**mata- and -opulo: two cases of Greek affixoids**

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**What is an affixoid**

An intermediate category between lexemes and affixes, the so-called ‘affixoids’, has been put forward mainly in German linguistics of the 70’s and 80’s (Leuschner and Wante 2009). However, the status of affixoids is still controversial and all linguists do not agree whether they constitute a distinct category. See, for instance, Schmidt (1987: 98) who, by assuming that the borderline between the linguistic units of root and affix is sometimes blurred, expresses his doubts about the independent existence of this category. Recently, Stevens (2000, 2005, 2010), Kenesei (2006), Kastovsky (2009), Elsen (2011) and Lightfoot (2011), among others, have tried to resuscitate the notion of affixoid by drawing evidence mainly from German, English and Hungarian, but admittedly there is still no principled and consistent account of this category.

With some exceptions, as for instance Kenesei (2006), who tries to define a synchronic status of affixoids, most linguists dealing with these items point out their diachronic significance. All authors consider affixoids as an intermediate category part of a scale below the word level, of progressively less independent constituents, ranging from roots/stems to affixes. Interestingly, Kastovsky (2009: 8, 12) argues that their existence is language dependent since the input to morphological processes

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is not homogeneous but highly depends on the language one deals with; he accepts the existence of intermediate categories below the word level for those languages which have stem-based morphology.

In order to determine the potential properties of affixoids and with the use of evidence mainly drawn from German, Stevens (2000, 2005: 3) proposes the following five criteria, some of which are paraphrased here for clarity reasons, and irrelevant material has been deleted:

a. Affixoids in spoken languages are usually very productive and can be the base for new formations.
b. Affixoids exist alongside a formally identical, and usually free, “parent” morph. This means that there are two linguistic items identical in form, while one is derived from the other.
c. The meaning of an affixoid is more generalized and abstract than that of the formally identical parent. If there is no clear semantic difference between the free and bound forms, then, there is no affixoid.
d. In the original morphological formation which gave birth to an affixoid there has been a shift of meaning in the relationship between the two parts of the word, so that the first or the second component determines the basic meaning.
e. An affixoid must be in competition or in complementary distribution with an affix.

In the following sections, we will see that, although slightly changed, these properties also characterize a subset of Greek data, which could be considered to belong to affixoids. Along the lines of Kastovsky (2009), it will become evident that the existence of affixoids is not language-independent but relies on the morphology of the particular language one deals with.

The data which will serve as evidence for the purposes of this paper will be taken from Greek and its dialectal variety, since Modern Greek dialects are the only systems depicting the intermediate stages of the natural evolution of the Greek language, Standard Modern Greek (hereafter SMG) being a rather constructed system of the 19th c. that has been built on the basis of three dialects, Peloponnesian1, Heptanesian2 and Constantinopolit3, being further enriched with items and features of Ancient Greek.

The data

In this paper, I examine two Greek items: a clearly dialectal one which occupies the left-hand position of morphologically-complex constructions and another which is found at the right-hand position of formations in both Standard Modern Greek and several of its dialects: The first, mata-, a repetition indicator, arises from an already functional element, the Ancient Greek prepositional preverb meta, which expressed the notions of accompaniment, participation, or series of events (Humbert 1972). The second, -opulo, derives from the word puli ‘bird’ (Hatzidakis 1905, Andriotis 1992), itself a borrowed item from Latin, which denotes the meaning of ‘chick, baby, child’. We will see that these items share properties with lexemes, on the one hand, and affixes on the other, but may also have some properties which are different from

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1 This is the dialect of the Peloponnesian peninsula which has been the nucleus of the newly created Greek state in the 19th c. after liberation from the Ottoman rule.
2 The dialect of the Ionian islands of Corfu, Paksi, Antipaksi, Cephalonia, Zante and Ithaca, and partly that of Leukada which, contrary to the other islands, displays some features of the Northern Greek Dialects.
3 The dialect of Constantinople, which was the capital of the Byzantine empire till the 15th c.
those of these categories. Thus, they are possible candidates for having a distinct status, the affixoidal one.

