

Arts, Linguistics, Literature and Language Research Journal

NEOLOGISMS IN

``*BIO*`` - AND

``*-ÍVORO*``¹

Maria do Céu Caetano

Universidade Nova de Lisboa, Faculty of
Social and Human Sciences, Department of
Linguistics

<https://orcid.org/0000-0002-2237-9184>

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



1. A first version of this text was published in 2021, in ``*Por Palavras e Gestos: a Arte da Linguagem*``, vol. IV, pp. 165-174. Curitiba: Editora Artemis, under the title "New formations with "*bio*" and "*-ívoros*" in Portuguese"

Abstract: The problematic of the word formation process that involves the junction of neoclassical elements is not recent and, among others, Darmesteter (1877), Marchand (1969) and Bauer (1983), had already recognized that it will be a special domain, to be studied in more depth, these authors seeking to delimit the status of the neoclassical elements that occur in certain formations and, consequently, avoid the profusion of designations, either those of such elements or those of the process in which they intervene.

In recent years, there are frequent new words in the current vocabulary in which elements from Greek and Latin occur, a formation process that has raised much discussion, insofar as for some it will be a type of compounding and, for others, derivation. The former point out that there are no significant differences between this process and vernacular compounding, while the latter claim that some of these elements behave similarly to prefixes and suffixes.

Starting from units in which it occurs ``*bio-*`` (``*biociência*`` and ``*biodegradável*``, ...) and ``*-ívoro*`` (``*alfacívoro*`` and ``*energívoro*``, ...), one of the aspects that will be explored with regard to neoclassical elements is related to the fact that in Latin and Greek they are lexemes, later ceasing to have autonomy and starting to occur only together with elements of the same type, while in the neology of common language some of them function (exclusively?) either as prefixes or as suffixes. Thus, it will be argued that ``*bio-*``, element that in the new formations occurs exclusively in the initial position and is welded to the words, and ``*-ívoro*``, which is welded to the right of a vernacular stem, are currently in no way different from the affixes of Portuguese.

Keywords: morphology, word formation, compounding, derivation, neoclassical elements

INTRODUCTION

The units in which neoclassical elements occur have been the subject of wide consideration and, even today, any work of relevance in morphology does not fail to discuss some problems posed to the demarcation of derivation and compounding by these elements.

In almost all traditional descriptions, compounding is pointed out as being typically a process resulting from the joining of two lexical elements, while derivatives involve at least the joining of an affix to a base, both processes being included in the area of word formation. (see, for example, Cunha & Cintra 1984: 85-117). However, in more recent works, it is sometimes argued that, although they are distinct processes, the differences between derivation and compounding are not that significant, as explained by Booij (2005: 130), for whom "Derivational affixes are pieces of morphological structure, just like the constituents of compounds. (...) compounding and derivational affixation do not differ in accessibility for rules of grammar." Another of the advanced arguments is based on the existence of some affixes and lexemes whose status is not well defined.

The compounds designated by scholars in traditional grammars are described as resulting from the joining of two or more stems from Greek and/or Latin, to form new words, especially words belonging to technical and scientific domains. In fact, the process of forming a new word through neoclassical elements only became common from the 18th to 19th centuries, with the industrial revolution and technical and scientific advances (cf. Marchand 1969: 131).

Without jeopardizing the traditional approach, Bauer (1983) considers the designation of neoclassical compounds to be preferable, insofar as the arrangements and

rearrangements that we make of neoclassical elements in modern languages would not be possible in the original languages. Taking this into account and knowing that neoclassical elements are available for the formation of neologisms in Portuguese (for example: ``energívoro``), it is necessary to try to understand what changes have occurred and what has changed.

DESCRIPTION OF NEOCLASSICAL ELEMENTS

Both the definition of the process in which they participate and the status of neoclassical elements have been widely discussed.², since, individually, not being bearers of a syntactic category, when joining together to form new names, or welding to a base with autonomy, this calls into question the position of Aronoff (1976: 21), author which argues that “A new word is formed by applying a regular rule to a single already existing word. Both the new word and the existing one are members of major lexical categories”. That is, in the traditional perspective, the joining of two or more neoclassical elements does not presuppose the existence of a base belonging to one of the major lexical categories and, according to Aronoff (1976), this process is not contemplated in the Word Formation Rules.³

In the various descriptions, it is pointed out that elements of erudite origin are joined to other elements that have the same etymological, morphological and semantic characteristics, thus being characterized by their lack of syntactic autonomy (in Portuguese and in other modern languages). Therefore, they differ from prefixes and suffixes, which, due to their affixal nature,

cannot be combined with each other. (cf., for example, **antides* or **ismoista*), always occurring either to the left (prefixes) or to the right (suffixes), while the position occupied by neoclassical elements may not be fixed: some of them may appear in the initial or final position (for example ``crono``, in ``cronómetro`` and ``assíncrono``) ; some only in the starting position (for example: ``pseudo`` in ``pseudofobia``) and others only in the final position (for example: ``teca`` in ``filmoteca``). On the other hand, it is known that in typical compounds, at least one of the elements has syntactic autonomy (examples.: ``couve flor, afrobrasileiro``, etc.).

