# Reanalysis in Inflectional Morphology: Evidence from Modern Greek Dialects

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The Modern Greek varieties provide interesting evidence of reanalysis in inflectional morphology, examples of which are presented in this paper. The paper discusses the circumstances under which reanalysis took place in these examples and the models that may have triggered it, as well as its consequences for the morphological system of the language which among others include the creation of new stem allomorphs and, more generally, the emergence of allomorphy out of a previous state of absence of allomorphy.

**Keywords:** Modern Greek varieties, morphological change, reanalysis, pleonastic affixation, leveling, allomorphy, shift of boundary, loss of boundary, creation of boundary, agglutination, suppletion.

#### 1. Introduction

Reanalysis is a mechanism of morphological change which involves "moving of a historical morpheme boundary to a different location, or the insertion of a morpheme boundary not formerly present, in order to extract a word or morpheme not present in the original formation" (Trask 2000:274). According to Koch (1996:237f) cases of "loss of morpheme boundary" should also be considered as instantiations of the phenomenon of reanalysis in the sense that the "erasure" of boundaries is also an act of alternative analysis of the structure of word forms from the speakers' side.

Reanalysis (in the sense of inserting or shifting boundaries) is a form of analogy which is based on surface similarities of semantically related forms and typically sets analogical processes in motion. It is through these processes that reanalysis becomes "visible". In other words it is only when the new morphological structure imposed by speakers on a word form or a whole set of semantically related forms starts spreading to other paradigmatically related word forms that the change itself involving reanalysis can be said to be already

completed: The new structure has established itself and serves as the model of the reshaping of other word forms<sup>1</sup>. The surface similarities may arise through phonological changes or changes of other kinds as we will see (§2.3). As for the cases of boundary loss they can form the basis of the so-called "pleonastic affixation" (Haspelmath 1993:297-303) or "doubling of morphemes" (Koch 1996:246) (see also §2.4).

One of the most prominent cases of reanalysis in Greek linguistic history is the one that affected 3.PL imperfect forms of oxytone verbs, such as parekalúsan. Such forms were created in Koine times through substitution of -n by the ending -san common (originally only in the Ionic-Attic and Arkadian dialect groups) in 3.PL past forms of original athematic verbs e.g.  $\bar{e}$ -san > *i*-san 'they were' -1.SG present  $\bar{e}$ -mi-, e-ti-the-san 'they put/were putting' (e-: augment, ti: present reduplication) -1.SG present ti- $t^h\bar{e}$ -mi-, 3.PL perfective past (aorist) without reduplication: é-the-san (Doric éthen<\*é-thent, comp. Old Indic á-dhan < Indoeuropean \*é-d'H<sub>1</sub>-ent). Forms in -san contributed to a clear distinction of the forms of the 3.PL from the originally homophonous 1.SG forms (both parekálun< parekálon the latter contracted from older parekále-on). Analogous forms are attested in Koine texts also for barytone verbs (the traditional 1st Conjugation): e-légosan instead of original élegon 'they said/were saying' etc. Descendants of such forms of barytone verbs are to my knowledge not attested in Modern Greek (with the exception of some Dodecanesian varieties, Tsopanakis 1948)<sup>2</sup>. They became obsolete since the original endings have as a whole been replaced by the new set of past endings (markers of tense+person+number]) -a -es -e -amen -ete/-ate -an(e) which contributed to a clear distinction of the 1.SG and the 3.PL. Forms such as parekalú-san were reanalyzed as parekalús-an creating in the imperfect a new stem allomorph parekalús- which in parts of the Greek-speaking world was extended to the rest of the paradigm of the imperfect giving rise to an imperfect formation which also became part of the linguistic norm of the (written) Modern Greek standard language (-ús-a, -ús-es, -ús-e, -ús-ame, -ús-ete/ate, -ús-an(e)). In some of the varieties displaying this formation the latter did not extend beyond the plural (Hatzidakis 1905:43, Pantelidis 2003:34; see also §2.4 in the present paper). Such imperfect paradigms are common in many insular varieties (parts of Crete, Kýthira, Sérifos, Kímolos, Sými, Nísyros, Hálki, Rhodes etc.). E.g. islands of Rhodes and Halki (Tsopanakis 1948:23, 1949:57), and of Kýthira (Kontosopoulos 1982:135): jeló 'laugh', miló 'speak, talk':

Rhodes:

Type A: e-jélun, e-jéla-s, e-jéla-(n), e-jelús-amen, e-jelús-ete, e-jelús-a(si)n Type B: e-mílun, e-mílj-es, e-mílj-e, e-milús-ámen, e-milús-ete, e-milús-a(si)n Kýthira: e-mílu < e-mílun, e-mílj-es, e-mílj-e, e-milús-ame, e-milús-ate, e-milús-ane In other varieties, such as Maniot, reanalysis did not take place at all (the form of the 3.PL is the only one displaying -(u)s-). Let us now take a closer look at some more known and some less known instances of reanalysis in inflectional morphology from various Modern Greek varieties.

