

# Morphology meets Dialectology: insights from Modern Greek dialects<sup>1</sup>

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## 0. Abstract

The focus of this paper is to address a fundamental question regarding the relation between morphology and dialectology. On the one hand, it shows that the study of dialects offers new challenges to morphology, since dialects represent an important source of morphological phenomena. Dialectal research allows us to throw light on morphological theoretical issues, and establishes robust theoretical proposals. On the other hand, from a theoretical morphological perspective, it argues that morphological theory may provide accurate and interesting descriptions to dialectal phenomena because theoretical analyses can offer a repertoire of tools and concepts, which can be adapted within a dialectological framework, help systematize the research object, and refine the traditional description of dialects.

To these two goals, one should not neglect the typological and historical dimensions: a closer look at dialectal morphology can be profitable from the point of view of typology and historical morphology, since the study of dialects may offer additional insights to the discussion on possible language structures and language change. For instance, a number of grammatical features and patterns of variation that can be found in non-standard varieties are not part of the relevant standard linguistic systems. These patterns may be new, or old, as features of previous language periods may still exist alongside with new ones. In this sense, dialects portray ongoing linguistic change.

The data which illustrate views and proposals include examples from several Modern Greek dialects, and are extracted from grammars of individual dialects, as well as from the oral corpora of the *Laboratory of Modern Greek Dialects* of the University of Patras.

## 1. Morphology meets dialectology: general remarks

In morphological research, dialects have been accounted for only sporadically and rather unsystematically, since modern morphological theory is largely oriented towards the standard form of languages. As a result, a considerable number of interesting phenomena in spoken dialects of various languages are left without any consideration, and thus overlooked in morphological studies. As Anderwald and Kortmann (2002: 160) point out, the limitation to standard varieties is problematic, especially in languages with a long literary tradition, where the setting of norms has always played an important role, and certain features do not reflect the natural change, but rather more or less arbitrary changes, which are imposed by various prescriptivists. This view mirrors the situation in Modern Greek (hereafter MG), as the standard language (hereafter SMG) sometimes gives a false picture of what the grammar of the language is like.

In this paper, I show that a closer look at dialectal morphology is profitable from several points of view.

First, research from the dialectal domain is crucial from the theoretical point of view: it shows that dialectology helps refine morphological approaches, since dialectal phenomena offer a rich testing ground for morphological theoretical claims and proposals. In this study, I add to the discussion about crucial morphological issues, such as the following:

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- The inventory of morphological entities/primitives,
- The set of morphological phenomena.
- The set of constraints.
- The key notions of productivity and morphological creativity.

Second, the application of theoretical morphological approaches to dialectal phenomena may also provide accurate and interesting analyses to these phenomena, since theoretical proposals add a new dimension to the old description of dialects.

Third, dialectal evidence may offer additional insights to the discussion about linguistic change and typology, i.e. it can shed light on how a grammar of a particular language may look like, and what are its structural limits. For instance, a number of grammatical features and morphological structures that are detected in several MG dialects are not part of SMG. In this sense, dialects constitute a rich source of information on the grammatical possibilities of MG as well as on its historical evolution.

Research from the domain of MG dialects offers several interesting cases that could illustrate the points above. Most particularly, I deal, first, with the issues of morphological phenomena and constraints. By showing the important role of dialectal evidence, I aim to contribute to the debate about the structure of grammar, and morphology being an independent grammatical module. To this purpose, I examine the rise of an innovative pattern of compounds during the late medieval period (14<sup>th</sup> c. AD), namely the set of coordinative verbal compounds, as well as the crucial role of stem allomorphy in the organization of inflectional paradigms. Second, I add to the discussion about the demarcation of morphological entities and word-formation processes by providing evidence about a borderline case, which is situated between prefixation and compounding. I show that this case could also contribute to the discussion about the notions of morphological productivity and creativity. Finally, with the use of evidence drawn from Cappadocian, a peripheral MG dialect, I question the structural limits of a linguistic system with respect to change; namely, I demonstrate how a linguistic system may shift from one typological pattern to another, as a result of language-contact situations.

## 2. Morphologically proper constraints

If morphology is different from syntax or phonology, and forms a module of its own, it should display entities and phenomena that are different from those of the other modules. In this section, I examine the postulation of a constraint, which seems to be proper to morphology, since it applies to stems, that is to constituents playing a significant role in morphological structures, especially in fusional languages, such as Greek, where inflected words are made up of stems and inflectional endings. To this purpose, I use evidence from the set of coordinative verbal compounds, which are particularly developed in MG dialects.

As pointed out by Ralli (2007, to appear, in preparation.a), compounding is a rich word-formation process, and very productive in MG. There are compounds of all types and categories, the most peculiar of which are those of the coordinative verbal type, as these formations are not usually found in the other Indo-European languages, and did not characterize Classical Greek (5<sup>th</sup>-4<sup>th</sup> c. BC).<sup>2</sup> Like other Greek compounds, they constitute phonological words (i.e. they bear one stress), have a stem as their first member, and a compound marker/linking element *-o-* between the first and the second constituents.<sup>3</sup> Semantically, they combine two verbal stems of compatible or opposite meanings. Typical examples of these compounds are the following:

- (1)a. aniyoklino < aniy- klino  
to open and close open close

<sup>2</sup> However, according to Andriotis (1957), there is a single Ancient Greek (hereafter AG) example: *strephe dineomai* ‘twist’ attested in the Homeric poems.

<sup>3</sup> Note that according to Ralli (2008a), the linking element *-o-* between the first and the second constituent denotes the process of compounding, and may be considered as a ‘compound marker’. See Ralli (2008a) for additional details.

