sense “trilogy, three-volume novel”, 3. colloq. “three-layer sandwich”, 4. “man of giant strength”, 5. “thing of large size/ bulge”; the noun **hundred-percenter** has 3 meanings: 1. “all American, hurrah, boys! patriot”, 2. “man who is ready to stand to the end”, 3. “regular guy/ capital boy, great girl”; the noun **two-decker** has 2 meanings: 1. “double-deck ship”, 2. “double-deck bus or trolleybus”, etc.

The model **Num.o + Noun + -er** → **Noun** is less productive and frequent as compared to the previous model. According to this model, the nouns are formed using ordinal numerals that designate **people** and **objects** (**first-nighter** “frequent, regular visitor of theater premieres”, **second-rater** “mediocre and ordinary person”, **third-rater** colloq. “thirds”, third-best” (about people)), **fifth-former** “schoolboy of the fifth-class”, **first-grader** “first-year student”, **first-rater** sport “first-class yacht, ship”).

“He felt at that moment as light-hearted as a **fifth-former**.”

A. Murdoch “The Sand Castle” p. 161.

According to the scheme **Num + verb + -er** → **Noun**, compound-suffixal nouns are formed. The numeral serves as the first component, and the verb stem as the second. Two models are distinguished within this scheme: a) **Num.c + verb + -er** → **Noun** and b) **Num.o + verb + -er** → **Noun**. Both models are non-productive.

According to the first model (a), compound-suffixal nouns are formed using cardinal numerals of **four-flusher** type, American slang “cheater, trickster”, **six-shooter**, colloq. “six-chambered revolver, gun.”

“Mrs. Harry Haydock as the young lady from the west who so easily showed the New York **four-flushers** where they got off was a vision of loveliness and with five stage presence” S. Lewis “Main street” p. 229.

According to model (b), compound-suffixal nouns are formed using ordinal numerals of **first-offender** type “a person condemned for the first time.”

And finally, according to the scheme **Num.c + adj scheme. + -er** → **Noun**, the compound-suffixal nouns are formed, wherein the first its component is a cardinal numeral, and the second – adjective. This scheme is non-productive, it formed words like **one-aloner**, colloq. “absolutely lonely person, loner.”

The nouns formed using numerals according to compound-suffixal way are written with a hyphen and, basically, have a dibasic stress.

A.I. Smiritsky [2], when classifying compounds cites the words with a special connective morpheme (**statesman** “public official”, **tradespeople** “people of trade, merchants”) as the first of five types of compounds, however, until now, the formation of new words with connective morpheme **-s** based on numerals has not been noted in linguistic literature.

Compound suffixal nouns with connective morpheme **-s** with the numeral base are formed according to the scheme: **Num.o + -s + Noun → Noun**.

Nouns formed according to this scheme can be variants (**second-hand** = **secondshand** “clock’s second hand”) with other independent lexical units (**thirdsman** “third person, intermediary”). This scheme is non-productive.

Thus, in the modern English, affixation – is one of the most productive ways of nouns word-formation based on numerals. Nouns, which involve the numerals and which are formed by affixation method, are systematically organized in the English language, i.e. these nouns are forming according to certain structural models corresponding to the structural laws of word-formation.

These nouns are distinguished by a variety of structures and fine differentiation of meanings.

The largest number of such nouns is formed using cardinal and ordinal numerals of the first ten.

The nouns with the roots of the numerals basically preserve a semantic link with numerals. The most important feature of nouns with the roots of the numerals is their polysemy.

In the course of the study, it was found that the **-s** element in the numeral-based word-formation system has three functions, and this element can serve as lexical-grammatical morpheme (suffix), lexical (prefix) and connective morpheme (infix).

Word-formation models of English numerals that demonstrate affixal derivation give a complete basis to linguists to single out cardinal and ordinal numerals into particular morphological category of notional words [4].

The findings of study can be used in lexicography and in the classroom, especially when teaching special lexis and vocabulary (military, sports, music, accounting), as well as colloquial and everyday language.

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