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Headedness in diminutive formation: Evidence from Modern Greek and its Dialectal Variation*

1. Introduction

The notion of head has been applied to morphology by a number of linguists (see, among others, Williams 1981, Selkirk 1982, Di Sciullo & Williams 1987, Scalise 1988, and Lieber 1989) as a theoretical tool to account for the properties of morphologically complex words. More particularly, in a morpheme-based approach derivational suffixes are usually seen as heads of their formations, since most of them are responsible for determining the grammatical category of derived words (Scalise 1994: 184). However, there is no general agreement with respect to the headedness and derivational nature of evaluative suffixes, particularly of diminutive suffixes. On the one hand, on the basis of data drawn from languages such as Fula and Kikuyu, Anderson (1992) claims that evaluative material is like inflection, the latter being exempted from the headedness status. His basic arguments are the full productivity of diminutive suffixes, their integration into the nominal inflectional paradigm, as well as their interaction and alternation with the plural marker, which is generally considered to be inflectional. On the other hand, Ralli (1988) and Booij (1996) argue in favor of diminutive suffixes being derivational and heads, by using data from Greek and Dutch, respectively. According to their analysis, diminutive suffixes may not change the category of the base, but they determine the lexical subclass of their formations as well as their gender and inflection class. Within the same spirit, Bauer (1997) shows that in Klamath (described by Barker 1964) diminution behaves like a derivational process too. An intermediate position is taken by Dressler & Merlini-Barbatesi (1992, 1994) and Scalise (1988). Dressler & Merlini-Barbatesi (1992, 1994) suggest that diminutive affixes are not prototypical representatives of derivation, and thus, cannot be heads. Crucially, Scalise (1988) proposes that Italian diminutive affixes belong to a subcomponent situated between derivation and inflection, since they display the following characteristics:¹

* We are indebted to Franco Fanciullo, Giorgio Filieri, and Mark Janse for their assistance with data from Grico and Cappadocian.

¹ Stump (1993) has discussed the theoretical and the empirical problems of this proposal on a cross-linguistic level, showing that we cannot prove on a theoretical level that these properties are typical of evaluative suffixes, because they may systematically characterize other derivational suffixes of the same language. Bauer (1997:551) also claims that [...“while it may be possible to define evaluative morphology in terms of such a set of criteria, it does not seem that these criteria

- a) Like inflectional markers, diminutive suffixes do not change the category of the base (see also Grandi 2002).
- b) They are peripheral in word formation, but appear before inflection.
- c) They violate the Unitary Base Hypothesis (Aronoff 1976), that is they do not select bases of a unique category.

In this paper, we argue that diminutive suffixes have a number of properties, which make them derivational and heads of their constructions. We show that they impose selectional restrictions on the base, may change its semantic features, modify its grammatical gender and inflection class, and their combination with the base may cause unpredictable gaps, which are not proper to the base. Furthermore, we argue that the ‘strength’ of the derivational status and the headship properties of diminutive suffixes are subject to variation from one language to another, and to some extent, from one dialect to another within the same linguistic system.

In an effort to generalize and account for the peculiar behavior of diminutive suffixes, we adopt the idea of a morphological continuum (Bybee 1985), where derivational and inflectional affixes are at the two poles (see also Ralli 2005). We propose that diminutive affixes are situated in between, and appear closer to one pole or to the other, depending on the properties of the particular linguistic system, and the properties of the particular suffix. This position is within the spirit of Scalise’s (1988) proposal about evaluative affixation being situated in a morphological subcomponent between derivation and inflection, but also differs from it in that it denies a radical separation between the three subcomponents, i.e. derivation, evaluative morphology and inflection.

We illustrate our claims with evidence from Standard Modern Greek (SMG), and the Modern Greek dialects from Kydonies (Aivaliot), Cappadocia, Pontus (Pontic), and South Italy (Grico).² Crucially, dialectal evidence supports our claims about the general derivational nature and the headedness properties of diminutive suffixes. It is shown that even the most peripheral dialects of Modern Greek do not only keep, but also reinforce, these properties, sometimes against the type of diminution that characterizes a neighboring language, which has strongly influenced them.