- b. *benovjēno* < *ben-* *vjēno*  
to enter and go out enter go out
- c. *pijēnoerxōme* < *pijēn-* *erxōme*  
to come and go go come
- d. *troyopino* < *troy-* *pino*  
to eat and drink eat drink
- etc.

(from Ralli 2007)

Following the Greek historical grammars (Jannaris 1897, Hatzidakis 1905-7), verbal dvandva compounds can be traced back at the end of the Hellenistic period (around the 2<sup>nd</sup> c. AD), with the occurrence of the verb *afksomio* (Ptolem. Synt. Math. 6,7, as cited by Andriotis 1957: 44), which contains a portion of the AG verb *auksano*: ‘increase, raise’ and the verb *meio*: ‘reduce’.<sup>4</sup> The number of verbal coordinative compounds has increased in subsequent periods, especially during the Medieval period, as attested by several vernacular texts (see Manolessou & Tsolakidis 2007, Joseph & Nichols 2007, Ralli 2008b). Today, a small number of verbal coordinative compounds can be found in SMG (as shown in (1)), but they do not belong to the most productive compound patterns. On the contrary, they are extremely productive in several MG dialects, where they occur in massive numbers. Andriotis (1957) offers numerous examples taken from the range of MG dialects, even from the most peripheral ones, such as Pontic, Cappadocian, and Cypriot:<sup>5</sup>

- (2)a. Pontic: *lambovrexī* < *lamb-* *vrexī*  
shines and rains shines rains
- c. Cappadocian: *maramuḍjazu* < *mara-* *muḍjazu*  
to fade and become numb fade become numb
- d. Cypriot: *skalopotizo* < *skal(iz)* *potizo*  
to grub and water grub water

Dialectal evidence is precious with respect to the analysis of these compounds: it helps us to draw conclusions about their structure, namely significant insights about the presence of derivational suffixes within compounds, and consequently, about the interaction between compounding and derivation.

On the basis of SMG compounding, Karasimos & Ralli (2007) have observed that, with some exceptions, the first constituent of the constructions under consideration is not a derived item. The MG dialects do not only corroborate this observation, but help us to formulate a plausible hypothesis about a possible account of it. A considerable number of dialectal examples show that derivative verbal stems participating as first constituents of coordinative compound structures are stripped of their derivational suffixes. As an illustration, consider the following cases that are taken from several geographical areas, as cited by Andriotis (1957).<sup>6</sup>

<sup>4</sup> As is widely known, the vocalic and consonantal systems of Greek have undergone a significant change during the Hellenistic period. Therefore, examples of Ancient Greek will be transcribed according to the Classical Greek pronunciation, while examples of the Hellenistic period (approximately 3<sup>rd</sup> c. BC – 3<sup>rd</sup> c. AD) as well as those of Medieval and Modern Greek will be given a Modern Greek transcription.

<sup>5</sup> All three dialects were (or are) spoken outside the Greek mainland and the islands. Cypriot is found in Cyprus. Pontic was spoken in the area of Pontus, in North-East Turkey. Today, it is still spoken by an unknown number of Pontic Muslims who still live in this area (see MacKridge 1987), as well as by Pontic refugees who settled in Greece after the end of the war between Greece and Turkey in 1922.

<sup>6</sup> According to Ralli (2008a), the linking element *-o-* which appears between the first and the second constituent is not a structural part of any of the two constituents. As such, it is not a derivational suffix, and appears in this position in order to denote the process of compounding.

(3)a. Crete:	alon-o- $\theta$ erizo <sup>7</sup>	< alon-iz-	$\theta$ erizo
	to thresh and reap	thresh	reap
b. Symi:	abar-o-kli $\delta$ ono	< abar-on-	kli $\delta$ ono
	to padlock	bar	lock
c. Karpathos:	a $\theta\theta$ -o-lulu $\delta$ izo	< a $\theta\theta$ -iz-	lulu $\delta$ izo
	to blossom and bloom	blossom	bloom
d. Rhodes:	imer-o- $\gamma$ alinizo	< imer-on-	$\gamma$ alinizo
	to tame and calm down	tame	calm down
e. Kefalonia:	kla $\delta$ -o-ka $\theta$ arizo	< kla $\delta$ ev-	ka $\theta$ arizo
	to prune and clean	prune	clean
f. Euboea:	vra $\delta$ jaz-o-ksimeronome	< vra $\delta$ j-az-	ksimeronome
	to spend all time	be overtaken by night	spend all night
g. Epeiros :	zim-o-majirevo	< zim-on-	majirevo
	to knead and cook	knead	cook
h. Lesbos:	kukl-u-stsipazo	< kukl-on-	stsipazo
	to wrap up and cover	wrap up	cover
i. Imbros:	majir-u-kinonu	< majir-ev-	kinonu
	to cook and pour	cook	pour

Note that in (3), the first constituent behaves like a verb: it belongs to the verbal category and has the meaning and the argument structure of a verb, although it is deprived of its derivational suffix, and superficially looks like a noun stem, where it derives from. On the basis of this evidence, and in order to account for the impossibility of derivational suffixes to surface within compounds, Ralli & Karasimos (2007) have proposed that Greek compounds undergo a morphological constraint, which is responsible for the deletion of the derivational suffix, the so-called *Bare stem constraint*, according to which stems appearing as first constituents of compound words must be as bare as possible. This constraint is motivated by the fact that Greek compounds are basically [stem stem] or [stem word] structures,<sup>8</sup> where the first constituent, being a stem, owes to be in a tied relation with the second constituent, i.e. with another stem or a word, depending on the case. Ralli & Karasimos have assumed that the strong bond between the two constituents is better ensured if the first stem is bare, in other words if it is deprived of any additive elements, i.e. suffixes. Note that evidence for suffix deletion from compound-internal stems should be stronger in coordinative compounds than in any other compounds, which bear a dependency relation (subordinative or attributive) between their constituent parts: by nature, coordinative structures display a weaker cohesion between their members, than the ones which are not coordinative. As a result, the fact that a rather loose structure does not allow the presence of compound-internal derivational suffixes adds to the postulation of the bare-stem constraint a particularly robust support.

