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# PARADIGM STRUCTURE, DEFECTIVENESS AND DERIVATIONAL PRODUCTIVITY

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## ABSTRACT

*Πολλά ουδέτερα ουσιαστικά σε -ι παρουσιάζουν ελλειπτικότητα στη γενική τόσο στον ενικό όσο και στον πληθυντικό, με γνωστότερη μεταξύ αυτών την περίπτωση των υποκοριστικών σε -άκι. Το παρόν άρθρο διερευνά την ελλειπτική κλίση των ουσιαστικών αυτών επισημαίνοντας ότι ομαδοποιούνται βάσει συγκεκριμένου χαρακτηριστικού, το οποίο και αποτελεί βάση για την προτεινόμενη ερμηνεία. Ταυτόχρονα, αξιολογούνται θεωρητικές απόψεις σχετικά με την εσωτερική δομή των κλιτικών παραδειγμάτων, τις διαφορετικές όψεις της έννοιας παραγωγικότητα (ως διαθεσιμότητας και πραγματοποιμένης παραγωγικότητας) και το ρόλο της γλωσσικής χρήσης και των ομιλητών.*

**Keywords:** inflectional paradigm, defectiveness, gaps, productivity, Modern Greek neuter nouns, derivational

## 1. Introduction

Gaps in inflectional paradigms had been treated until recently as a peripheral phenomenon in language, of little consequence to linguistic theory (Albright 2003: 2, Karlsson 2000: 647, Baerman & Corbett 2010: 2). The revived theoretical interest in the notion of paradigm, on the one hand, and an increasing number of studies analyzing different types of paradigm gaps on the other have brought about proposals to integrate the relevant phenomena into the broader picture.<sup>1</sup> In several cases defectiveness may be related systematically to language structure (see among others Hansson 1999, Albright 2003, Rice 2005, 2007, Boyé & Hofherr 2010, Lucács, Rebrus & Törkenczy 2010, Stump 2010), while studying the role of language use and of speakers' strategies (Sims 2006, Daland, Sims & Pierrehumbert 2007, Löwenadler 2010, Mithun 2010) helped us to gain a better insight into the way(s) that such deficiencies emerge.

Baerman & Corbett (2010) distinguish between three main patterns of defectiveness: one affecting the forms of a paradigm, a second affecting the functions they realize and a third concerning the ways functions and forms are mapped to each other (Baerman & Corbett 2010: 4). According to these authors the defective genitive plurals in Modern Greek (henceforth: MGr) are an example of the diachronic 'decay of a paradigm', i.e. an example "where a morphosyntactic value is itself in the process of being downgraded so that latent problems in the paradigm of some lexemes may simply no longer be worth overcoming" (Baerman & Corbett 2010: 14). The genitive gap studied in the present paper does not concern just the plural, but also the singular, and affects specific groups of Modern Greek neuter nouns ending in -ι. Furthermore, the missing forms do not involve hesitancy on the part of the speakers as regards the 'right' form of the genitive to be used, but rather unwillingness to use it. The paper is structured as follows: it starts with a reference to neuter diminutives derived by -άκι, which constitute the most known group affected by this gap, building on my previous treatment of this issue (Thomadaki 2008). Then explanations for this particular gap are reviewed, followed by a discussion of the notions paradigm structure and productivity with respect to the defective inflectional pattern under consideration. I will claim that the gap is related to the transparent derivational status of

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<sup>1</sup> Compare statements such as the following: "Gaps are a reflex of grammatical competence. **Speakers have intuitions about them, and their competence allows them to identify situations in which a paradigm will be defective** for phonological reasons. It is therefore appropriate to include treatment of gaps in a model of grammatical knowledge" (Rice 2005: 170, emphasis E.Th.).

the nouns affected and will provide more data to support my view. Finally I will conclude with an overview of the main points illustrated linking them to the productivity issue.

## 2. MGr diminutives ending in –áki and the genitive gap

Diminutives carrying the suffix –áki appear to be a well-known case of defective MGr nouns. They also constitute the most productive pattern of diminutive derivation in Modern Greek (Babiniotis 1970: 214, Daltas 1985: 69-70, Mackridge 1985: 158, Stephany 1997: 149, Thomadaki & Stephany 2007: 117). In contrast to other diminutive suffixes such as –úla (FEM), –ítsa (FEM) (examples 1) or –úlis, –ákos, (both masculine, examples 2) requiring feminine or masculine bases respectively, no such constraint holds for the neuter suffix –áki (examples 3).