# 2. "Shift of boundaries": Evidence from Modern Greek Varieties.

## 2.1.Pontic.

The paradigm of the mediopassive perfective past (aorist): E.g.  $e-x\acute{a}-\theta-\alpha$  'I got/was lost' ( $-\theta$ - can be said to synchronically represent the marker of mediopassive perfective):  $e-x\acute{a}-\theta-\alpha$ ,  $-\theta-es$ ,  $-\theta-e$ ,  $-\theta-e$ ,  $-\theta-ame(n)$ ,  $-\theta-ete$ ,  $-\theta-am$  (Oikonomides 1958:282-284, Babiniotis 1972:215). The original (i.e. Ancient Greek) paradigm was ( $-t^h\bar{e}-$ : mediopassive aorist marker):  $-t^h\bar{e}-n$ ,  $-t^h\bar{e}-s$ ,  $-t^h\bar{e}-s$ ,  $-t^h\bar{e}-s$ . Two phonological changes of the Koine period, namely  $/t^h/>/\theta/$  and the abandonment of the distinction between short and long vowels (plus the retention of the original vowel quality of long /e/ in Pontic) formed the following possible "pre-Pontic" paradigm: \* $-\theta e-n$ , \* $-\theta e-s$ , \* $-\theta e-s$ , \* $-\theta e-men$ , \* $-\theta e-te$ , \* $-\theta e-san$ . The forms of the 2. and 3.SG and 2.PL were reanalyzed as containing the past endings -es-e and -ete respectively. The new structure was then extended to the rest of the paradigm.

# 2.2. Maniot.

A probably analogous case is evidenced in Maniot (data from Bassea (forthc.)): Verb  $\theta \acute{e}$ -u /  $\theta \acute{e}$ -o 'want'. The verb is synchronically a vocalic verb such as e.g.  $l\acute{e}$ -o ayapá-o etc.:  $\theta \acute{e}$ -u/  $\theta \acute{e}$ -o (depending on the region),  $\theta \acute{e}$ -is,  $\theta \acute{e}$ -i,  $\theta \acute{e}$ -me,  $\theta \acute{e}$ -te,  $\theta \acute$ 

## Table 1.

The paradigm of the impe	eriect:		AND AND ADDRESS OF THE PARTY OF				
"Inner" Mani + form Municipality of Koloký	i_H_a	í-θ-es	і-θ-е	і-θ-ате	í-θ-ate	í-θ-asi	

The expected paradigm is \*í- $\theta$ -a \*í- $\theta$ -es \*í- $\theta$ -e \*i- $\theta$ -ame \*i- $\theta$ -ate \*i- $\theta$ -asi. The attested imperfect paradigm probably resulted as follows: Original 2-3.SG.-forms \*í- $\theta$ -es > í- $\theta$ es and \*í- $\theta$ -e > í- $\theta$ e, which were reanalyzed as í- $\theta$ -es í- $\theta$ -e. The pattern was extended to the rest of the paradigm of the imperfect replacing the expected forms \*í- $\theta$ -a \*i- $\theta$ -ame \*i- $\theta$ -ate \*i- $\theta$ -asi. In the plural stress followed the general antepenult pattern of accentuation of Modern Greek active past barytone verbal forms. The change introduced thus a new grammatically determined stem allomorphy  $\theta$ -e  $\theta$ -. The present  $\theta$ -e-u/ $\theta$ -o did not serve as a

model for preventing the change but both categories followed different courses a fact which could be connected to the high frequency of this verbal lexeme (see also Bybee 1985:85) which renders its forms highly autonomous and prone to various phonological reduction phenomena. Note that this verb is anyway phonologically reduced also in the present in Maniot itself, in many dialects and in the spoken Modern Greek Koine as well:  $\theta$ élis >  $\theta$ es, dialectal (and in some Modern Greek Koine registers also) plural  $\theta$ é-me  $\theta$ é-te  $\theta$ é-ne, vs. standard  $\theta$ élume  $\theta$ élete  $\theta$ élun(e)). It is interesting to note that the imperfect of other verbs of similar phonological structure, such as lé-u/lé-o 'say, tell' did not undergo the same change. The imperfect of the latter is e.g. 1.SG é-le-a 3.SG é-le-e 3.PL e-lé-asi. No trace of an imperfect \*é-l-a \*é-l-e \*é-l-asi is attested at all.

Both this and the previous example can be considered as typical examples of phonological processes creating the basis for reanalysis.