In addition to the importance of dialectal coordinative verbal compounds for the existence of morphologically proper constraints, this evidence can also be useful as an illustration on how change and innovative structures may occur and affect a linguistic system. In fact, while SMG has been developed mostly in the last two centuries, the MG dialects constitute variants which arose from the Hellenistic Koine (approximately 3<sup>rd</sup> c. BC – 3<sup>rd</sup> c. AD). Therefore, it is only through dialects that one could detect the rise of the pattern of coordinative verbal compounds in MG, which was rather absent in AG.

### 3. Stem allomorphy in the organization of paradigms

In what follows, I try to provide substantial proof for the existence of a morphologically proper phenomenon and its contribution to the organization of grammar, as already pointed

<sup>7</sup> See footnote 3 about the compound marker *-o-*. Due to mid-vowel raising in unstressed position this *-o-* becomes /u/ in the Northern Dialects, among which, the ones of Lesbos and Imbros. For clarity reasons the constituents are separated by a hyphen, which does not appear in written Greek.

<sup>8</sup> For details on the structure of Greek compounds, see Ralli (1988, 1992, 2005, 2007, in preparation.a), Drachman & Malikouti-Drachman (1994), Nespov & Ralli (1996), and Malikouti-Drachman (1997).

out by Booij (1997ab). Most particularly, on the basis of evidence from SMG and three dialectal varieties, namely Lesbian, Aivaliot and Moschonisiot (hereafter LAM), I deal with stem allomorphy, and its role in the determination of inflectional paradigms.<sup>9</sup> I show that allomorphy is not a simple synchronic residue of historical processes, but may assume a crucial classificatory role, which leads to the distinction of inflection classes. In this respect, allomorphy cannot be seen as a simple deviation from form uniformity, but as a central morphological property which constraints paradigms, paradigm organization, and paradigm restructuring.<sup>10</sup>

It is well known that nouns and verbs of fusional languages are distributed in inflection classes, the classification of which is based on certain specific criteria. In SMG, verbs are inflected according to two major inflection classes, each class bearing its own inflectional endings in at least two paradigms, those of the present and the imperfect tense. According to Ralli (1988, 2005, 2006), this classification is based on the systematic presence, or absence, of a specific allomorphy pattern, which characterizes the stems, and has assumed the role of an inflection-class demarcator, in the sense that verbs that do not adapt to it are predicted to inflect differently from verbs that have it.<sup>11</sup> This pattern is described as X(a) ~ Xi, where the X(a) form characterizes paradigms of an imperfective aspect (present, imperfect and future continuous), while the Xi form is typical of paradigms of the perfective value (aorist and simple future). Verbs whose paradigms are submitted to this pattern belong to inflection-class II. Verbs which do not undergo this pattern inflect according to inflection-class I. As an illustration, compare the inflection of the SMG class-I verb *γrafo* ‘to write’ (5) with that of the SMG class-II verb *αγαπο* ‘to love’ (4):

(4) SMG: Stem allomorphs: <i>αγαπα</i> ~ <i>αγαπι</i>			
	a. Present	b. Imperfect	c. Aorist
SG 1P	<i>αγα'p(a)-o</i>	<i>a'γαπα-γ-a / αγα'p-us-a</i> <sup>12</sup>	<i>a'γαπι-s-a</i> <sup>13</sup>
2P	<i>αγα'πα-s</i>	<i>a'γαπα-j-es / αγα'p-us-es</i>	<i>a'γαπι-s-es</i>
3P	<i>αγα'πα-i</i>	<i>a'γαπα-j-e / αγα'p-us-e</i>	<i>a'γαπι-s-e</i>
PL 1P	<i>αγα'πα-me</i>	<i>αγα'πα-γ-ame / αγα'p-us-ame</i>	<i>αγα'πι-s-ame</i>
2P	<i>αγα'πα-te</i>	<i>αγα'πα-γ-ate / αγα'p-us-ate</i>	<i>αγα'πι-s-ate</i>
3P	<i>αγα'πα-ne</i>	<i>a'γαπα-γ-an / αγα'p-us-an</i>	<i>a'γαπι-s-an</i>
(5) SMG: absence of stem allomorphs			
	a. Present	b. Imperfect	c. Aorist
SG 1P	<i>'γραφ-o</i>	<i>'e-γραφ-a</i> <sup>14</sup>	<i>'e-γραφ-s-a</i>

<sup>9</sup> Lesbian is spoken on the island of Lesbos, while the Asia-Minor dialectal varieties Aivaliot and Moschonisiot were spoken once (before 1922) in the North-west coast of Turkey (former Asia Minor), namely in the areas of Aivali (today Ayvalik) and Moschonisi (today Cunda). The last two varieties are still spoken by second and third generation refugees in certain Asia-Minor dialectal enclaves of the island of Lesbos (cf. Ralli in preparationb).

<sup>10</sup> For the close relation between allomorphy and paradigmatic morphology, see also Booij (1997ab), and Maiden (1992, 2003).

<sup>11</sup> This suggestion is in accordance with Maiden (1992) who has shown that allomorphy patterns are very robust in paradigms, on the basis of evidence drawn from Italian. Moreover, as already noted by Ralli (2006), the X(a)~Xi pattern functions like a ‘schema’, in a broader sense of what is defined as a schema by Bybee & Slobin (1982), since it determines the paradigmatic behavior of a class of verbs, the members of which form a series of ‘family’ inflectional resemblances.