Regarding the origin of suffixes, Marchand ([1960] 1969²: 210) distinguishes two types:

- a) the suffix was once an independent word, but no longer is;
- b) the suffix originated as such, as a result of a process of syncretism. Besides, with regard to prefixes Marchand ([1960] 1969²: 129) considers that “The so-called native prefixes have developed out of independent words” and notes very sharply that, for example, *geo-* is stem in *geography* and prefix in *geostatistics* (Marchand [1960] 1969²: 132).

However, despite recognizing the existence of “semi-suffixes”, that is, elements that “stand midway between full words and suffixes” (Marchand [1960] 1969²: 356), what, a few years later, Martinet (1979) would be called ‘confixes’, no indications are provided as to how this development took place.

In the case of Portuguese, Carvalho (1984: 524) considers that there are several cases of neoclassical compounds that, because they have become generalized in the current language, will not be considered as such by

2. In addition to the elements of Greek and Latin that serve to form “neoclassical compounds”, there are those who also consider others, of the *jazzo* type, such as for example in *jazzófilo* (cf. Timeout-Lisboa 18/07/2017): “Most jazzphiles will know the name of Abdul-Malik from his participation in the historic Live! At the Village Vanguard (1961), by John Coltrane?”, which I will not discuss in this work.

3. In English: WFR (Word-Formation Rules).

the speakers, because, as the author points out regarding elements that always/often occur on the right: “it is very doubtful that for the common speaker (...) they constitute compound words, being more likely to analyze them (intuitively) as words derived by suffixation.”

According to Bauer (2005: 105), “The question with a form like *psychology* or *philosophy* is that it is not really clear that it is a compound. (...) *logy* is not a lexeme of English.” Cases like *logy* will be what Bauer (2005: 107) calls “second-elements of compounds that are becoming affixes”, which occupy a specific (intermediate) place between affixes and lexical bases, “in the morphological continuum”.

Thus, little by little, the idea that erudite/neoclassical compounding is located in a no man’s land, that is, without being able to insert itself in compounding because neither of the two elements is autonomous and cannot be part of derivation, insofar as in this one of the elements is not autonomous and can only occur in a fixed position.⁴

ANALYSIS OF EXAMPLES

To carry out this small study, I compared the definitions and collected some examples in “bio-“ and “-voro” in the Houaiss Electronic Dictionary of the Portuguese Language (2007), with some forms in “bio-“ and in “-ívoro” non-dictionary, taken from the Internet.

i) *bio-*, in the Houaiss dictionary (2007), it is considered an “element of compounding: 1. antepositive [bio-], from Greek: *bíos*, or ‘life’ (for example: ‘*bioaeração*’); 2. interpositive [-*bio-*] (for example: *simbiose*); 3. postpositive [-*bio*] (for example: *micróbio*)”, being part of the macrostructure of the dictionary examples such as (‘*biofagia, biogenia, biopsia*’), along with others, such as ‘*biocombustível, biodiversidade, bioengenharia*’, etc.

As it can be seen, the Houaiss dictionary contemplates the possibility of *bio-* can occur in three different positions.

ii) *-voro*, also in the Houaiss dictionary (2007), is a “compositional element: postpositive, from the Latin verb: *vòro*, as, *ávi*, *tuna*, *áre* ‘devour, swallow, engulf, eat greedily’ (examples: ‘*apívoro, herbívoro, ignívoro; insetívoro, leguminívoro, vermívoro*’), having a reference to ‘*fago*’, from Greek, which can also only occur, according to the same dictionary, in final position.

Although in Houaiss (2007) the form taken is “-*voro*”, the collected examples lead me to consider that the configuration of this element is “-*ívoro*” and not “-*voro*”. To this extent, I assume from the outset that the /i/ initial is not a connecting vowel.

In group 1, some examples are listed in ‘*bio*’ and, in group 2, in ‘-*ívoro*’, taken from the Internet. In group I, in 1.1, *bio*, it occurs in the left position, before a noun or an adjective and, in 1.2, in the right position, after a noun, and, in II, I include in 2.1 nouns in ‘*ívoro*’ formed from names, which can be paraphrased as ‘who eats/drinks a lot - Nb’, and, in 2.2, one finds (in a much smaller number) names in ‘*ívoro*’ that can be paraphrased as ‘who likes Nb a lot’.