### 3.3. Lakonian-Maniot.

In a considerable part of Lakonia and parts of the adjacent region of Mani (former municipalities of Malévri and Karyoúpolis, see Vayakakos 1972:15, Bassea (forthc.), Pantelidis (forthc.)<sup>3</sup>) the following imperfect paradigm of the verb  $\acute{e}xo$  'I have' is attested:  $\acute{t}xen-a$   $\acute{t}xen-es$   $\acute{t}xen-e$   $(i)x\acute{e}n-ame$   $(i)x\acute{e}n-ate$   $\acute{t}xen-an/(i)x\acute{e}n-ane$  '. The stem-initial unstressed /i/ in the plural often drops. The standard Modern Greek paradigm displays an allomorphy  $/ex-/\sim/ix-/$  between the present and the imperfect which goes back to Ancient Greek  $/ek^h-/:/ek^h-/(ex-:eix-)$ , the latter being the result of contraction of the augment e- and the stem initial vowel /e/ after the loss (via /h/) of original stem initial \*/s/intervocalically: \*e- $seg^h->*e$ - $sek^h->*e$ - $hek^h->e$ - $ek^h-$  (e-: augment). The (synchronic) allomorphy  $/ex-/\sim/ix-/$  in Standard Modern Greek (and most of its varieties of course) is rather marginal in the Modern Greek verbal system since the imperfective stem of barytone verbs is unspecified for tense in most Modern Greek varieties<sup>5</sup> and represents a relic.

In many Modern Greek varieties a syllable -ne is added to forms of the 3.SG imperfect (in some varieties also to forms of other persons), especially of the verb 'have'. Thus the original 3.SG form ix-e appears as ixe-ne. The latter form was reanalyzed as containing the marker -e ([past+3.SG.]): ixen-e, and the new structure was then extended to the rest of the paradigm. As typically, the 3.SG is treated as the most basic member of the paradigm to become the pivot of leveling. The new pattern did not extend beyond the verb 'have'.

This change yielded a lexically restricted, unique alternation  $ex-\sim ixen$ . The latter could be characterized as a new stem allomorph. Although both allomorphs are undoubtedly etymologically connected to each other, it certainly is highly doubtful if they can be synchronically derived by a morphophonemic rule from one another or from a common "underlying" stem. On the other side

both allomorphs retain a transparent semantic relation to each other. In other words both tenses, in the form they have acquired after restructuring of the imperfect, are still to be viewed as forms of the paradigm of one and the same lexeme. If we are ready to view suppletion as a gradable phenomenon we could rather speak of an increase in the degree of suppletion<sup>6</sup>. High frequency lexical items such as 'have' are among those that would favour paradigms with strong or weak suppletion. It is also interesting that this case of suppletion is unique in (Modern) Greek in the sense that it is associated with tense: suppletion in Modern Greek is always associated with aspect.

The whole process created an anomaly within the subsystem of the barytone verbs: the new alternation, which did not arise through sound change, is not congruent with the Modern Greek verbal system in the sense that verb stems in Modern Greek barytone consonantal verbs are primarily specified for aspect, not for tense, which means that no stem alternations according to tense are expected within the imperfective, with the exception of rather marginal cases of minimal and inherited (synchronically also weakly suppletive?) alternation like  $ex \sim ix$ . The whole process ran counter to any requirements for economical coding or did not meet other functional needs since it added more phonological material (extra marking) to an already sufficiently marked (not only by means of a different set of endings but also of the change of the root vowel) imperfective past. It seems that it is not only phonological changes that can (further) disturb "symmetry" or "regularity" (however the latter might be defined), which must in turn be restored. It is also alternative analyses, focused on certain more or less basic forms of a (sub)paradigm and the subsequent analogic extension of the new structures to fulfill local regularity requirements (in our case the regularity of the paradigm of the imperfect). An imperfect such as ixen-a only conforms to the general antenenult stress pattern of active past paradigms in Modern Greek. The present retained its original structure and did not become \*xéno. As Bybee (1985:85) notes, only very frequent paradigms can tolerate high degrees of morphophonemic irregularity. This is in fact the case with éx-o: ixen-a after emergence of the latter. Yet in this case the whole process moved towards creating "irregularity" in the first place from a previous state of "regularity" (apart from the /e/:/i/ alternation), it did not preserve an inherited irregularity which emerged otherwise.

3.4. Central Euboean (Évia; Kými and surrounding regions).

The paradigm of mediopassive aorist (see Favis 1911:57, Alexandris 1902:22):

Table 2.	W. C.			8	310750 C 31040 WHITE STREET
$di\theta$ in- $a$	díθi-s	díθi-	d <b>í</b> θis- <b>á</b> me	d <b>í</b> θis- <b>á</b> te	d <b>í</b> θis- <b>á</b> ne

The active aorist indicative is formed by suffixing –k- to the verbal base in the indicative. Before front vowels /k/ undergoes fronting –"tsitakismos"- to [c]: jénika 'I gave birth' (2-3.SG jénices jénice), főreka 'I wore, put on', épjaka 'I touched' etc. The subjunctive is formed by suffixing –s-, e.g. jeniso, not \*jeniko). The original paradigm of the mediopassive aorist should not have differed essentially from the respective paradigm of ancient and hellenistic Greek (on the Ancient Greek paradigm see above):