<sup>12</sup> *-γ-* or *-us-* are markers of an imperfective aspectual value, which are rather free variants in SMG. They characterize only verbs belonging to Class-II, since verbs of Class-I do not display this marker. In 2P and 3P of the singular, *-γ-* is palatalized before a front vowel.

<sup>13</sup> *-s-* marks the perfective aspectual value in most verbs of both inflection classes.

	2P	'ɣraf-is	'e-ɣraf-es	'e-ɣrap-s-es
	3P	'ɣraf-i	'e-ɣraf-e	'e-ɣrap-s-e
PL	1P	'ɣraf-ume	'ɣraf-ame	'ɣrap-s-ame
	2P	'ɣraf-ete	'ɣraf-ate	'ɣrap-s-ate
	3P	'ɣraf-un	'e-ɣraf-an	'e-ɣrap-s-an

Ralli's proposal for the role of allomorphy as an inflection-class demarcator finds crucial support in the dialectal domain. Consider the evidence from LAM in (6) and (7) below, where the paradigms of present, imperfect, and aorist, of the verbs *'ɣrafo* and *aya'p(a)o*, show the presence of the same systematic allomorphy pattern X(a) ~ Xi, as in SMG.<sup>15</sup>

(6) LAM underlying stem forms: X(a) ~ Xi (aya'p(a) ~ ayapi)				
	a. Present	b. Imperfect	c. Aorist (underlying ayapi-)	
SG	1P	aya'p-o	a'ɣap-um/a'ɣap-umna <sup>16</sup>	a'ɣap-s-a
	2P	aya'pa-s	a'ɣapa-s	a'ɣap-s-is
	3P	aya'pa	a'ɣapa	a'ɣap-s-i
PL	1P	aya'p-umi	aya'p-us-ami	aya'pi-s-ami
	2P	aya'p-uti	aya'p-us-ati	aya'pi-s-ati
	3P	aya'p-un	aya'p-us-an	aya'pi-s-an
(7) a. Present      b. Imperfect      c. Aorist				
SG	1P	'ɣraf-u	'e-ɣraf-a	'e-ɣrap-s-a
	2P	'ɣraf-s	'e-ɣraf-is	'e-ɣrap-s-is
	3P	'ɣraf	'e-ɣraf-i	'e-ɣrap-s-i
PL	1P	'ɣraf-umi	'ɣraf-ami	'ɣrap-s-ami
	2P	'ɣraf-iti	'ɣraf-ati	'ɣrap-s-ati
	3P	'ɣraf-in	'ɣraf-an	'ɣrap-s-an

It is important to note that the dialects, LAM in particular, provide additional and substantial proof to the general classificatory role of stem allomorphy: they show that the class-II pattern has been spread to a number of irregular verbs as well, the old stems of which displayed an allomorphic variation, but did not conform to the systematic X(a) ~ Xi pattern. As an example, consider the AG verb *sbennymi* 'to extinguish', which in SMG appears as *zvin* (8), while in LAM as *zvo* (9):

(8) SMG: stem allomorphs zvin ~zv(i)				
	a. Present	b. Imperfect	c. Aorist	
SG	1P	'zvin-o	'e-zvin-a <sup>17</sup>	'e-zvi-s-a
	2P	'zvin-is	'e-zvin-es	'e-zvi-s-es
	3P	'zvin-i	'e-zvin-e	'e-zvi-s-e

<sup>14</sup> The *e-* preceding the verbal stem is the augment. It appears in front of stems beginning by a consonant and is a stress carrier in the past tenses (imperfect and aorist). See Babiniotis (1972), Kaisse (1982), Ralli (1988), and Drachman & Malikouti-Drachman (2001) for more details on this.

<sup>15</sup> According to the LAM phonology unstressed high vowels /u/ and /i/ are deleted, and mid-vowels /e/ and /o/ become /i/ and /u/ respectively (see also footnote 7). For instance, underlying *'ɣraf-i* and *'eɣrap-s-es* become *'ɣraf* and *'eɣrap-s-is*. These phonological phenomena are present in the larger group of Northern Greek Dialects, members of which are Lesbian, Aivaliot and Moschonisiot.

<sup>16</sup> *A'ɣapum* is the form used in Lesvos, while *a'ɣapumna* is the one used in Aivaliot and Moschonisiot.

<sup>17</sup> The *e-* preceding the verbal stem is the augment. It appears in front of stems beginning by a consonant and is a stress carrier in the past tenses (imperfect and aorist). See Babiniotis (1972), Kaisse (1982), Ralli (1988), and Drachman & Malikouti-Drachman (2001) for more details.

PL	1P	'zvin-ume	'zvin-ame	'zvi-s-ame
	2P	'zvin-ete	'zvin-ate	'zvi-s-ate
	3P	'zvin-un	'e-zvin-an	'e-zvi-s-an
(9) LAM underlying stem forms: X(a) ~ Xi (zv(a) ~ zvi)				
		a. Present	b. Imperfect	c. Aorist (underlying zvi-)
SG	1P	zv-o	'e-zv-um/'e-zv-umna <sup>18</sup>	'zuf-s-a <sup>19</sup>
	2P	zva-s	'e-zva-s	'zuf-s-is
	3P	zva	'e-zva	'zuf-s-i
PL	1P	zv-umi	'zv-us-ami	'zvi-s-ami
	2P	zv-uti	'zv-us-ati	'zvi-s-ati
	3P	zv-un	'zv-us-an	'zvi-s-an