- |                  |                    |                                  |
|------------------|--------------------|----------------------------------|
| (1) domata (FEM) | domat-úla          | ‘small tomato’                   |
| bala (FEM)       | bal-ítsa           | ‘small ball’                     |
| (2) papus (MASC) | pap-úlis           | ‘dear grandpa’                   |
| anthropos (MASC) | anthrop-ákos       | ‘poor little man’                |
| (3) domata (FEM) | domat-áki (NEUT)   | ‘special kind of small tomatoes’ |
| anthropos (MASC) | anthrop-áki (NEUT) | ‘miserable little man’           |
| trapezi (NEUT)   | trapez-áki (NEUT)  | ‘small table’                    |

Diminutives derived by the suffixes –áki, –úla and –ítsa miss their genitive plural forms. In addition, those suffixed by –áki also miss their singular genitive form as the examples in Table 1 (e.g. trapezáki ‘table:DIM’, domatúla ‘tomato:DIM’, balítsa ‘ball:DIM’) show.<sup>2</sup> The starred forms represent the possible realization of the missing forms in each case.

	Diminutives derived by –áki	Diminutives derived by –úla	Diminutives derived by –ítsa
NOM./ACC.SG	trapezáki	domatúla	balítsa
GEN.SG	*trapezakjú	domatúlas	balítsas
NOM./ACC.PL	trapezákja	domatúles	balítses
GEN.PL	*trapezakjón	*domatúlon/*domatúlon	*balítsón/*balítsón

Table 1 Defective diminutives

No gap is attested in the paradigm of diminutives formed by other suffixes such as –íðio (e.g. kratíðio ‘small state:NEUT’) or –úlis (e.g. paterúlis ‘dear father:MASC’) (Table 2).

	Diminutives derived by –íðio	Diminutives derived by –úlis
NOM.SG	kratíðio	paterúlis
GEN.SG	kratíðiu	paterúli
ACC.SG	kratíðio	paterúli
NOM.PL	kratíðia	paterúliðes
GEN.PL	kratíðion	paterúliðon
ACC.PL	kratíðia	paterúliðes

Table 2 Non defective diminutives

Furthermore, diminutives suffixed by –áki that have acquired an idiosyncratic meaning, such as suvláki ‘souvlaki’ (from suvla ‘spit’), sakáki ‘jacket’ (from sakos ‘sack’), plakáki ‘tile’ (from plaka ‘slab’), and loanwords, such as sokáki ‘backstreet’ (< Turkish sokak) are fully inflected (Table 3).<sup>3</sup> In contrast, the reanalysis of the loanwords pasumáki ‘slipper’ (< Turkish pasmak) and tsarðáki ‘hut, home’ (< Turkish çardak) as diminutives suffixed by –áki has resulted to defective inflection (Table 3).

<sup>2</sup> The same defective pattern applies to neuter diminutive adjectives and nouns derived by –úli (e.g. mikrúli ‘small:NEUT’ (< mikró), perioðikúli ‘magazine:DIM’ (< perioðikó) and those derived by –éli (e.g. moruðéli < morúði ‘baby:DIM’ < moró ‘baby’).

<sup>3</sup> Non-defective lexicalised diminutives carrying the suffix –áki (such as sakáki) should be distinguished from examples such as jeráki ‘hawk’, avláki ‘ditch’, vamváki ‘cotton’, mustáki ‘moustache’. The latter are lexicalised diminutives too, but they carry the suffix –i(on), similarly to other neuter nouns ending in –i (compare: 1. jeráki < ierák-ion < ierák-s ‘hawk’ and 2. molivi < molyv-ion < molubdos ‘lead’). They are, of course, not defective, similarly to non derived neuters such as skáki ‘chess’, spanáki ‘spinach’.

	non defective diminutive	Loanword ending in –áki	
		Reanalyzed as diminutive	no reanalysis
NOM./ACC.SG	suvláki	pasumáki	sokáki
GEN.SG	suvlakjú	*pasumakjú	sokakjú
NOM./ACC.PL	suvlákja	pasumákja	sokákja
GEN.PL	suvlakjón	*pasumakjón	sokakjón

**Table 3** Comparing non defective lexicalised diminutive and loanwords

A lexicalized, and hence fully inflected, neuter diminutive (e.g. suvlaki) follows the pattern of neuter nouns ending in –i, exemplified by the noun molívi ‘pencil’ in Table 4.

NOM./ACC.SG	molívi
GEN.SG	molivjú
NOM./ACC.PL	molívja
GEN.PL	molivjón

**Table 4** Inflection of neuter nouns ending in –i

Since the missing genitive forms of defective diminutives ending in –áki could be ‘recovered’ according to this pattern (see Table 1), it follows that diminutives ending in –áki exhibit potentially the same pattern too. Thus, they represent a subgroup within neuter nouns ending in –i.