**mata-**

As a repetition marker, it is amply used in Heptanesian but can also be found in some other dialects, as for instance in the Northern Greek dialectal variety of Inoi, of the Lamia area (Papanagiotou, p.c.) and in Heptanesian. See the following examples taken from the Heptanesian dialect of the island of Ithaca (Simiris, 2017):

(1) matavγano ‘take out again’
   mataboro ‘can again’
   matatroo ‘eat again’

Diachronically, *mata-* derives from the prepositional preverb *meta-* which, in late middle ages (1100-1453 according to Browning 1969), had already become a prefix. Substantial proof for a prefixal status is the fact that the syllabic augment which, in Ancient Greek was generally interpolated between *meta* and the verb (2a), appears before the two constituents (2b):

(2)a. Ancient Greek: met-e-labon ‘I participated/took part in’
   b. Heptanesian: e-mata-irta ‘I came again’

*meta-* originally expressed the notions of accompaniment, participation or series of events, which can be attested in the Homeric texts (Humbert 1972: 339-340). The series of events meaning was the most frequent one, and following Humbert it ended up by dominating most constructions *meta-* was part of. It is this meaning that gave birth to current dialectal *mata-* as a repetition indicator, which can be traced back in late Medieval Greek. In fact, according to Kriaras (1966-2015) dictionary, the repetition meaning is already found in the Krasopateras text of the 13th c., while the *mata-* form is detected in the 16th c. Kartanos text:

(3)a. metavrondo ‘peal again’ (Krasopateras, 109)
   b. matakano ‘redo’ (Kartanos, 158)
   c. matapandrevome ‘remarry’ (Kartanos, 158)

*mata-* bears the following characteristics:

(a) It is bound, appears at the left side of constructions and selects verbal stems. The left-hand position, boundness, and selectional restrictions suggest a prefixal status.
(b) Like typical Greek prefixes, it is never head of the construction it is part of. Compare the following examples which contain *mata-* (4a) and the Greek prefix *kse-*:

(4)a. mata-fevγo ‘leave again’
   vs.
   b. kse-fevγo ‘escape’

(c) As already noted, it expresses repetition, a meaning which in SMG and many of its varieties is generally expressed by a free lexical item, the adverb *ksana*, which participates in compounds (5a), or in phrasal constructions (5b):

(5)a. matavγano ‘take out again’
   vs.
   b. kse-fevγo ‘escape’
Interestingly, in the dialects where \textit{mata}- is used, the two items compete and cannot appear together within the same word, not even for the purpose of enhancing repetition:

\begin{enumerate}
\item[(6)] Heptanesian
  \begin{enumerate}
  \item *[ksana-mata-ferno] or *[mata-ksana-ferno]
    re-re-bring
  \item *[mata-ferno ksana]
    re-bring again
  \end{enumerate}
\end{enumerate}

With the exception of the lexical meaning, all properties listed so far indicate a prefixal status. However, while for all Greek prefixed formations the two members are tied together by a strong bond and no other material is allowed to be inserted between the two, clitics can appear between \textit{mata}- and the verbal head, especially in sentences with negation.

\begin{enumerate}
\item[(7)] Heptanesian
  \begin{enumerate}
  \item mi mata-mu-vjis ekso
    don’t again-for.me-get out
    ‘Do not get out for me’
  \item \textit{δ}e mata-se-i\textit{ð}a apo tote
    did.not again-you-see since then
    ‘Since then, I did not see you again’
  \item \textit{δ}e mata-mu-to-efere
    did.not again-me-it-bring
    ‘(He/she) did not bring it to me again’
  \end{enumerate}
\end{enumerate}

Note that the strong structural cohesion cannot be broken in typical Greek prefixed (8) or compound formations (9):

\begin{enumerate}
\item[(8a)] a. mi mu to kse-thapsis
  do.not me it un-earth
  ‘Do not unearth it for me’
  vs.
  \item b. *mi kse-mu-to-thapsis
\end{enumerate}

\begin{enumerate}
\item[(9a)] a. mi mu to ksanaf eros
  do.not me it again-bring
  vs.
  \item b. mi mu to feris ksana
  do.not me it bring again
  vs.
\end{enumerate}
A further indication about the rather loose structural cohesion between *mata*- and the verb is the hesitation among Heptanesian speakers as to the position of the compulsory augment in past tense verbal structures: they vacillate between the absolute initial position (10a) and the word-internal one (10b), while there also speakers who would use two augments for the same verbal type (10c), one at the beginning of the word and the other in between the constituents (Simiris 2017):

(10)a. e-mata-fere  
   AUG-MATA-brought  
   ‘(s)he brought again’  

b. mata-e-fere  
   MATA-AUG-brought  

c. e-mata-e-fere  
   AUG-MATA-AUG-brought  

In fact, the use of examples such as (10b) is reminiscent of the past tense formations in Ancient Greek containing the prepositional preverb *meta*. One, thus, could suppose that *mata*- is gaining the same status of independence as that it had before becoming a prefix.