We see in (8) that the SMG verb belongs to class-I, because it does not display the systematic X(a) ~ Xi pattern. Its unsystematic stem allomorphy *zvin* ~ *zv(i)* is proper to this verb, and does not characterize a larger group of verbs. On the contrary, the LAM verb stem in (9) has undergone restructuring, according to the pattern X(a) ~ Xi (*zv(a)* ~ *zvi*), which made it conform to the class-II paradigms. Following Kuryłowicz (1949), we could claim that a process of analogy has occurred in LAM in order to establish a central contrast of the language, i.e. the presence or absence of the X(a) ~ Xi allomorphy pattern, which is used as an inflection-class demarcator, and replaces a more marginal allomorphy pattern. In fact, LAM shows an extensive use of this pattern for a considerable number of verbs, which, in their SMG instances, display various unsystematic stem-allomorphy patterns, and as such belong to class-I.<sup>20</sup> The dialectal levelling of various irregular verb stems according to the X(a) ~ Xi pattern may be considered as an optimization of the verb system on the level of lexical representations. In Kiparsky's (2003) terms, this levelling removes the irregular allomorphic variants from certain verbs, establishes a uniform stem-allomorphy pattern, and optimizes lexical representations by increasing their conformity to the system.

Finally, the dialectal evidence provided above confirms Booij's (1997ab) hypothesis about the significant contribution of allomorphy to inflectional paradigmatic structure, and provides support to the thesis for the autonomy of morphology, as a grammatical domain with its own phenomena, non-phonologically conditioned stem allomorphy being one of them.

#### 4. On a borderline case between morphological categories

In this part of the paper, I deal with items, the structural status of which is unclear, and as such have always been a problem for morphological theory, in synchronic terms, since they cannot be classified into one particular category, and the processes into which they participate cannot be adequately delimited. Namely, I look at a dialectal phenomenon, which is at the border between prefixation and compounding, and can be detected in a small number of LAM adverbial formations beginning by *sa-* (10). Beside the useful conclusions which we

<sup>18</sup> *A'γapum* is the form used in Lesvos, while *a'γapumna* is the one used in Aivaliot and Moschonisiot.

<sup>19</sup> /u/ in (9c) is an epenthetic vowel which appears between /z/ and /v/ (becoming /f/ in front of /s/) in order to make the three-consonant cluster /zfs/ easier to pronounce.

<sup>20</sup> Some of these examples are the following:

(i)	SMG	LAM
Verb	Stem allomorpha	Stem allomorpha
klino	klin ~ kli	kl(a) ~ kli
'to close'		
ftino	ftin ~ fti	ft(a) ~ fti
'to spit'		
arosteno	arosten ~ arostri	arust(a) ~ arusti
'to make/become sick'		

can draw about the borderline cases between morphological categories and word-formation processes, this phenomenon portrays a typical example of an ongoing change, and provides significant insights about the distinction between two important notions in morphology, productivity and creativity.

Consider the following examples, which are taken from Ralli & Dimela (2007):<sup>21</sup>

- |                                 |                      |
|---------------------------------|----------------------|
| (10)a. sapéra ‘far away’        | < sa- péra ‘away’    |
| b. saðó ‘over here’             | < sa- iðó ‘here’     |
| c. sáðju ‘over here’            | < sa- éðju ‘here’    |
| d. sáðuna ‘over here’           | < sa- éðuna ‘here’   |
| e. sací ‘over there’            | < sa- icí ‘there’    |
| f. sácina ‘over there’          | < sa- écina ‘there’  |
| g. sáftu ‘ofter there’          | < sa- éftu ‘there’   |
| h. sáfna ‘over there’           | < sa- éfna ‘there’   |
| j. sakátu ‘straight down there’ | < sa- kátu ‘down’    |
| i. sapánu ‘straight up there’   | < sa- apánu ‘above’  |
| k. samésa ‘more inside’         | < sa- mésa ‘inside’  |
| but                             |                      |
| l. *sáksu ‘more outside’        | < sa- óksu ‘outside’ |

These adverbs contain an adverbial word, which is preceded by a bound element *sa-*. The latter originates from the autonomous directional adverb *ísa* ‘straight’ (*ísjá* in SMG), and functions as an intensifier of the locative meaning of the base.

Like in SMG (11a), *isa* in LAM can also be used as an autonomous directional adverb, modifying verbs (11b), but not locative adverbs, since this function has been replaced by its reduced form:

- |                        |                                |
|------------------------|--------------------------------|
| (11)a. SMG             | b. LAM                         |
| kops-to isja           | kops-tu isa                    |
| cut it straight        |                                |
| pijene isja kato       | pani sakatu vs. *pani isa katu |
| go straight down there |                                |

*-sa* has undergone a phonological attrition with an initial /i/ deletion and the internal loss of the semi-vowel /j/. As shown by Ralli & Dimela (2007), in the case of *sa*-adverbs, phonological attrition cannot constitute a safe criterion for assigning to *-sa* a prefixal status, since both phonological changes are due to general phonological laws, which apply to LAM independently of the particular morphological environment of *sa*-formations: unstressed /i/ is deleted at the beginning of words, and /i/ is reduced into /j/ in word-internal contexts, between a /s/ and a vowel (see Newton 1972). More importantly, the appearance of *-sa* in morphologically complex adverbs is of limited productivity, since it is restricted to a handful of examples containing a locative adverb, and it does not combine with all locative adverbs, as shown by the ungrammatical example of \**saksu* in (10.l). This particular selection opposes *sa-* to Greek prefixes, which are more or less category neutral, in that they do not impose any special selectional restrictions on the base. Thus, the status of *sa-* as a prefix is doubtful.