The recoverability of the missing genitive form of a diminutive ending in –áki is demonstrated by occasional examples attested in texts of lower/ everyday style such as 4 and 5 (source: Corpus of Greek Texts (<http://sek.edu.gr/>), Goutsos 2010).

- (4) (a) Vunakjú ‘Vunaki:GEN.SG’  
 (b) Monastirakjú ‘Monastiraki:GEN.SG’  
 (5) (a) korðelakjón ‘ribbon:DIM:GEN.PL’<sup>4</sup>  
 (b) γερανakjón ‘hoist:DIM:GEN.PL’<sup>5</sup>

Therefore, the gap results from speakers’ tendency to avoid the relevant genitive forms rather than from a genuine inability to form them. Grammar books referring to the defective inflection of these neuter nouns attempt to record this avoidance behavior.

Speakers use a number of strategies to compensate for the defective genitive under consideration. They may resort to either the genitive form of the base (i.e. non diminutive) noun (e.g. tu trapezjú ‘ART:GEN table:GEN’) or to a periphrastic expression (e.g. apo to trapezáki ‘of the table:DIM:ACC’). Further, a high-style genitive form (examples in 6) may typically be used in expressions containing place names ending in –áki.

- (6) Platia Kolonakíu ‘Kolonaki:GEN square’  
 Nero Lutrakíu ‘Lutraki:GEN table water’  
 Dimos Tibakíu/Muzakíu ‘municipality of Tibaki/ Muzaki:GEN’  
 Stena Dervenakíon ‘Dervenakia:GEN pass’

The genitive forms in (6) conform to the inflectional pattern of neuter nouns ending in –o, exemplified in Table 5 by the noun klimákio ‘group (of a larger party)’.<sup>6</sup>

NOM./ACC.SG	klimákio
GEN.SG	klimakíu
NOM./ACC.PL	klimákia
GEN.PL	klimakíon

**Table 5** Inflection of neuter nouns ending in –o

<sup>4</sup> The form occurs in the text of a recipe: *Διπλώνομε την κρούστα [...]. Την κόβομε σε σχήματα κορδελλακιών* ... ‘We fold the crust [...]. We cut ribbon-like strips.’ (source: CGT, translation E.Th.).

<sup>5</sup> The form occurs in a magazine article: *Επίσης ο ΟΓΑ διέκοψε τη χορήγηση των ανυψωτικών συστημάτων, των γνωστών "γερανakiών", πιθανώς επειδή δεν χρειάζεται τους ασφαλισμένους με τετραπληγία* ‘Also, OGA has suspended supplies of lifting machinery, the so called ‘geranakja’, to insured quadriplegic persons, probably because these persons are not needed’ (source: CGT, translation E.Th.).

<sup>6</sup> It seems that the alternative genitive forms in (6) constitute an instance of heteroclisia (Stump 2006), an issue which will not be pursued further here.

In sum, the genitive gap under consideration has the following features:

- it affects systematically both genitive singular and plural
- it is possible to ‘recover’ the missing forms
- it affects consistently only transparent diminutives.

In order to understand why this is so, further groups of defective neuter nouns ending in –i shall be introduced in section 5 after referring to possible explanations for the genitive gap found in the relevant literature (section 3) followed by a discussion relating defectiveness to paradigm structure and productivity.

### 3. Possible explanations for the genitive gap

Since the gap is most prominent in diminutives ending in –áki, it was originally discussed with regard to the question whether defectiveness is directly tied to the semantic (or pragmatic) feature DIMINUTIVE (Triandafyllidis 1963, see also Thomadaki 2008). As suggested by Triandafyllidis (1963: 146, 149), the discourse functions of a diminutive, i.e. its usual syntactic slots, tend to ‘discourage’ the use of a genitive form, thereby contributing to the emergence of the gap. However, Triandafyllidis (1963: 150) finally dismisses this explanation arguing that some types of diminutives do occur in genitive forms (compare the examples: *tis varkúlas* ‘ART:GEN boat:DIM:GEN’, *tis γatítsas* ‘ART:GEN cat:DIM:GEN’ in Triandafyllidis (1963: 150), see also Tables 1 and 2 above). Instead, Triandafyllidis (1963: 150) opts for an explanation based on the diachronic pressure for elimination of synthetic case forms, which is reinforced by the tendency to preserve formal stability within inflectional noun paradigms on the dimensions of stem shape and of stress. Due to this tendency marginal forms such as *tu Rináki* ‘ART:GEN Rinaki’ emerge in certain contexts according to Triandafyllidis (1963: 154-156, 157-158),<sup>7</sup> who consequently focuses on the formal means taking over the function of the avoided genitive rather than to the gap itself. Nevertheless, it remains unclear how the specific genitive gap under discussion could have resulted from the interaction of factors guiding the restructuring of MGr inflection in general. Moreover, the diachronic pressure leading to the elimination of synthetic case forms is too broad an explanation to account for the particular features of this gap.