On the basis of the properties of *mata*, we can conclude that, on the one hand, it shares a lot of characteristics with prefixes, but the bond between *mata*- and the verbal head is not as tight as that in compounds or prefixed structures. Moreover, its meaning is synonymous of that of a free lexical item, i.e. *ksana*. Therefore, *mata*- can be a possible prefixoid leaning towards the status of free morpheme.

-opulo  

A possible case of suffixoid could be -opulo with the meaning of ‘chick, baby, child’. It is used in many formations of SMG (see 11) and several of its dialects, as for instance in the dialects of Thrace (Psaltes 1913), Pontus (Oiikonomidis 1958) and Crete (Ksanthinakis 2001).

(11)a. jiftopulo  
   child of a Gypsy < jift(os) + -opulo  
   Gypsy  

b. profiyopulo  
   refugee child < profi(y)(as) + -opulo  
   refugee  

c. Damaskopulo  
   Damaskos’ child < Damask(os) + -opulo  
   proper name  

d. aitopulo  
   eagle chick < ait(os) + -opulo  
   eagle  

In a very detailed and convincing essay, Hatzidakis (1905: 632-652) attributes -opulo to contact with Latin and derives it from the Latin word *pullus* ‘chick, chicken’. As loan, it underwent hellenicisation, becoming subject to phonological and semantic changes, and acquiring a Greek gender value and inflection. Following Hatzidakis,
the Latin pullus was firstly adopted as pulion⁴ with the meaning of ‘bird’, already in the 2nd c. AD, while under the form of puli is still used as a common item in SMG, having assumed the loss of the ending -o(ν) in the late middle ages (1100 – 1453, see Browning 1969: 81). Sometime before the 10th c. AD (Hatzidakis 1905: 648), -opulon also appeared as -opulo in order to denote the child or chick of an animate male or female being, carrying the endings -ös or -a which are the most typical ones of masculine or feminine nouns:

(12)a. Gavriilopulos < Gavriil + -opulos
   Gabriel’s son proper name
b. Arxontopula < Arxont(as) + -opula
   noble man’s daughter noble man

One of the dialects which adopted this use is Cretan, which, during the Venetian period (14th – 17th c.), displays many masculine forms in -opulos, with the meaning of ’son of X’. However, it entered in competition with the synonymous suffix -akis, and after a period of co-existence, -akis has replaced it around the 19th c (Ksanthinakis 2001).

(13) Cretan Xatzopulos and Xatzakis
‘son of Xatzis’

Note that from this use, in Cretan (e.g. papadopula ‘priest’s daughter) and other dialects, only the feminine form -opula has productively survived (see the SMG examples in 14a-c). In contrast, -opulos was further evolved into a simple formative, which is devoid of any meaning, and has the function of producing family names out of proper ones (14d,e). This family-noun formation process is principally found in the Peloponnese peninsula:

(14)a. Jiftopula < Jift(os) + -opula
   Gypsy daughter Gypsy
b. Prosfiropula < Prosfiri(as) + -opula
   refugee daughter refugee
c. Aitopula < Ait(os) + -opula
   female eagle chick eagle
d. Angelopulos < Angel(os) + -opulos
   Angel’s son

⁴ For etymological reasons, Hatzidakis spells the word as pullion with the double [l] of its Latin predecessor pullus. However, this orthography has only a historical value, since in the 2nd c. AD., pronunciation of double consonants had already been lost from the Greek language.

⁵ However, the feminine -opula still remains in use (e.g. papadopula ‘priest’s daughter’). Today, in Cretan, -akis has also become the predominant suffix for proper noun formation.
Interestingly, around the 12th c., or even before, -opulon had also assumed the function of creating diminutives of any type, of both animate and inanimate nouns:

(15) psalidopulon  <  psalid(ion) + -opulon
little fork  fork
(Prodromic poems, 12th c., see Hatzidakis 1905: 649)

As a consequence, in certain dialects, as for instance in Pontic, it is predominantly used for diminutive noun formation, under the form of -opulon in the Off area, or with the reduced forms -oplun in Oinoe and -opon in Tonja (only for non-human beings in Tonja):

(16) Pontic
   a. arnopulon (Off) ‘little sheep’
   b. arnoplon (Oinoe)
      (Hatzidakis 1905: 651)
   c. arnopon (Tonja)
      (Bayram Kara, p.c.)