Table 3.		
$-\theta i$ - $n$ $-\theta i$ - $s$	$-\theta i$ - $-\theta i$ - $me(n)$ $-\theta$	i-te -θi-san

The form of the 1.SG continues the older form in  $-\theta in$  and constitutes diachronically speaking a case of pleonastic affixation (Haspelmath 1993:297-303, or "doubling of morphemes" Koch 1996:246-247) with addition of the (productive) 1.SG marker -a to the periphery of a form the structure of which had probably become opaque<sup>7</sup>. According to Koch this happens in order "to make the analysis of the word more transparent", which "typically occurs when the existing marker is obscure" (compare e.g. the English plural childer -> childr-en, or the Vulgar Latin infinitive esse 'to be' -> esse-re; p.246), by which is meant that the stem and the affix have fused. In our case  $-\theta in$  was not any longer felt as containing a marker -n, since it was not productive anymore. Through the addition of -a a new allomorph  $di\theta in$ - emerged<sup>8</sup>. An analogous development is also attested in the 1.SG.-imperfect form of oxytone verbs in a number of varieties (Pantelidis 2003:29f): older form e-fórun (originally stem final  $\frac{e}{+1}$ . SG.-imperfect -on = -e-on > contraction in the ancient Attic dialect to -o:n > -un)  $\rightarrow e-f \acute{o} run-a$  (present  $f or \acute{o}$  'wear, put on')<sup>9</sup>. The "unanalyzability" (of the rightmost part) of forms like e-fórun or e-dí $\theta$ in, as I have already pointed out elsewhere (Pantelidis 2003:30), could be connected to the expansion and the overwhelming presence of the marker -a (and 2.SG -es, 3.SG -e etc.) to mark past categories (combined with [person+number] -s -me etc.) in general. This process seems to have been restricted mainly to categories that already display "active" endings (-n, -s, -me, -te etc.), which in Greek diachronically also include the mediopassive agrist. However categories with mediopassive endings are not completely excluded from analogous developments. More on this in §2.5. The form of the 3.PL continues the original  $-\theta i$ -san with an /e/-enlargement due to a well-known tendency of Modern Greek for open final syllables yielding  $-\theta i$ sane. The form retained stress in its original position developing also secondary stress for avoidance of violation of the trisyllabic window. It was reanalyzed as containing the 3.PL past marker -ane, common in the synthetic past categories of the active voice with which the mediopassive agrist shares its [person+number] markers=agreement markers, e.g. -s -me -te etc.) anyway. The new structure was then extended to the rest of the plural only. As we saw in

§1, this is not uncommon in Modern Greek varieties. There are cases where there is a difference between the plural and the singular such that the singular displays a peculiar purely grammatically determined allomorphy continuing more or less the ancient forms, and the plural displaying no alternation and a stem allomorph which arose through reanalysis of the 3.PL and was subsequently extended to the rest of the plural forms (see §1). The forms of the singular seem to be the most resistant ones to restructurings and in numerous varieties they more or less continue the older forms with remarkable stability. On the other hand, the 3.PL may be semantically less basic than the 3.SG or singular forms in general (see Bybee & Brewer 1980, Bybee 1985, Koch 1994:31-34, 44ff), which could be related to the fact that its pattern did not extend to the singular (but compare the *-us*-imperfect above), yet within the plural itself it is the most basic of all three forms and may influence the forms of the 1-2.PL (Bybee & Brewer 1980:226f)<sup>10</sup>.

The whole process introduced a new stem alternation within the paradigm of the mediopassive aorist, which is governed not by phonological rules but is situated at the level of grammar:  $di\theta in \sim di\theta is$ . The new allomorph  $di\theta is$  beside its basic function as a stem allomorph cosignals number with the markers -me -te -ne.

# 2.4. Peloponnesian.

Another analogous and perhaps even more interesting case is attested in Peloponnesian varieties. In parts of the regions of Kalávryta and Gortynía in the 3.PL mediopassive imperfect an ending  $-\dot{o}sane$  is used (beside the well-known  $-\dot{o}sa(n)de$ ), which is most probably taken over from the respective form of the verb to be: i-sane 'they were'. This ending could as well be the result of dropping of the syllable /du/ (or perhaps also /di/) from the ending  $-\dot{o}(n)disan/-\dot{o}(n)dusan$  in fast speech, or of the unstressed /i/ or /u/ and subsequent cluster simplification. This form has given rise to occasionally occurring alternative 1.PL forms like erxós-ame 'we came/were coming' and stekós-ame 'we stood/were standing' (regular -\dot{o}maste or -\dot{o}mastan) which points to reanalysis of the form of the 3.PL as erxós-ane. Unfortunately the dialectal evidence is fragmentary, yet I regard it as most probable that this pattern did not extend beyond the plural. Even if forms like erxós-ame are just sporadic formations, it is interesting for the understanding of the mechanism and the range of reanalysis of past forms in Modern Greek.