The paper is structured in 4 parts: after the introduction, section 2 contains the basic criteria defining the derivational character of Greek diminutive suffixes: limited categorial sensitivity, selectional restrictions, alternation between diminutive suffixes, and the non-exclusive peripheral position. In section 3 the headedness issue is examined. We show that diminutive suffixes are heads of their constructions, since they are responsible for the basic morphosyntactic features characterizing these constructions. Finally, in section 4 we propose that in a morphological continuum containing all kinds of affixes, the diminutive suffixes are

universally match what might be thought of as evaluative morphology in a more pro-theoretical sense”].

² Pontic, Cappadocian and Aivaliot were once spoken in the Ottoman Empire (areas of Northwest Turkey, Cappadocia, and West Turkey, respectively). After the end of the war between Greece and Turkey in 1922, the dialects continue to be spoken in Greece, within communities of first, second and third generation refugees. The dialectal data is taken from available written material, as well as from the oral corpora of the Modern Greek Dialects Laboratory (MGDL) of the University of Patras.

situated between the two poles of derivation and inflection, and the fact that they may be closer to the one or to the other pole depends on the particular language. In this respect, the contribution of dialectal evidence is particularly significant.

2. Diminutive suffixes and derivation

In order to define the possible headship properties of diminutive suffixes, we should determine first whether they belong to derivation. In fact, with the help of a number of criteria we conclude that it is reasonable to characterize them as derivational. These criteria refer to the categorial and selectional restrictions, the possibility to have alternating diminutive suffixes for the same base, and the order between word-internal constituents,

2.1 Categorial and selectional restrictions

As mentioned above, there are languages where diminutive suffixes do not change the category of the base. Italian is such a language, where, as shown by Scalise (1988, 1994) and Grandi (2002), diminutive suffixes are assumed to be category neutral. However, categorial neutrality of diminutive suffixation may not apply to all languages. For instance, according to Booij (2005: 53) the Dutch suffix *-(t)je* determines the nominal category of diminutive nouns of verbal and adjectival bases:

- (1) blond_A > blondje_N
 blond blond girl
 speel_V > speeltje_N
 play toy

Moreover, categorial neutrality is not an exclusive property of diminutive suffixes, which makes them behave like inflection, but may characterize a number of derivational suffixes too. In the examples under (2), the Greek nominal suffixes *-aris* and *-dzis*, denoting a property or a profession, as well as the suffix *-ia* that forms abstract nouns, select nouns in order to build nouns as well:

- (2)]_N -aris]_N pexniδj-aris < pexniði
 playful, hantering toy
]_N -dzis]_N kafe-dzis < kafes
 coffee-man coffee
]_N -ia]_N anθrop-ja < anθropos
 humanity man

In addition, the presence of Greek diminutive suffixes demands selectional restrictions of syntactic, morphological and semantic nature, as opposed to inflectional markers, the distribution of which is more or less free. In the following examples taken from SMG and the Pontic dialect we see that the suffixes *-aki*, -

w/itsikos and *-opon* have specific subcategorisation requirements, and their noun formations have an explicit meaning of ‘little X’.³

(3)a. SMG

] _N -aki:	kliδ-aki	<	kliði
	little key		key
*] _A -aki:	*xodr-aki	<	xodros
	fatty		fat
] _A -utsikos	xodr-utsikos	<	xodros
	fatty		fat
*] _N -utsiko	*kliδ-utsiko	<	kliði

b. Pontic (Koutita-Kaimaki 1984)

] _N -opon:	elaf-opon	<	elafi
	little deer		deer
*] _A -opon:	*psil-opon	<	psilos
	little tall		tall
] _A -itsikos	psil-itsikos	<	psilos
	little tall		tall
*] _N -itsiko	*elaf-itsiko	<	elafi
	little deer		deer

Gender requirements are also imposed by several diminutive suffixes. For instance, the SMG suffix *-ula* and its correspondent dialectal *-uða* (Aivaliot) and *-eddha* (Grico) are attached only to feminine bases:

(4)a. SMG

-ula	port-ula	<	porta (Fem)
	little door		door
but	*vaz-ula	<	vazo (Neut)
	little vase		vase

b. Aivaliot (Ralli forthcoming, MGD L archive)

-uða	avl-uða	<	avli (Fem)
	little yard		yard
but	*trapez-uða	<	trapez (Neut)
	little table		table

c. Grico (Filieri 2001, MGD L archive)

-eddha	ornit-eddha	<	ornita (Fem)
	little hen		hen
but	*ner-eddha	<	nero (Neut)
	little water		water

³ For diminutive formations that are based on adjectives there may be an expressive reading beside the one with the meaning of ‘little X’, the latter being always present.