Given the characteristics of -opulo mentioned above, we can conclude that it constitutes a particularly complex case, which may be split into two or three items. On synchronic grounds, and based on formal properties, the part with the meaning of ‘chick, child’ could be considered as a possible suffix with the following formal characteristics, typical of Greek suffixes: boundness, contrary to the original pulion (today puli) which is a free item, and headedness (Ralli 2005), since it is responsible for transmitting to its formation a specific gender value (neuter for -opulo and feminine for -opula). However, this item satisfies all five criteria given by Stevens (see above) for affixoids: it has undergone a meaning alteration (c,d), has become very productive into producing new items (a), exists alongside its parent morph puli, it is phonologically related to it (b), and in some cases (e.g. the Cretan example in 13) is in competition with a suffix. Nevertheless, from the suffixoid status, the evolved masculine form -opulos as a proper noun formative should be excluded, since there is lack of any abstract or concrete meaning and absence of any link to its parent item. The same could be said for the diminutive formatives (-opulon, -oplun and -opon, depending on the area) in the Pontic dialect (16), although this case is less clear because the hypocoristic meaning can be easily related to that of ‘chick or child’. Therefore, I would like to conclude that there are two or three homonymous items: one suffixoid and one or two suffixes, all diachronically deriving from the same item.

Discussion

With respect to the properties of affixoids proposed by Stevens (2010), we see that they generally match those of mata- and -opulo. However, with the exception of those in (c-d) which refer to the meaning and function of affixoids, there are some slight divergences due to either the particular type of the item under question, or to the
word-formation process which led to its development: (a) does not apply to prefixoids since the left-hand member of Greek derivative words is never head of the construction (Ralli 2005), but it can account for suffixoids, the Greek morphologically-complex formations being generally right-headed. Moreover, an affixoid which arises from a lexeme, as for instance -opulo may undergo an increase of frequency, and its word-formation process an increase of productivity, but there cannot be any generalization or safe estimation as far as the increase of frequency of an affixoid originating from an affix is concerned, since the frequency rates of certain affixes may be high or low, depending on the case. (b) claims a form identity between the affixoid and its parent morpheme. Considering the two items under examination, I would rather modify the phrase ‘form identity’ into ‘certain form similarity’ since both of them show a form variance with respect to their parent morphemes, which has resulted from the word-formation process responsible for their development through time: 1. the [e] of the original preverb meta- has been changed into [a] by a vowel assimilation, well-known to occur in the history of the language (Hatzidakis 1907: 504). 2. A reanalysis procedure has affected -opulo, which obtained an inflectional ending -ο, different from that of the original item, also through the compounding process which triggered its suffixoid status. Finally, (e) claims a competition or complementary distribution between an affix and an affixoid. This could be true for the diminutive -opulo competing with the Greek diminutive suffix -aki in certain areas (e.g. in the Peloponnese), but it cannot relate to prefixoids originating from prefixes, such as mata-, which is not in competition with a current prefix but with the free lexeme ksana.

Therefore, assuming that affixoids exist as a morphological category, mata- and -opulo could be safely considered to belong to this category.

Comparing now the two items above, mata- and -opulo and their own characteristics, it is significant to point out that their affixoid status has been diachronically activated by the type of the word-formation process into which they participated: -opulo has been developed through compounding, since it constitutes a shortened form of a compound constituent and the compound marker -ο. In contrast, mata- has evolved via derivation, since it has resulted from a prefix meta-, ascended from a preverb meta-, which, in Ancient Greek, could be also considered to belong to prefixoids, having become a prefix in the later middle ages. Their actual form corroborates this observation: [o] as initial vowel of -opulo is a remnant of the compound marker -ο, which is compulsory in Greek compounds (Ralli 2013). On the contrary, mata- bears no final [o], a compound marker being absent from derivative verbal formations.