## 2.5. Summary.

(a) According to B.Joseph (1998:362) "...many cases of reanalysis/reinterpretation involve some analogical pressures, especially when the

reanalysis is induced by models that exist elsewhere in the language". In the cases of reanalysis in inflectional morphology presented above the model is particularly strong since it is connected to one of the major categorial distinctions of the Greek verb: In the history of Greek especially from Hellenistic times onwards, there has been a general tendency for uniform overt suffixal coding of [+past], one of the major tense categories of the Modern Greek verb the other one being [-past] -combined with [person+number]- by -es -e -ame -ete/ate -an(e) (with  $a \sim e$  signaling past) in those synthetic verbal categories which diachronically display "active" endings (i.e. active imperfect and agrist, mediopassive agrist: standard  $-\theta ik$ -es  $-\theta ik$ -es  $-\theta ik$ -es etc.). This tendency and its effects have been extensively described and labeled "unification of past structures" by Babiniotis (1972:203-231). This is a millenia long process which -somewhat simplistically expressed of course and with all due caution because of the complexity and manifoldness of the process- one way or the other, at least in parts of the Greek speaking world, has affected all past categories of the Greek verb. In the first stage, that is in Hellenistic-Roman times, the system of terminations (=[person+number] markers+preceding vowel) of the synthetic active past tenses<sup>12</sup> of barytone verbs was unified to -a -es -e-ame(n) -ete (later -ate) -an. This set formed diachronically a highly productive model which has determined the way speakers have analyzed their data (or in some cases "underanalyzed" them as we saw in the case of  $di\theta in$ , §2.3) and changed them, gradually extending their domain of use: (i) The terminations/endings -a etc. were attached to whole opaque forms as in Euboean 1.SG mediopassive agrist  $di\theta in-a$ , or (in some varieties) in the original 1.SG imperfect form efórun 'I wore' where any previously existent boundary was lost  $\rightarrow$  eförun-a. The emergence of imperfects of the type ború(-y)-ame ború(-y)-ane  $ay\dot{a}pa(-\gamma)-a$  e-fóri $(-\gamma)$ -e is also an instance of this process (Pantelidis 2003). The blending/contamination of original 3.PL mediopassive imperfect ending -onto with active past -an to yield -ondan -which is a somewhat different case of course- could be viewed as a special instance of the process of 'unification of past' as well<sup>13</sup>. (ii) They were identified by speakers in forms which share with the pivots of reanalysis morphosyntactic properties + identical (partly as a result of phonological processes) strings of segments in the same part of the word form. This way they indirectly shaped the stem-forms (created new allomorphs) and introduced new alternations which in the cases presented here prove to be byproducts of processes aiming at increasing uniformity of coding of one of the major tense categories of the Greek verb at the end of the word form, across aspect, inflectional class or the distinction "active": "mediopassive" endings. Thus the introduction of stem allomorphy in the above presented cases is not a strategy itself, it is rather the result of a strategy aiming at uniformity at a different level. Reanalysis can create (new) stem allomorphs, further analogical processes (leveling) extend their domain of application.

(b) The steps speakers undertake after reanalysis certainly complicate grammar in the sense that they introduce new alternations to the left of the [tense+person+number] markers. These alternations do not conform to the overall Modern Greek verbal system as we would describe it. The strategies speakers apply, just aiming at local optimization, have a narrow scope and they certainly do not restore "regularity".

# 3. Various regions: The paradigm of the mediopassive imperfect.

Table 4.

í-mastan

í-sastan

í-tan

Data from: Favis 1911:58, Kolia 1933:278, Kontosopoulos 2001:130, Kostakis 1979:442-443, Papadopoulos 1927:93-95 & 105. The descendant of the ancient thematic vowel is separated for reasons of clarity of presentation:

ETOLIA- EURYTANIA	NOR' EUBOE	Parts of CENTRAL EUBOEA	
í-m' tan	í-m' tani	káθ-u-m' tani	erx-ú-m' tane
í-s' tan	í-s' tani	káθ-i-s' tani	erx-é-s' tane-s
í-tan	í-tani	káθ-i-tani	erx-é-tane

í-mastani

í-sastani

í-tani

káθ-u-mastani

káθ-i-sastani

káθ-u-ndan

erx-ú-mastane

erx-é-sastane

erx-ú-dane

**FOÚRNI** AYÁSSOS-Island of TZIÁ Island MYTILÍNI (only verb 'to (Samos district) CRETE (village (Island of Lésvos) be') of Lochriá) kimúme 'sleep' káθ-u-m'dan/-óí-mudan e-kimú-mutóne í-mutane m'dan (also i-mane) káθ-u-s' tan/-ó-s' í-sudan e-kim**ú**-sut**ó**ne i-sutane tan (also i-sane) káθ-u-dan/-ó-dan í-dane í-tane e-kimú-done (also i-tone) í-masténe e-kim**ú**-mast**ó**ne kaθ-ó-mastan í-mastone e-kim**ú**-sast**ó**ne í-sasténe kaθ-ó-sastan *i-sastone* e-kimú-done<sup>14</sup> káθ-u-dan/-ó-dan í-dusan í-tane