On the basis of these properties, Ralli & Dimela (2007) have proposed that an element such as *sa-* still keeps its lexeme status. As a result, its combining with locative adverbs could be seen as an instance of compounding. In fact, *sa-* with its full adverbial form *isa*, also appears at the right-hand position of adverbial compounds, as for instance, in the

<sup>21</sup> Words in (10) are given in their dialectal form. For the deletion of unstressed /i/ and /u/ and the mid-vowel raising, also in unstressed position, see footnote 15.

formation of (12a) or can accept the verbal derivational suffix  $-az(u)$ <sup>22</sup> in order to form the verb *sazu* ‘to put order’:

- (12)a. *uloisa* < *ulu* *isa*<sup>23</sup>  
 all straight all straight  
 b. *sazu* < *isa*  $-az-$   $-u$   
 to put order straight DER INFL

However, the ‘compounding’ hypothesis runs against the fact that *sa-* in (10) selects locative adverbs, because selectional restrictions do not usually characterize compounds (but see Bisetto, Guevara & Scalise for an opposite view). Moreover, the meaning of *isa* as a second member of compounds (like in the example of 12a), or as the base of a derived word (12b) is not reduced into the general intensifying function displayed by *sa-* in (10).

Since there is no sufficient semantic or formal justification of the hypothesis that *sa-* is a lexeme, or of the one that it has been morphologized into a prefix, Ralli & Dimela (2007) have proposed that *sa-* is under the process of becoming a prefix, but has not acquired the full prefixal status yet. In other words, they have argued that although *sa-* does not have all the properties of a real prefix, and there is no guarantee that it will result into being one, there are serious indications (e.g. form reduction and reduced meaning) of a morphologization in progress.<sup>24</sup>

In languages, it is easy to find examples that appear to be at various points of a potential diachronic development, that is items that are in the process of losing their word independence (see also Bauer 2005: 98). Since the categorial status of these items is not clear, and the processes into which they participate are not well delimited, I propose to appeal to the notion of *morphological creativity* in an effort to provide an analysis to the problems raised by the peculiar behavior of *sa-*. According to Schultink (1961) and Lieber (1992), morphological creativity is the process under which there is a conscious coinage of a new word, as opposed to *morphological productivity*, which involves words that are unintentionally created (Bauer 1983, 2001, Plag 1999). Extending the notion of morphological creativity, Baeskow (2004: 78) assumes that it can also include phenomena involving a superficial reinterpretation of items, which may be done for specific purposes, but without any real change of their inherent categorial status. Adopting this broadened view of morphological creativity, I would like to suggest that it can account for the properties of the LAM *sa-* formations, from the synchronic point of view: As already pointed out, there are properties which list them as prefixation, and properties that make them similar to compounding. In the examples of (10), *sa-* seems to behave like a prefix in a specific context, i.e. when it is combined with the majority of locative adverbs, and may be reinterpreted as such. However, I suggest that this reinterpretation is only superficial, since the full form *isa*, from which *sa-* is derived for independent phonological reasons, still keeps its lexeme status as far as its lexical entry is concerned. In other words, *isa-* functions as a prefix in the particular context of its combination with the locative adverbs (see examples in (10)), but does not have undergone a radical category change from lexeme into prefix.

Finally, elaborating on the phenomenon of the ambiguous status, i.e. prefixal or lexematic, of *sa-*, and by taking into consideration data from other MG dialectal systems, I would like to suggest the importance of dialectal evidence into showing ongoing linguistic changes. We have already noticed that the directional adverb *isja* in SMG is not affected by any change with respect to its word status. The same seems to apply to the dialectal systems of the island of Corfu (Corfiot) and Peloponnese. On the contrary, *isja* seems to have become a full prefix in the dialect spoken on the island of Crete. As noted by Dimela (2005), in

<sup>22</sup> The  $-u$  in parenthesis is the inflectional ending of 1P singular.

<sup>23</sup> In this example, there is no need for /i/ deletion, since /i/ is not in initial position.

<sup>24</sup> For details about morphologization and its difference from grammaticalization, see Joseph (2003).

Cretan, a corresponding to *sa-* element, *s(j)o-*, is found prefixed to several categories, i.e. to verbs (13a), adjectives (13b), and adverbs (13c).<sup>25</sup>

- (13) Cretan
- |                   |       |                 |
|-------------------|-------|-----------------|
| a. sojerno        | < so- | jerno           |
| ‘become very old’ |       | ‘to become old’ |
| b. soaspros       | < so- | aspros          |
| ‘very white’      |       | ‘white’         |
| c. sodreta        | < so- | dreta           |
| very straight     |       | straight        |

As seen in (13), and as opposed to the LAM *sa-*, the Cretan *-s(j)o* is attested in a wider context, where it is extremely productive. As a proof of its productivity, we find *-s(j)o-* to be used in the creation of neologisms which cannot be detected in the most updated Cretan dictionaries (e.g. Idomeneas 2006, Garefalakis 2002, and Ksanthinakis 2000), while neology with the use of *sa-* is not generally possible in LAM. An additional argument in favor of the Cretan *s(j)o-* being a prefix comes also from the fact that, on synchronic grounds, native speakers make no link between its initial lexical meaning and the actual intensifying function. On the contrary, they often mix up *s(j)o* originating from ‘straight’, with *so-* which comes from the preposition *sin*. It is important to stress that such a confusion in form and meaning does not occur in LAM, where *sa-*, beside the phonological transparency, still keeps a certain degree of semantic transparency with the original *isja*.