GROUP I

1.1 ‘*bioativo, biocosmética, biodança, bioenergético, bioengenharia, bioestatística, bioinformática, biomedicina, biomecânica, bioparque, biopirataria, bioquímica, biorrefinaria, bioressonância, biosnack, biosustentabilidade, biotecnologia*’

1.2 ‘*alimentação bio, bolos bio, formação bio, geração bio, mercearia bio, pastelaria bio supermercado bio*’

4. Cf. Bloomfield’s (1933) famous distinction between free/bound and also lexical/grammatical morpheme.

GROUP II

2.1 ``açaiívoro, alfacívoro, amendoimolívoro, arrozívoro, azeitonívoro, baladego-mívoro, bananívoro, batata fritívoro / batatafritívoro / batata-fritívoro / batatívoro, bife-de-figadívoro, bifeívoro / bifívoro, biscoitívoro, bistequívor, bobótívoro, bolívoro, bolodecrocantívoro, brigadeirívoro, brocolívoro, cachaçívoro, cachorro quentívoro / cachorroquentívoro, cafeívoro / cafetívoro, camaronívoro, caranguejívoro, carne moidívoro, carpacciolívoro, castanhívoro, catchupívoro, cervejívoro, cheeseburguívor, chocolatívoro / chocolívoro, churrasquívor, churrorívoro, cigarrívoro, coca-colívoro / cocacolívoro, comidívoro, costelassadívoro, coxinhívoro, coxívoro, crepívoro, doce de abobrívoro, docetívoro, docívoro, espetinhodefranguívor, fantáivor / fantauvívor, feijoadívoro, feijoívor / feijonívoro, forrolívoro / forrózívoro, franguívor, frutívoro, gelatinívoro, gomademascarívoro, guaraná antarctiquívor, hamburguerívoro / hamburguívor, hot-doguívor, juropinguívor, lasanhívoro, macarronívoro, manguívor, maria-molívoro, massívoro, McDonívoro, melancialívoro, moussedemaracujívoro, nugetsívoro, nuttelívoro, ovomaltívoro, pankekívoro / panquequívor, paodequeijolívoro, pastelívoro, pepsívoro, pipocáivor / pipokívor / pipoquerívoro, pizzaívor / pizzívoro / pizzatívoro, presuntívoro, pudinívoro, queijívoro, red bulívoro, refrigerantívoro, rizotívoro, saladívoro, salgadívoro, sanduíchívoro, sopívoro, sorvetívoro, sorvetetívoro, sorvetívoro, sorveteívor, strogonofívor, strogonofívor, sucodelaranjívoro, sucodemorangocomleiteívor, suquívor, sushívoro, torronívoro, tridentívoro, vata-pátívoro, vinhívoro, vodkaívor``.

2.2 ``charlie brown junívoro, computadorívoro, futebolívoro, guitarrívoro, internetívoro, messengívor, mulherívoro, musikívor, namorívoro, orkutívoro, pas-satemporívoro, preguiçósívor, psyívor, rockívor, youtubívor``.

From the examples, the first aspect to highlight is that none of the cases results from the combination or of “-ívoro” to a Latin/Greek stem.

Secondly, we observed, in group II, that “-ívoro”, both join words (for example, the names ``bifeívor`` and ``sorveteívor``) like stems (cf., for example, *bif-* + -ívoro, *sorvet-* + -ívoro).

In cases where the base is a word ending in a vowel, some readjustments sometimes occur, namely the insertion of a consonant between the base and ``ívoro``, because it starts with a vowel (for example, ``cafetívoro, docetívoro, forrolívoro / forrózívoro, melancialívoro``), which contributes to reinforce the configuration of the element while “-ívoro”, and not “-voro”, as previously indicated. A readjustment different from this one is the denasalization of the final vowel/semivowel of the base, when joining “-ívoro” (for example: ``pudinívoro, macarronívoro``).⁵

Thirdly, the bases selected by *bio* and by “-ívoro” can be both simple and complex (for example, *biodança* and *biorrefinaria*; *alfacívoro* and *batata fritívoro*), whether they are vernacular or foreign bases (for example: *strogonoffívor*), which illustrates well the versatility of these elements.

5. It is not considered that in examples of the *hotdoguívor* type there is any readjustment of the base, since the passage from <-g> to <-gu-> is merely graphic, intended only to maintain the value of [g].

FINAL CONSIDERATIONS

In the literature, grammaticalization is understood as a diachronic process, resulting in a linguistic change in which a lexical structure or item acquires grammatical properties, or in which a grammatical element extends its grammatical properties, acquiring more abstract meanings (cf., for example: Hopper & Traugott 2003: 2). On the other hand, examples of grammatical constructions and words are referred to and discussed which, later, serve to form compounds, later acquiring the status of affixoid, before starting to function as affixes. That is, we will have the so-called “cline of lexicality”⁶ (cf. Hopper and Traugott, 2003), which include some derivational affixes and some compound elements.