The paradigm of northern and central Euboea is in principle the same, the difference being in the stress pattern: Fixed stress on the verbal base in the north, and on the "thematic vowel" in the center. In central Euboea the violation of the

trisyllabic window is avoided through loss of unstressed /u/. Loss of unstressed vowels, which is systematic in "northern" varieties, is not totally unknown in otherwise "southern varieties" (e.g. Peloponnese, Pantelidis 2003:23f) especially in certain morphological environments as a means of avoiding violation of the trisyllabic window. The central Euboean 2.SG-form shows "pleonastic affixation" (marker -s(u)-+-s), probably due to its phonological similarity with the 3.SG., \*erxés' tane: erxétane.

H.Ruge (1984) has analyzed the tendency of Greek to give the mediopassive endings a more agglutinative structure. This analysis, despite its problems (what would -tan signal, if anything at all?), receives further support from evidence provided by numerous Modern Greek varieties. As can be inferred from the data in Table 4, the plural forms were reanalyzed as containing weak oblique forms (due to the presence of -mas--sas-) of the usually suppressed subject personal pronouns and extended the new structure to the singular. In some of the above-mentioned varieties (Tziá, Évia) the plural forms were reanalyzed as containing forms of the personal pronoun combined with an analysis of the 3.SG.-form as containing no special marker for [person+number] (a zero in certain theoretical frameworks)<sup>15</sup>, on which the new forms were built, as is evident from the phonological difference of the part of the forms which appear to the right of the forms of the personal pronouns (-tene vs. -dan): Tziá: *i-mas-téne i -sas-téne i-Ø-dane*  $\rightarrow$  *i-mu-dan i-su-dan*, compare also the paradigm from Fourni. Others, such as the variety of the Cretan village of Lochriá, just extended the pattern of the plural to the singular; e-kimú-mas-tone e-kimú-sas-tone  $\rightarrow e$ -kimú-mu-tone e-kimú-su-tone. The relatively wide but also discontinuous geographic extension of the phenomenon is also a matter worthy of further (historical) dialectological research.

A point which in Ruge's analysis is in my view not accounted for sufficiently is the opposition accusative:genitive between the present and the imperfect (present práfo-me: prafó-mu-n). How is this to explain on syntactic-semantic grounds? Is there anything that would point to a different "underlying" interpretation of the present as opposed to the imperfect forms or is it just the phonological identity with the respective pronominal forms that favoured this analysis?

What is interesting is the fact that a most basic morphological pattern of Greek, i.e. the expression of [person+number] on the rightmost part of the verb, did not prevent from locating (in the plural) markers of the least relevant for the semantics of the verb categories of [person+number] (see Bybee 1985:33-35) in a position more to the left leaving the rightmost part of the verb form to an element -tan(e) which is difficult to be assigned a function. If one adheres to a more extensive segmentation of forms, it could as well be characterized as an empty morph or an exponent of 'mediopassive past' 16. In this case what would seem to have happened is what could be called 'creation of boundary' (see Koch

1996:238f) in the sense that a part of the morph has split off from the rest to constitute by itself a new morph. It could certainly also be argued that once markers of [person+number] are recognized in a place more to the left and the pattern gives rise to analogous forms in the singular, they merge with -tan(e) to a new, unanalyzable whole. The decision depends on the theoretical framework one adheres to for a synchronic analysis of the data. In any case speakers in the first step identified "markers" of [person+number] further inward contrary to the relevance hierarchy as formulated by Bybee (1985:33-35). This development is not congruent with the Modern Greek verbal system (low degree of agglutination, if any at all, agreement ([person+number]) markers at the right end of the word form) do not seem to have necessarily formed an obstacle to alternative (not conforming to the predominant typology of the language) and from a semantic-syntactic point of view not very neat analyses of the linguistic data from the speakers' side. It is not very clear for instance what could have brought about the analysis of the mediopassive plural endings as containing genitive forms of the weak personal pronoun which don't agree with the case of the subject, i.e. the nominative. The analysis of the plural forms as containing genitive forms of the personal pronoun might of course have been favoured by mu- and -su- in the 1-2.SG imperfect endings ( $ka\theta \delta mun$ ,  $ka\theta \delta sun$ ). Yet a look at the singular endings of the northern varieties as a whole could lead to the conclusion that the starting point of the process that led to -mutan -sutan might in some cases have been rather 1-2.SG forms in -man -san (compare 3.SG -tan) rather than -mun -sun (so in Standard Modern Greek)<sup>17</sup>. The absence of a model elsewhere in Modern Greek for the analysis of the verb forms (of the imperfect only!) as containing oblique forms of personal pronouns is also noteworthy. The reanalysis of the plural forms and the emergence of the new singular forms could be connected to -as McMahon (1994:80) puts it- to "a tendency to form clear exponents of grammatical categories, which should be as strong as possible. Longer, more overt, and complex markers are consequently favoured". Yet no analogous present forms emerged (e.g. 1.PL  $ka\theta \acute{o}$ -mas- $te \rightarrow 1.SG$  \* $ka\theta \acute{o}$ me-te?) a fact which could be connected to the fact that the present is the (semantically) unmarked member of the imperfective system.