In conclusion, variation in both the status and the form of *isja*, depending on the dialect, is a good illustration of an ongoing linguistic change within the same language, in our case, MG, and could further motivate the existence of a dialectal continuum with a graded hierarchy between its two poles. One of the poles of the particular continuum should contain the dialects of Corfu (Corfiot) and Peloponnese, and also by SMG, where a full adverbial word *isja* is present without being reduced into *sa-*. LAM are situated in the middle of the continuum, since in these dialectal varieties, there is no proof that *sa-* has become a full prefix yet. The other pole contains dialects like Cretan with a fully morphologized *sa-* into a prefix.

## 5. Dialects and morphological typology

In this last section, I examine the issue of change in morphological typology. I show how informative dialectal information can be into determining the extent of influence of one particular linguistic system onto another in language-contact situations, especially with respect to isolated speech communities which are unlikely to reflect the type-conforming regularities according to Trudgill (2004).

To this purpose, I investigate the nominal inflection of one of the Greek peripheral dialects, namely the Asia-Minor dialect of Cappadocian, which underwent a Turkish influence following the Seljuk invasion in the 11<sup>th</sup> century, and the subsequent conquest of Asia Minor by the Ottoman Turks in the 14<sup>th</sup> century.<sup>26</sup>

As already known, Greek is a typical fusional language, whose nominal inflectional endings are portmanteau morphemes, combining the features of number, case and inflection class, while gender, with its three values, i.e. masculine, feminine and neuter, belongs to the

<sup>25</sup> *Sjo-* appears in Western Crete and *so* in Eastern Crete. See Charalambakis (2001), Pangalos (1955) and Ksanthinakis (1996, 2000), for a detailed discussion about the origin and the formation of *s(j)o-*.

<sup>26</sup> Cappadocian was spoken in about 32 Greek-speaking settlements in central Asia Minor (today’s Turkey), before 1923, when the exchange of populations between Greece and Turkey took place, following the Lausanne treaty. Today, there are few remaining native speakers, in certain areas of Greece (in the areas of Karditsa, Chalkidiki and Kavala), all of them descendants from Cappadocian refugees.<sup>26</sup> According to scholars who have described Cappadocian (e.g. Dawkins 1916, Janse forthcoming), this dialect shares a lot of similarities with an old form of Greek, namely the one of the Byzantine period.

features of the stem.<sup>27</sup> For instance, in the SMG nominal paradigms of (14) below, the nominative plural of the SMG masculine noun *milos* ‘mill’ ends in *-i*, and the one of the neuter noun *fito* ‘plant’ in *-a*.

As opposed to SMG, and according to the grammatical descriptions by Dawkins (1916) and Janse (forthcoming), the Cappadocian nominal inflection system appears to be simplified, in that there are less case forms (e.g. no vocative case) and a smaller variety of inflectional endings. For example, as depicted in (15), the Cappadocian endings corresponding to the SMG nouns of nominative plural are levelled into the single form *-ja*. Furthermore, under the influence of Turkish, which has no gender distinctions, the typical Greek three gender values (masculine, feminine and neuter) have been levelled into one, which has the form of the neuter gender:

(14)	SMG		(15) Cappadocian <sup>28</sup>	
a.	mat.NEU ‘eye’		mat.NEU	
	Singular	Plural	Singular	Plural
Nom	mati	<b>matja</b>	mat <sup>29</sup>	<b>matja</b>
Acc	mati	<b>matja</b>	mat	<b>matja</b>
Gen	<b>matju</b>	<b>matjon</b>	<b>matju</b>	<b>matju</b>
Voc	mati	<b>matja</b>		
b.	fito.NEU ‘plant’		fito.NEU	
	Singular	Plural	Singular	Plural
Nom	fito	<b>fita</b>	fito	<b>fita/fitja/fitoja</b>
Acc	fito	<b>fita</b>	fito	<b>fita/fitja/fitoja</b>
Gen	<b>fitu</b>	<b>fiton</b>	<b>fitu/fitju/fitoju</b>	<b>fitu/fitju/fitoju</b>
Voc	fito	<b>fita</b>		
c.	milos.MASC ‘mill’		milo(s).NEU	
	Singular	Plural	Singular	Plural
Nom	<b>milos</b>	<b>mili</b>	<b>milo(s)</b> <sup>30</sup>	<b>milus/milozja/miloja</b>
Acc	<b>milo</b>	<b>milus</b>	<b>milo(s)</b>	<b>milus/milozja/miloja</b>
Gen	<b>milu</b>	<b>milon</b>	<b>mil/milju/milozju/miloju</b>	<b>mil/milju/milozju/miloju</b>
Voc	<b>mile</b>	<b>mili</b>		
d.	ađelfos.MASC ‘brother’		ađelfo(s).NEU	
	Singular	Plural	Singular	Plural
Nom	<b>ađelfos</b>	<b>ađelfi</b>	<b>ađelfo(s)</b>	<b>ađelfozja/ ađelfoja</b>
Acc	<b>ađelfo</b>	<b>ađelfus</b>	<b>ađelfo(s)</b>	<b>ađelfozja/ ađelfoja</b>

<sup>27</sup> See Ralli (1999, 2002, 2005) for details on Greek nominal inflectional features.

<sup>28</sup> The inflectional endings of the nouns below are given in bold characters.

<sup>29</sup> Like the Northern Greek dialects, Cappadocian undergoes high vowel deletion in unstressed position. For the same phonological phenomenon, see also footnotes 7, 15, and 18.

<sup>30</sup> The accusative definite appears without *-s*, while the accusative indefinite usually preserves the *-s*. Occasionally, there is a conflation between the nominative and the asigmatic accusative form (Janse, p.c.).