In this line, we can therefore consider that within the neoclassical elements there will also be a ‘cline’: those that already behave as affixes (‘-ívoró’) and those that remain closer to the first/second elements of a compound (*bio*), the latter having a meaning that is more similar to that of a lexeme, as can be seen in the examples under analysis.

In fact, the examples that have been analyzed more closely seem to leave us with no great doubts that ‘-ívoró’ behaves in contemporary Portuguese differently from ‘-ívoró’, as it is generally defined in dictionaries.

The element ‘-ívoró’ will have completed / will be in the process of completing a gradual process, similar to what happened much more remotely with the suffixes and prefixes that we have today to form new words, as Said Ali wisely pointed out ([1931] 1964³: 229), when considering that it made no sense to classify prefixing as a particular type of compounding, since if the current prefixes in Portuguese originated from prepositions and adverbs, for

example: items with autonomy, the identical case had been verified before with the suffixes.⁷

Everything indicates that, predictably, what happened/happens with ‘-ívoró’ will happen with other elements of the same type that have a high level of occurrences. When watching the morphologization of ‘-ívoró’, it will make sense to consider it as a suffix in its own right in Portuguese.

Naturally, if the passage (in whole or in part) of a neoclassical element to the affix illustrated here is confirmed, this will have consequences of various kinds, not only in terms of theorizing in morphology, but also in terms of teaching, between others.

In order to leave no doubt about the fact that some neoclassical elements have started to function as affixes, it will be necessary to investigate whether speakers establish distinctions between them and the affixes themselves, with regard to cognitive processing and the mental lexicon, since, as Plag (2002: 286) recalls, speakers master and use morphology “without etymological knowledge”.

6. The term ‘lexicality’ is not the same as ‘lexicalization’, which is used for a different phenomenon (cf. Brinton & Traugott 2005: 18-22).

7. According to the author, the suffix “also comes from an expression that was initially used as an independent word”.

REFERENCES

- ALI, Manuel Said. **Gramática Histórica da Língua Portuguesa**. 3ª ed. São Paulo: Edições Melhoramentos, 1964. 375 p.
- ARONOFF, Mark. **Word-formation in Generative Grammar**. Cambridge (Massachusetts): MIT Press, 1976. 134 p.
- BAUER, Laurie. **English Word-formation**. Cambridge: Cambridge University Press, 1983. 311 p.
- BAUER, Laurie. The Borderline between Derivation and Compounding. In DRESSLER, W.; KASTOVSKY, D.; PFEIFFER, O.; RAINER, F. (eds.) **Morphology and its Demarcation**. Amsterdam: Benjamins, 2005. p. 97-108.
- BLOOMFIELD, Leonard. **Language**. New York: Holt, Rinehart & Winston, 1933. 564 p.
- BOOIJ, Geert. Compounding and Derivation. Evidence for Construction Morphology. In DRESSLER, W.; KASTOVSKY, D.; PFEIFFER, O.; RAINER, F. (eds.) **Morphology and its Demarcation**. Amsterdam: Benjamins, 2005. p. 109-131.
- BRINTON, Lauren J.; TRAUGOTT, Elisabeth Closs. **Lexicalization and Language Change**. Cambridge: Cambridge University Press, 2005. 207 p.
- CAETANO, Maria do Céu. A meio caminho entre a derivação e a composição. **Estudos Linguísticos/Linguistic Studies**, nº 5, p. 131-140, 2010.
- CUNHA, Celso; CINTRA, Luís F. Lindley. **Nova Gramática do Português Contemporâneo**. Lisboa: Edições Sá da Costa, 1984. 734 p.
- DARMESTETER, Arsène. **De la création de mots nouveaux dans la langue française et des lois qui la régissent**. Genève: Slatkine Reprints, 1972. 315 p.
- HOPPER, Paul. J.; TRAUGOTT, Elisabeth Closs. **Grammaticalization**. 2nd ed. Cambridge: Cambridge University Press, 2003. 276 p.
- HOUAISS, Antônio; VILLAR, Mauro de Salles. **Dicionário Houaiss Eletrônico da Língua Portuguesa**. Rio de Janeiro: Instituto Antônio Houaiss de Lexicografia e Banco de Dados da Língua Portuguesa, 2007.
- MARCHAND, Hans. **The categories and types of present-day English word formation**. 2nd ed. München: Beck, 1969. 545 p.
- MARTINET, André. **Grammaire Fonctionnelle du Français**. Paris: Didier, 1979. 276 p.
- PLAG, Ingo. The role of selectional restrictions, phonotactics, and parsing in constraining suffix ordering in English. In BOOIJ, G.; van MARLE, J. (eds.) **Yearbook of morphology 2001**. Dordrecht: Kluwer, 2002. p. 285-314.