## 5. Conclusion.

The data from Modern Greek varieties can contribute to our understanding of the mechanisms and the range of certain kinds of morphological changes. They conform to the fact that reanalysis in inflectional morphology involving moving of boundaries is driven by surface similarities of form between semantically somehow related word forms. The "pivots" of reanalysis in the examples presented in this paper represent a major highly productive model that already exists in the language and concerns the right end of the word form, i.e. the place

where [tense+person+number] are marked. As is well observed speakers do not seem to care about the consequences of their alternative analysis for the system. They subsequently proceed to leveling which in many cases has, for various reasons, a narrow scope producing irregularity: In most of the cases presented above they create new stem allomorphs. The latter (e.g. ixen-) are sometimes real isolates within the verb system not only as regards their morphological structure but also as regards their function as marking certain categories, as e.g. imperfective past in Modern Greek. The result could in some cases also be characterized as (weak) suppletion, as in the case of the new imperfect ixena. As regards the cases of reanalysis involving "creation of boundaries" which were presented in §3, there isn't any model for such analyses elsewhere in the language which would make the alternative analysis plausible to speakers. Speakers seem to have been driven by the phonological identity of a part of the endings with word forms, the semantic content of which is contained in the verb forms. In fact the tendency to "break" the relatively long endings (markers of [person+number]) "down" into smaller units with less functions each (i.e. render the forms more agglutinating) could hardly be viewed as congruent with the verbal system of Modern Greek but more as conforming to some general tendency of morphological change towards more transparency of semantically more marked and complex forms.

## 6. Notes

- <sup>1</sup> On examples of the role of reanalysis in the emergence of new morphological patterns in derivation see Haspelmath 1994, Hock & Joseph 1996:171.
- <sup>2</sup> Tsopanakis (p.27) refers to the retention of analogous 3.SG forms in originally barytone verbs with stems ending in  $/\gamma$ / which through loss of intervocalic  $/\gamma$ / became oxytone: e- $l \dot{o} s a(si) n$  (< e- $l \dot{e} g o s a n$ ), e- $t \dot{o} \dot{s} a n$  ( $t \dot{r} \dot{o} (\gamma) o$  'eat'). These forms gave rise (through reanalysis) to 1-2.PL forms e- $l \dot{o} s a m n$  e- $l \dot{o} s e \dot{e} \dot{e}$ . As in the oxytone verbs, the new formation did not extend beyond the plural: SG  $\dot{e}$ - $l \dot{j}$ - $e \dot{e}$ - $e \dot{e}$
- <sup>3</sup> On Maniot and Peloponnesian respectively. To be published in *Modern Greek Dialects*, ed. by Ch.Tzitzilis, Thessaloniki: Manolis Triantafyllidis Foundation.
- <sup>4</sup>/x/ is always realised as [X] before front vowels in Modern Greek.
- <sup>5</sup> Exceptions to this are represented by some Macedonian, Ukrainian and Asia Minor varieties of Modern Greek, where the imperfect displays a different stem allomorph as opposed to the present.
- <sup>6</sup> A theoretical analysis of the phenomenon of suppletion is of course beyond the scope of this paper. I prefer to look at suppletion in synchronic terms and detach it from etymological considerations. I also regard it, following Dressler 1985 ("Suppletion in Word Formation". In *Historical Morphology* ed. by J.Fisiak. 97-112) as a gradable

phenomenon. For a recent theoretical (with a chapter on the criteria) and crosslinguistic study see L.Veselinova 2003, Suppletion in Verb Paradigms: bits and pieces of a puzzle, Stockholm University.