Gen	aḍelfu	aḍelfon	adelfoju/adelfozju	adelfozjaju
Voc	aḍelfe	aḍelfi		

However, the most striking innovation of Cappadocian, as far as the nominal inflection is concerned, is probably an indication for the emergence of an agglutinative pattern, which is also due to Turkish influence. This pattern is particularly evident in the southern varieties of Cappadocian, spoken in the towns of Ulaghats, Gurzono, Fertek, Aravan, and Semendere (see Janse forthcoming). As shown in Janse's grammatical description, for a small number of nouns of these varieties, the plural number and the genitive case are not expressed by the usual portmanteau morphemes, as in SMG and the rest of Greek dialects, but they are realized by distinct markers, which, in some cases, are added to the base, one after the other (see, for instance, (15d)). Consider again the inflection of the nouns 'eye', 'plant', 'mill', and 'brother' in both SMG (14) and Cappadocian (15). In (15) we observe that Cappadocian shows a plural nominative/accusative marker *-ja* and a distinct singular/plural genitive one *-ju*, in all nouns and inflectional paradigms. If we compare the Cappadocian nominal inflection in (15) with that of SMG in (14), we see that *-ja* and *-ju* result from a reanalysis, which has affected the Greek endings *-a* and *-u* and the stem-final vowel /i/ of the most productive paradigm of neuter nouns in *-i* (see *mati* in (14a)).<sup>31</sup> The spread of this reanalysis can be explained by the fact that in Cappadocian the neuter gender has prevailed over the masculine and feminine values, as already stated above.

Crucially, *-ja* and *-ju* are still used as fusional morphemes in some Cappadocian inflected nouns, that is as portmanteau morphemes added to a stem base, as shown by the inflection of *mat-* (15a) and the one of *fit-* (15b). However, it is important to point out that contrary to SMG, where the inflectional endings are usually combined with the stem of the base (see 14), Cappadocian *-ja* and *-ju* can be added to a full word form (see *milos* in (15c) and *adelfos* in (15d)), representing the singular nominative/accusative case, which is taken to be as a default basic form. This phenomenon reminds of the Turkish nominal inflectional paradigms, where the inflected forms are shaped on the basis of a nominative singular word form and not according to a stem form. For instance, the Turkish word for 'plants' is *bitkiler*. It is created by adding the plural ending *-ler* to the word *bitki* 'plant', which is also the form that we find in the nominative singular. On the contrary, the corresponding Greek word is *fitá*, which combines the bound stem form *fit-* with the ending *-a*.

Most importantly though, there are hints of an agglutination pattern, which is shown by the example of *adelfo(s)* in (15d). In this example, the plural marker *-ja* and the singular marker *-ju* are added to the base *adelfo(s)*, one after the other (*adelfozjaju*), suggesting that *-ju* has lost its original number value (singular), since it appears preceded by a plural marker (*-ja*), and that *-ja* has been deprived from its original nominative/accusative syncretic case values, since it is followed by the genitive marker (*-ju*). This inflectional pattern also reminds the agglutinative Turkish nominal inflection, and a simple comparison of the paradigms of both the Cappadocian and the Turkish inflectional forms for 'brother' could prove this last observation:

(16)	a. Turkish	b. Cappadocian
		Singular
	Nom kardeş	adelfo(s)
	Gen kardeşin	adelfoju/adelfozju
		Plural
	Nom kardeşler	adelfoja/adelfozja
	Gen kardeşlerin	adelfozjaju

<sup>31</sup> According to Christophidou (2003), there is evidence from the domain of language acquisition, according to which the paradigm of neuter nouns in *-i* is the most productive in MG.

Note that the same agglutination pattern does not occur in SMG and the other Greek dialects, where the feature of genitive is included either in the morpheme which expresses the singular or in the one expressing the plural, as shown in (14)). Nevertheless, in spite of the fact that (15d) proves that Cappadocian has undergone a Turkish influence, we cannot generalize that the Cappadocian nominal system has been turned into agglutinative, since the *-jaju* combination is not spread to the other paradigms. Besides, this example constitutes a very rare form, which, according to Janse (p.c.) has been detected by Sasse in his field work in early 60's. It is worth adding that a possible change of the Cappadocian nominal typology from fusion into agglutination will probably remain uncompleted, since Cappadocian speakers were forced to abandon Turkey and move to Greece following the exchange of populations between Greece and Turkey in 1923. Today, most descendants of Cappadocian refugees live in mainland Greece, and are in contact with SMG on a daily basis. Very few of them use Cappadocian in family, and Cappadocian is on the way to extinction.

## 6. Summary

In this paper, I have addressed a fundamental question regarding the relation between dialectology and morphology by showing that the study of dialects can offer a repertoire of entities, phenomena and concepts, which enrich our knowledge of morphology, and are easily adapted within a theoretical morphological framework. On the one hand, morphological theories and approaches systematize the research object, allowing us to code and analyze cross-dialectal data in a transparent way. On the other hand, dialectal research helps us to test and throw light on morphological theoretical issues. In addition, morphological research on dialectal data may determine the limits within which morphology may vary, and assist us into judging the range of cross-dialectal variation against the range of cross-linguistic variation with respect to morphology. Finally, I have contributed to the discussion that the study of dialects is intimately connected to the study of language variation and language change, since a number of grammatical features and patterns of variation found in non-standard varieties are not part of the relevant standard varieties.

Generally speaking, there are many fascinating things that can be detected in the dialects of languages, which are unknown in the relevant standard varieties, and thus overlooked in linguistic studies. The focus of the present study was on Modern Greek dialects, but there is no doubt that morphological studies could be improved if the scope of investigation was broadened to cover dialectal accounts of other languages as well. Thus, there is a rich territory for future work and collaboration between morphologists and dialectologists.

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