Very often, the attachment of a diminutive suffix to a possible base is governed by the inflection class of the base. In (5) we list examples from Grico, where *-aki* selects only neuter nominal bases ending in *-i*, while *-uddhi* selects nominal and adjectival bases ending in *-o*.

(5) Grico (Filieri 2001, MGDL archive)

- a. *-a(k)i* *kutal-ai* < *kutali*
 little spoon spoon
 **ner-aki* < *nero*
 little water water
- b. *-uddhi* *aderf-uddhi* < *aderfo*
 little brother brother
 ftex-uddhi < *ftexo*
 little poor poor
 **kutal-uddhi* < *kutali*
 little spoon spoon

Finally, the presence of diminutive suffixes entails semantic restrictions. The Pontic *-itsos* or *-itsis* attach only to [+animate] bases. Similarly, the Aivaliot *-i* requires [-human] bases:

(6)a. Pontic (Oikonomidis 1958)

- itso/is* *peð-itsos* < *peði*
 little child child
 fil-itsis < *filos*
 little friend friend

b. Aivaliot (Oikonomidis 1958)

- i* *kakn-i* < *kaknus*
 little turkey turkey
 purt-i < *porta*
 little door door

Therefore, bases are not freely selected by Greek diminutive suffixes. These selectional restrictions advocate a derivational status, and argue against attempts to list diminutive suffixes within inflectional material.

2.2 Alternation

Bauer (1983) has argued that derivation is characterized by low alternation in morphology, since it violates the Blocking Principle (Aronoff 1976, Scalise 1994), according to which if a suffix appears productively in a category X, it blocks the appearance of another suffix within the same category. However, as Katramadou (2001) has shown, high alternation is attested in the occurrence of SMG diminutive suffixes, and may be used as an argument against their derivational character:

- (7)a. SMG *-ula*, *-itsa*⁴ and *-aki* attaching to nouns
- | | | |
|--|---|--------|
| melis-ula / melis-itsa / melis-aki / melis-uli | < | melisa |
| little bee | | bee |
| vark-ula / vark-itsa / vark-aki / vark-uli | < | varka |
| little boat | | boat |

- b. SMG *-uli* and *-utsik(o)* attaching to adjectives

kod-uli / kod-utsiko	<	kodo
shorty		short
xodr-uli / xodr-utsiko	<	xodro
fatty		fat

Alternation is not the general rule of the Greek language though, since Greek dialects do not accept alternation, or display a low degree of alternation of diminutive suffixes. For instance, in Grico, the distribution of diminutive suffixes is restricted by both gender and inflection class⁵. As already shown, *-a(k)i* selects only neuter nominal bases ending in *-i* (8a), *-eddha* selects feminine bases, both nominal and adjectival (8b), and *-uddhi* combines with adjectival and nominal bases ending in *-o* (8c):

- (8) Grico (Rohlf 1977)

- a. *-a(k)i*: kotal-ai < kutali
 little spoon spoon
 ped-ai < pedi
 little child child
- b. *-eddha*: cater-eddha < catera
 little daughter daughter
 ftex-eddha < ftexi
 little poor poor
- c. *-uddhi* aderf-uddhi < aderfo
 little brother brother
 ftex-uddhi < ftexo
 little poor poor

Notice that the other dialects under examination, i.e., Pontic, Cappadocian and Aivaliot, show a limited alternation between only two suffixes, the most productive neuter suffix, which attaches to nominal bases of all three genders (–

⁴According to Daltas (1985: 80), *-ula* and *-itsa* do not alternate when the former selects a base whose stem ends in /l/, (e.g. **kotal-ula* but *kotal-itsa* ‘little spoon’) and the latter a stem ending in an affricate (e.g. **tarats-itsa* but *tarats-ula* ‘little terrace’) or in /i/ (e.g. **istori-itsa* but *istori-ula* ‘little story’). In all the other cases they alternate, but *-ula* is more frequent than *-itsa*. In our view, these observations reflect only tendencies, since there is a considerable number of counter examples.