- <sup>7</sup> Such 1.SG forms are also in use in the Greek dialect of Calabria (Karanastassis 1997:84,89,90), Mégara (Hatzidakis 1980:87), and in the "semi-northern" variety of the adjacent to Kými island of Skýros (with fronting –"tsitakismos"- and loss of unstressed /i/-; Karatzas 1974): Verb ts'móme 'sleep' (standard kimáme): ts'miθ'na ts'miθ's ts'miθ's long the paradigm yielding –θines –θine –θiname etc.: e.g. islands of Aigina (Éghina, Thumb 1891:116), Mýkonos and Ándros (Dieterich 1908:124), Tziá (Kéa, Kolia 1933:278) and Kýthnos, parts of Crete.
- <sup>8</sup> See Haspelmath 1993, p.299: "...affix pleonasm leads to additional allomorphy, and this violates the universal preference for uniform coding. For instance, the Vulgar Latin double-marked infinitive es-se-re must have been reinterpreted soon as esse-re, with a new stem allomorph esse-". My objection to the latter analysis is that it is highly doubtful if, by the time speakers add one more affix, there is synchronically any overt affixal marking of the category at all. On esse: all active infinitives in Latin are marked by -re, an element that is absent from esse, which thus became unanalyzable to speakers. That is exactly why they added -re. In this sense it would be not very correct to speak of "affix pleonasm" or "doubling of morphemes" since in the beginning of the whole development there isn't any affix.
- <sup>9</sup> The latter form gave rise to a new imperfect formation: *efórunes efórune* etc.(Pantelidis 2003:29-32).
- <sup>10</sup> It is noteworthy that in the case under §2.3 the new pattern of the 3.SG (the semantically most basic or unmarked of all forms in a paradigm) extended over the whole paradigm, whereas the pattern that emerged through reanalysis of the 3.PL restricted itself to the plural. It seems that the forms of the singular have a higher degree of autonomy (in the sense of Bybee & Brewer 1980, Bybee 1985) which allows them to more easily resist restructuring.
- <sup>11</sup> Collections of the Academy of Athens' Historical Lexicon No.419:633 (year 1924) and No.1388:5 (year 1997) respectively.
- <sup>12</sup> Thematic imperfect and thematic aorist (-on -es -e -omen -ete -on) on the one hand and signatic aorist on the other (-s-a -s-as -s-e -s-amen -s-ate -s-an). The crucial point was probably the identity of the 3.SG ending (-e).
- <sup>13</sup> The changes affecting the mediopassive imperfect developed of course their own rationale due to a reanalysis of the 3.PL. mediopassive forms (-onde:-ondan) as representing a pattern present -e: past -an and to subsequent extension of the new pattern to the rest of the plural yielding -ómast-an -ósast-an (present -ómaste

-este/ósaste) and 3.SG. '-et-an (older and dialectal)/-ót-an (present -ete). It is interesting that in some varieties the principle 'uniform coding of [+past] by means of a-e' was applied in the place before the endings proper in the mediopassive forms, as in the active: Occasional 3.PL in varieties of Eastern Thrace (now Turkey) and Eastern Romylía (now Bulgaria) in -a-nde/-a-ndan. Apulía (Puglia) in Southern Italy (Karanastasis 1997:84): Present -o-me -ese -e-te '-omésta (with double stress) -este -onde vs. Imperfect -amo -aso -ato '-amósto '-asósto -atto.

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<sup>&</sup>lt;sup>14</sup> Kontosopoulos also mentions the 1-2.SG. forms *i-mutone* and *i-sutone* 'I was, you were' form the village of Níthavris which is geographically close to Lochriá (p.127).

<sup>&</sup>lt;sup>15</sup> See among others Watkins 1962:90-96, Householder & Nagy 1972:43, Bybee 1985:55f, Koch 1994:31-34.

<sup>&</sup>lt;sup>16</sup> On the issue of extensive segmentation of Modern Greek verb forms and of agglutinativity in the Modern Greek verbal system see R.D.Janda & B.D.Joseph's 1992 paper "Pseudo-Agglutinativity in Modern Greek Verb-Inflection" (proceedings volume I of the 28<sup>th</sup> Regional Meeting of the Chicago Linguistic Society, p.251-266) where they propose an approach to Modern Greek verb morphology in terms of "meta-templates".

<sup>&</sup>lt;sup>17</sup> The age of *-man -san* is unknown. Their wide geographic distribution (they appear even in southern varieties as e.g. Central Euboea, Old Athens, Cyclades etc.) might point to relatively high age.

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## 8. Περίληψη

Οι νεοελληνικές γλωσσικές ποικιλίες εμφανίζουν ενδιαφέρουσες περιπτώσεις επανανάλυσης στον τομέα της κλιτικής μορφολογίας, οι οποίες παρουσιάζονται στην παρούσα μελέτη. Εξετάζονται οι συνθήκες, υπό τις οποίες έλαβε χώρα η επανανάλυση στις περιπτώσεις που παρουσιάζονται, ενώ προσδιορίζονται τα πρότυπα με βάση τα οποία έλαβε χώρα, καθώς και οι επιπτώσεις της για το μορφολογικό σύστημα της γλώσσας. Οι επιπτώσεις περιλαμβάνουν μεταξύ άλλων τη δημιουργία νέων αλλομόρφων του θέματος και γενικότερα την εμφάνιση αλλομορφίας από ένα πρότερο στάδιο απουσίας αλλομορφίας.