The affixoids examined here resulted either from a loss in lexicality and a structural reanalysis involving a stem and a compound marker, as illustrated by -opulo or from a certain gain in lexicality and a phonological form change, as is depicted by mata-. As such, a framework closely related to diachronic linguistics, that of grammaticalization could very well describe their development, as well as their parallel existence, on synchronic grounds, with their parent morphemes, since the original items -pull(on) and meta are still used as a free verb and a preverb, respectively:

6 Stevens (2005: 5) uses this particular term for the German affixoids.

7 See Stevens (2005: 5-8) for applying the tests and processes of grammaticalization to German affixoids.
(17)a. To plio metaferi metanastes
   The boat carries/transports immigrants
   ‘The boat carries immigrants’

b. Vlepo ena puli sto parathiro tu spitju
   I see a bird at the window the.gen house.gen
   ‘I see a bird at the window of the house’

Note, however, that contrary to -opulo, the case of mata- could be seen as an instance of degrammaticalization, more precisely of the so-called ‘debonding’ (Norde 2009: 186), since from a clearly functional status as a prefix it shows a certain tendency to acquire a more lexical status, allowing clitics to be inserted between it and the head constituent, as illustrated in (7). In fact, in some Greek areas other than those of Inoi and the Ionian Islands though (e.g. in Macedonia, Thrace and in the Kalavryta area of the Peloponnese), a free mata has been observed (with stress on the first [a]) with the meaning of ‘again’, in both spontaneous (18a) and fixed phrases (18b) like those below:

(18)a. ama se διο ρα to kamis mata?
   when you beat.1Sg will it do.2Sg again
   ‘When I will beat you, will you do it again?’

b. emis θα in plirosume mata?
   we will it pay.1Pl again
   ‘Will we pay for it again?’

Interestingly, the clearly discernible presence of diachrony concerning the status of affixoids makes this category debatable, as compared to that of stems and affixes, whose etymology and diachronic development are most of the times obscure. The crucial question which arises, thus, is whether the category of affixoids may be considered on synchronic grounds as an independent one, parallel to that of stems and affixes, or it is a rather diachronic byproduct strictly depending on the blurred boundaries of these categories and the word-formation processes into which they participate.

On the basis of his discussion on affixoids, Stevens (2010) concludes that there is no strict dividing line between synchrony and diachrony, and adopts the notion of ‘panchrony’ which would include the two domains without any clear separation between them (see also Lightfoot 2011 for the same view). This approach would lead us to consider the territory between stems and affixes as a slide with no sharp demarcation lines. Instead, I am tempted to propose a synchronically independent status for affixoids and view the range of morphological categories below the word level as a step-ladder connecting stems, affixoids and affixes, in accordance with Kenesei’s (2006) proposal. The rationale which has led me to this decision is the following: first, as shown above, there are items which display properties not shared by stems or affixes. For instance, contrary to classical prefixes which all have categorial restrictions, and in prefixed words they are tightly bound with the base an
augment or a clitic can break the cohesion between *mata-* and the constituent it is combined with. Second, the properties of affixoids, as a whole, cannot be attributed to one or the other category, that is, to stems or affixes, on synchronic grounds. Third, there cannot be any prediction when a stem or an affix will turn into an affixoid, and not even any prediction whether and when an affixoid will become an affix or a stem/lexeme. Fourth, intermediate categories are a reality, even in synchronic terms, because categories do not have clear boundaries and only their prototypical status is clear. Fifth, languages may have categories which are not clearly discrete. Take, for instance, Turkish, where there is no distinction between nouns and adjectives (see on this matter Braun & Haig 2000).

Nevertheless, as evidenced above, it should be stressed that, on the basis of data examined here, the existence of affixoids must be language dependent since crucial notions that are used here for the entire argumentation, such as the property of stem-based morphology, compulsory inflection or that of having affixes are not universal.

Conclusions

To sum up, in this paper, I have argued that there is an intermediate category between stems and affixes, the affixoid one. More particularly, on the basis of Greek dialectal data, I have shown that a language with rich stem compounding and affixal derivation, may develop a series of affixoids coming from different sources, that is, either from stems or affixes. In line with Kastovsky (2009), I have proposed that the occurrence of this category is language dependent, being forged by the type of morphology of the language under examination. The process of becoming an affixoid is a diachronic one, interacting with a morphological system allowing stems and affixes as input to word-formation processes, that is, to compounding and derivation. However, this process prompts the creation of a synchronically relevant category, the members of which participate in structures which are not clearly compounds or clearly derived formations.

Bibliography