⁵ There are few counter examples: *xronai* & *xronuddhi* ‘little year’ *pjatuddhi* & *piatai* ‘little plate’.

opon in Pontic, *-okko* in Cappadocian and *-el'* in Aivaliot)⁶, and the feminine suffix that combines with feminine bases (*-itsa* in Pontic and Cappadocian and *-uða* in Aivaliot). Examples of each dialect are shown in (9):

(9)a. Pontic (Koutita-Kaimaki 1984)

-opon	-itsa		
nif-opon	nif-itsa	<	nife
little bride			bride
aelað-opon	aelað-itsa	<	aelaði(n)
little cow			cow

b. Cappadocian (Janse forthcoming)

-okko	-itsa		
zevyl-okko	zevyl-itsa	<	zevyl(i)n
little collar attached to the yoke			collar attached to the yoke

c. Aivaliot (Ralli forthcoming)

-uða	-el'		
akl'is-uða	akl'is-el'	<	akl'isa
little church			church
γat-uða	γat-el'	<	γata
little cat			cat

The presence of alternation in SMG or the low alternation rate in Modern Greek dialects find an explanation in Grandi's (2002:153) observations, who notes that alternation among diminutive suffixes is not completely free, but is due to two factors: a) The referential meaning of diminutive suffixes (see also Bybee 1985), and b) the kind of restrictions to which diminutive suffixes obey; they attach to bases that pluralize, something which limits their applicability, although it does not determine their distribution.⁷ Grandi (2002: 154) adds that the tendency for alternation among diminutive suffixes is observed only in the standard forms and not in the dialectal ones, while the selection of one particular suffix can be an indication of social or geographical variation, that is it may depend on extra-linguistic factors.

As a partial conclusion, we can state that although alternation is a general cross-linguistic characteristic of diminutive suffixes, evidence from dialects where alternation is either absent (Grico) or very limited (Cappadocian, Aivaliot and Pontic) supports their derivational status. In other words, the absence, or the low degree of alternation of diminutive suffixes in Modern Greek dialects provides substantial evidence in favor of the thesis advocating their derivational nature.

2.3. Affixal order

⁶ Palatalization of /l/ is indicated as /l'/.

⁷ Abstract nouns like *sofia* 'wisdom', which do not pluralize, do not diminutivize as well: **sofi-ula* 'little wisdom'

Scalise (1988:235) has argued that within the word, diminutive suffixes are peripheral with respect to derivational suffixes, but internal with regard to inflectional ones, and that their position mirrors their position in grammar. On the contrary, Stump (1993), Bauer (1997) and Grandi (2002) have observed that this particular property is not proper to diminutive suffixes only, but may characterize other derivational suffixes too. For instance, in SMG peripheral (or closing) derivational suffixes are the productive adjectival *-ik-*, which denotes a property, and the participial adjectival *-men-*, which is followed only by inflection (e.g. *-os*):

(10) SMG

- a. organo-t-ik-os < organo-ti-s
 organisational organisator
- b. xor-iz-men-os < xor-iz-o
 divorced divorce

Crucially, the adjectival suffix *-ik-* can be combined with adjectival bases containing a diminutive suffix. In these cases, the presence of *-ik-* reinforces the diminutive meaning, as the following example illustrates:

(11) SMG

- mikr-ul-ik-os < mikr-uli-s < mikr-os
 very very little very little little

Note that in this particular example the diminutive suffix *-ul(i)-* appears before the derivational suffix *-ik-*. Since *-ul(i)-* is very productive, we could assume that there are no strict ordering requirements regarding the position of diminutive suffixes within the word. In fact, some diminutive suffixes may be followed by derivational ones, provided that the latter are very productive, such as the *-ik-* case. Since diminutive suffixes are not exclusively peripheral to morphologically complex words, we may accept them to be derivational.

3. Headedness

In the previous section, we argued that diminutive suffixes may be assigned a derivational status. Assuming this status, we can proceed into examining the ability of diminutive suffixes to function as heads. To this purpose, we check a number of features that could be used as criteria for the determination of headship properties.

3.1 Semantic features

As already mentioned (2.1.), Scalise (1988) argues that diminutive suffixes are category preserving. Thus, they cannot be heads in structural terms. However, as both Scalise and Stump (1993) point out, this characteristic may be shown by pure derivative formations too, where a head does not change the category of the base, but may change its semantic information. For example, the English suffix *-hood* in nouns like *manhood* modifies the semantic information of the base, in that

it changes the features [-abstract] and [+countable] into [+abstract] and [-countable], respectively.

The property of bringing a semantic change to the base is observed in many instances of Greek diminution. As an illustration, consider the diminutive suffixes –*aki* (SMG) and –*el'* (Aivaliot), which modify the feature [\pm countable], and cause a semantic specialization of the base, by narrowing its meaning:

(12) Semantic specialisation

a. SMG

psomi [-countable]	>	psom-aki [+countable]
bread		little bread
uzo [-countable]	>	uz-aki [+countable]
ouzo		a glass of ouzo

b. Aivaliot (Ralli forthcoming)

psumi [-countable]	>	psum-el' [+countable]
uzo [-countable]	>	uz-el' [+countable]

Evidence in (12) shows that while the base is a common [-countable] noun, diminutive derivatives are [+countable] and undergo a semantic specialization. For instance, *uzel'* in Aivaliot or *uzaki* in SMG are equivalent to a small glass of *uzo*. The sentence *Ήπιαμε δυο ουζάκια* [ipjame dio uzakia] ‘we had two ouzakia’ means ‘Ήπιαμε δύο ποτηράκια ούζο’ [ipjame dio potirakia uzo] ‘we had two glasses of ouzo’.

More rarely, a semantic change may lead to a non-compositional meaning (semantic lexicalization):

(13) Non-compositional meaning

a. SMG

melidzana	>	melidzan-aki
aubergine		dessert made of a special kind of eggplants
paputsia	>	paputs-akia
shoes		a recipe with eggplants

b. Aivaliot (Kretschmer 1905, MGDG archive)

lazarus	>	lazar-el'a
Proper name		Easter cookies
kali	>	kal-uða
good		naive

The examples in (13) show that the meaning of the diminutive form is entirely different from that of the base. For example, *paputsakia* are not small shoes but a recipe with eggplants. Note that this is a typical case of semantic lexicalization, which, according to Bauer (1997), characterizes derivation but not inflection. The particular phenomenon is common cross-linguistically, and offers

further support to the claim about the headedness and the derivational status of diminutive suffixes.

3.2 Gender

There are languages, for instance Italian (Scalise 1988), where diminutive suffixes do not usually change the gender value of the base (e.g. *uccell-ino* ‘little bird’ < *uccell-o* ‘bird’ *strad-ina* ‘little road’ < *strad-a* ‘road’). However, this characteristic is not universal, since there are also languages with the opposite phenomenon. For instance, in German, typical diminutives are always neuter. In SMG and some southern Greek dialects (e.g. Cretan, 14a) the diminutive suffix *-aki* forms neuter words from masculine or feminine bases. The same behavior is attested with the diminutive suffixes of peripheral dialects, see for instance, *-el*’ in Aivaliot, *-opon* in Pontic, and *-okko* in Cappadocian:

(14)a. SMG / Cretan

kip-aki.NEU	<	kip.MASC-os
little garden		garden
vrís-aki.NEU	<	vrís.FEM-Ø
little fountain		fountain

b. Aivaliot

ðaskal-el’.NEU	<	ðaskal.MASC-us
little teacher		teacher
kariyl-el’.NEU	<	kareyla.FEM-Ø
little chair		chair

c. Pontic

nif-opon.NEU	<	nif.FEM-e
little bride		bride
paxtsað-opon.NEU	<	paxtsa.MASC-s
little garden		garden

d. Cappadocian (Dawkins 1916)

zevyl-okko	<	zevyl.FEM-Ø
collar attached to the yoke		
kor-okko	<	kork.MASC-os
little yolk		yolk

It should be noticed that while in SMG it is possible for a base to preserve its masculine gender after undergoing diminution, the masculine value is restricted in Pontic only to animate nouns denoting affinity, but is totally absent from the other dialectal varieties, where diminutive formations are predominantly neuter, and to a lesser extent feminine:

(15)a. SMG

δaskal-ak.MASC-os < δaskal.MASC-os
little teacher teacher

b. Pontic

δaskal-its.MASC-os < δaskal.MASC-os

c. Cappadocian

δaskal-opp.NEU-o < δaskal.MASC-os

d. Aivaliot

δaskal-el'.NEU < δaskal.MASC-os

Interestingly, the exclusion of the masculine gender from the dialectal cases of diminutive formations and the predominance of the neuter value is in accordance with Daltas (1985:72) and Grandi (2002:33), in that the latter functions as a classificatory notion in diminution, and is considered to be the unmarked value of diminutive formations.

3.3 Inflection class

Further support to the claim that Greek diminutive suffixes constitute heads provides the fact that they determine the inflection class of the derived form, independently of the inflection class of the base, as the following examples illustrate:

(16)a. SMG

babakos.MASC.IC1⁸ < babas.MASC.IC2

b. Aivaliot

matsel'.NEU.ICx < matsu.NEU.ICy

c. Pontic

xorafopon.NEU.ICx < xorafi(n).NEU.ICz

Crucially, as the examples in (17) illustrate, the change in inflection class after diminution is particularly obvious in Grico, in spite of the fact that the dialect has undergone a heavy influence from Italian.

(17) Grico (Stomeo 1992)

anemuddhi.NEU.ICx < anemo.MASC.ICz

little wind wind

andzeluddhi.NEU.ICx < andzelo.MASC.ICz

⁸ According to Ralli (2000), there are eight nominal inflection classes in SMG. Since there is no particular analysis of the inflection classes in the dialects dealt in this paper, we refer to them as ICx, ICy, and ICz where, x, y and z are variables.

little angel	angel
kokkaluddhi.NEU.ICx	< kokkalo.NEU.ICy
little bone	bone

3.4. Inheritance of irregular morphology

Significant evidence to the claim that diminutive suffixes are heads is also provided by certain irregularities of diminutive words which are absent from the base. For instance, SMG neuter formations do not have a genitive case, as opposed to the inflectional paradigms of their bases:

(18) SMG

	Base	Diminutive formation
Nom./Acc./Voc.	peði	peð-aki
Gen.	peðj-u	-----

It might be argued that this gap could be a general characteristic of diminutive formations in general, or a phenomenon that is triggered by pragmatic factors, as noted by Triantaphyllidis (1941). However, this is not the case since words in *-aki* in the dialect of the island of Chios inflect for genitive (e.g. *peð-aki-u* ‘child.GEN’). Moreover, other SMG diminutive suffixes do not display the same gap. Consider, for instance, the diminutive words ending in the *-itsa* and *-ak(os)* suffixes:

(19) SMG

	Base	Diminutive formation
Nom./Acc./Voc.	porta ‘door’	port-itsa ‘little door’
Gen	porta-s	port-itsa-s
Nom	ðaskal-os ‘teacher’	ðaskal-ak-os ‘little teacher’
Gen	ðaskal-u	ðaskal-ak-u
Acc	ðaskal-o	ðaskal-ak-o
Voc.	ðaskal-e	ðaskal-ak-e

Thus, the absence of genitive case is a lexical, idiosyncratic irregularity of the SMG diminutive suffix *-aki*, which is transmitted to the diminutive formation through headedness and feature percolation.

The situation is similar in the diminution of certain peripheral dialects as well. In Aivaliot, for example, as shown in (20), diminutives in *-el* miss the genitive case. However, the other Aivaliot diminutive suffixes, *-uða* and *-i*, do not behave in the same way.

(20) Aivaliot

a.	Base	Diminutive formation
Nom.	mur-o ‘baby’	mur-el ‘little baby’

Gen.	mur-u	-----
Acc.	mur-o	mur-el'
Voc.	mur-o	mur-el'

b.	Base	Diminutive formation
Nom./Acc./Voc.	avl'i 'yard'	avl-uða 'little yard'
Gen.	avl'i-s	avl-uða-s

c.	Base	Diminutive formation
Nom./Acc./Voc.	porta 'door'	purt-i 'little door'
Gen.	porta-s	purt-j-u

4. Proposal

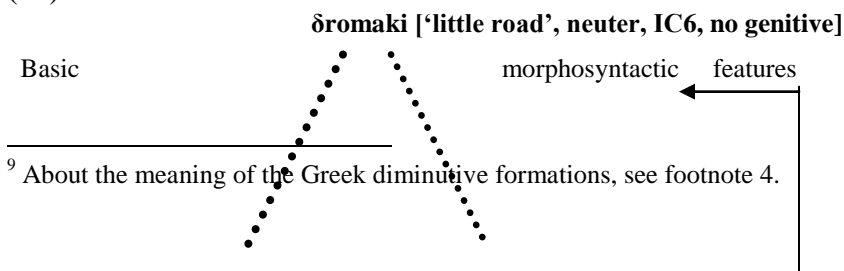
We have seen that both SMG and dialectal diminutive suffixes are responsible for passing up a set of features to their formations. These features are of semantic, morphosyntactic (i.e. gender), and morphological (i.e. inflection class) nature. Diminutive suffixes may also be responsible for certain gaps of the inflectional paradigms of diminutive words. The inheritance of all these features by diminutive formations cannot be accounted for unless diminutive suffixes constitute heads. The following two points need be stressed:

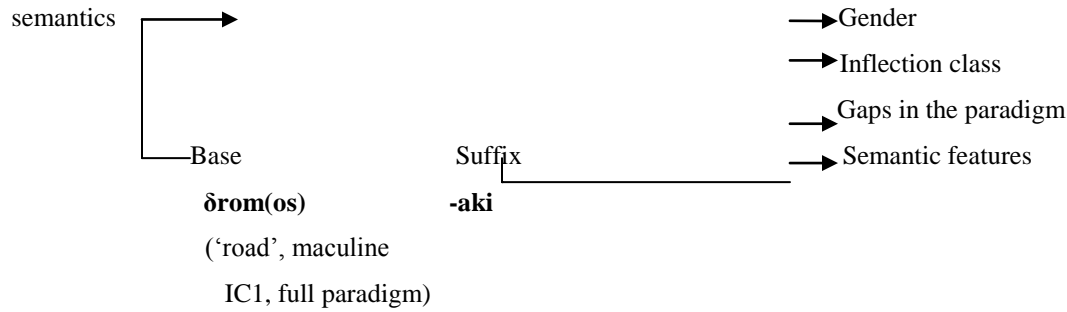
a. With the exception of some cases, where the meaning of diminutive formations becomes non-compositional (cf. [13]), diminutive suffixes do not usually cause a radical change to the meaning of the base.⁹ Assuming that there is a distinction between the notions of semantic and structural heads (cf. Zwicky 1985), we accept diminutive suffixes to fulfill the requirements for being the structural heads of their constructions, while, in most cases, the base preserves its right to be a semantic head.

b. Diminutive suffixes behave differently from inflectional ones with respect to headedness: they may not change only the morphosyntactic features of the base (the categorial signature in Lieber's [1989] terms), but some semantic features as well, or add certain idiosyncratic properties. This behavior makes diminutive suffixes to act like heads.

As an illustration, the following schema represents the percolation of features from the constituent parts to the SMG diminutive word *pexniðaki* 'little toy' (< *pexniði* 'toy'):

(22)





Crucially though, what merits further investigation is the cross-linguistic value of our claims. In other words, to what extent the derivational status and the headship properties of diminutive suffixes are language specific, or they depend on the properties of the particular languages?

It is important to stress that even within the same linguistic group, we have attested a considerable variety in the behavior of diminutive suffixes, in that there are Greek dialectal systems that strongly support our claims, and other systems that seem to adopt a weaker version of them. For instance, in SMG (official state dialect) there is a high alternation among diminutive suffixes that combine with the same base (7). This is a property which could be used as an argument against a clear derivational status. On the contrary, in Aivaliot, Cappadocian and Pontic the alternation is limited only in relation to feminine bases (i.e. bases accepting the suffixes *-itsa* or *-uda*, depending on the case, see (9)), while in Grico there is no alternation at all (8). Let us repeat some examples for clarity reasons:

(23)a. SMG

melis-ula / melis-itsa / melis-aki / melis-uli < melisa
little bee bee

b. Aivaliot

vark-uða / vark-el' < varka
little boat boat

c. Pontic

triyon-opon / triyon-itsa < triyona
little turtledove turtledove

d. Cappadocian

zevyl-okko / zevyl-itsa < zevyli
little collar attached to the yoke collar attached to the yoke

A plausible hypothesis would be to assume that within the same language there are dialects where diminutive suffixes look more like inflectional, and dialects where they behave more like derivational. However, this is not the case since within the same dialect diminutive suffixes do not behave uniformly with respect to their features. In particular, if Greek diminutive suffixes belong to inflection, we would expect them to show a considerable degree of consistency with respect to the following two features, which distinguish Greek inflectional affixes from derivational ones:

- a) Transparency to the grammatical category of the base, in that the same diminutive suffixes should attach to both adjectives and nouns.
 b) Sensibility to the gender of the base, because the form of Greek inflectional affixes is generally related to the gender value of the base (see Ralli 2002 for details).

As already seen, in Aivaliot the most productive diminutive suffix *-el'* is category neutral, since it attaches to both nominal and adjectival bases, without changing their category. In this respect, it behaves like inflection.

(24) Aivaliot

- a. aθrup-el' .N.NEU > aθrup-us.N.MASC
 b. purt-el' .N.NEU > porta.N.FEM
 c. umurf-el' .A > omurf-u.A.

-el' does not belong to inflection though because its form is independent of the gender value of the base. In fact, a possible change of this gender value is the most typical characteristic of Greek derivational affixes.

(25) Aivaliot

- a. aθrup-el' .N.NEU > aθrup-us.N.MASC
 little man man
 b. jnik-el' .N.NEU > jneka.N.FEM
 little woman woman
 c. aγur-el' .N.NEU > aγor.N.NEU
 little boy boy

In addition, as far as categorial neutrality is concerned, the situation is exactly the opposite in certain other Greek dialects, for instance in SMG and Pontic, where nouns and adjectives have their own diminutive suffixes (see also 3 above):

(26)a. SMG

- spit.N-aki.N vs. *spit.N-utsik-o
 little house
 vs.
 γlik.A-utsik-o.A vs. *γlik.A-aki
 sweetty

b. Pontic

- škill.N-opon / *škill.N-itsik-os < škill-os
 little dog
 vs.
 kod.A-itsik-os.A. / *kod.A-opon
 shorty

In an effort to propose a solution, we would like to invoke Scalise's (1984, 1988) idea about evaluative morphology being situated between inflection and

derivation. However, instead of accepting a radical separation between three morphological subcomponents, which would include a radical separation between their affixal entities as well, we assume that the various processes and affixes are parts of a morphological continuum, in Bybee's (1985) sense, where pure derivation and pure inflection are situated at the two poles, and evaluative morphology between the two (see also Ralli 2005). The postulation of a morphological continuum containing word-formation processes and affixes in a scalar hierarchy has a more generalizing power on a cross-linguistic level, than the assumption of an autonomous subcomponent assigned to evaluative morphology. In this organization of morphology, and depending on the properties of the particular diminutive suffixes, we assume that although they are derivational, some of them are situated closer to inflection, while others are closer to pure derivation. This morphological continuum may accommodate not only the variation that is observed among diminutive suffixes within the same linguistic system and genetically related systems (i.e. dialects of the same language), but also the variation across languages that are genetically unrelated. First, with respect to the same linguistic system, e.g. SMG, we could explain why some diminutive suffixes seem to have properties that are not typically derivational (see the *-akos* and *-itsa* cases that are category and gender transparent, see (3)), while other diminutive suffixes (e.g. the *-aki* suffix that changes the gender of the base) are clearly derivational. Second, in genetically related systems, e.g. Pontic and Cappadocian, we could interpret the fact that although both dialects share a lot of common features, Pontic has certain diminutive suffixes that are closer to SMG (see the masculine *-itsis/-utsos* suffixes as in (6)), the same suffixes being absent from Cappadocian. Moreover, we could also account for the inflection-like properties of diminutive suffixes in some languages, e.g. Fula as reported by Anderson (1992), or the clear derivational behavior of suffixes of other languages (see the Dutch cases described by Booij 2005).

Finally, it is important to stress the contribution of dialectal evidence to our claims. Several examples from Modern Greek dialects have shown that in spite of the fact that a dialect may be heavily influenced by another unrelated linguistic system (another language), the dialect still keeps the derivational features and the headedness status of the diminutive suffixes of its parent language, and sometimes reinforces them. Grico is a typical example illustrating this observation: although it has been in close contact with Italian, its diminutive suffixal system displays, among other things, the most characteristic derivational features of Greek, i.e. non-transparency to the gender and the category of the base.

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