As far as stress is concerned, it must be noted that both the singular and plural genitive forms of neuter nouns ending in –i bear obligatory stress on the last syllable, so that the genitive diverges from the stress pattern of the nominative/accusative. According to Drachmann & Malikouti-Drachmann (1999: 907) this pattern of stress shift represents an irregular (opaque) stress pattern, tending to leveling. However, the assumption that the gap is caused by the obligatory stress shift is far from convincing as long as it does not offer a substantiated answer to the question why only diminutives ending in –áki are targeted by the gap and not the entire class of nouns ending in –i (or other classes of nouns shifting their stress onto the last syllable in genitive).

More recently Sims (2006: 121) defined the role played by stress shift in the avoidance of genitive forms in MGr nouns not as a consequence of stress variation per se, but rather as an issue relating to the predictability of stress placement. According to her description, the implicational relations between the paradigm cells of MGr noun inflectional classes, extending on both the dimension of case formatives and of stress patterns, build a multidimensional inheritance hierarchy (Sims 2006: 102), which allows the identification of paradigm cells qualifying for a gap. She argues that an overwhelming 98% of the genitive plural gaps cluster with certain inflection classes of feminine and masculine nouns (e.g. *níki* ‘victory’, *óra* ‘hour’, *mitéra* ‘mother’, *turístas* ‘tourist’, *náftis* ‘sailor’, *patéras* ‘father’). The genitive plural of these nouns can be associated either with stress shift (obligatory stress on the last syllable) or with a (more or less) columnar stress pattern. For instance, in the genitive plural of the noun *petalúða* ‘butterfly’ there would be a choice between a form stressed on the ultimate syllable (*petalúðón*), parallel to the noun *óra* ‘hour’ (GEN.PL *orón*), and a form stressed on the penultimate (*petalúðon*), parallel to the noun *mitéra* ‘mother’ (GEN.PL *mitéron*). Through experiments testing the interaction between stress type and lemma frequency as well as subjects’ confidence about the production of the required genitive plural form, Sims shows that competing stress patterns do not directly activate the paradigmatic gap. Nevertheless, competing stress patterns in combination with low frequency create

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<sup>7</sup> The expression consists of a genitive article form followed by the NOM/ACC form of the neuter hypocoristic noun *Rináki* (derived by truncation and subsequent suffixation from the female name *Irini* ‘Irene’). The few examples of this aberrant construction cited by Triandafyllidis’ (1963: 151-2) are drawn mainly from dialects.

uncertainty about the form of the synthetic genitive plural, thus speakers tend to avoid it in favor of the periphrastic prepositional phrase (Sims 2006: 100).

However, Sims's account pertains to genitive plural gaps in feminine diminutives derived by the suffixes *-úla* or *-ítsa*, not to the gap in neuter diminutives ending in *-áki*.<sup>8</sup> In fact she admits that it is unclear why a gap exists in this latter case (Sims 2006: 72, fn. 49), given that the genitive plural of nouns ending in *-i* (and by the same token that of diminutives ending in *-áki*) is always predictable from the genitive singular. Nevertheless, by employing the notion of paradigm structure as a necessary element for the explanation of MGr gaps (Sims 2006: 120), her analysis offers a plausible description of the interdependence between the genitive singular and plural in nouns ending in *-i*.<sup>9</sup> Further, her analysis correctly integrates stress patterns into MGr paradigm structure, thereby relating the genitive plural gap she analyses not to stress shift but to competing stress patterns.

The claim that paradigms have internal structure and that inflectional forms stand in relation to each other, thereby following predictable patterns, offers a sound basis for the discussion of gaps.<sup>10</sup> Gaps are detected by comparing a particular lexeme to other lexemes, all of which are expected to obey the same inflectional pattern. Contrary to the expectations created by the relevant paradigmatic pattern, defective items lack some form(s). Thus, reference to the notion of paradigm structure is necessary in order to understand and explain the gap discussed here.

Stating that diminutives ending in *-áki* lack their genitive forms means that we recognize that this particular subgroup fails to obey a valid inflectional pattern, which is realized by other nouns of the same group, e.g. by lexicalized diminutives ending in *-áki* (e.g. *sakáki*, *sokáki* etc.) and by nouns ending in *-i* (e.g. *kutí* 'box', *xéri* 'hand' etc.). Given that diminutives ending in *-áki* constitute a subset of the neuter nouns ending in *-i*, it follows that their potential genitive forms would look like the relevant inflectional forms of these nouns (e.g. *peđáki*: *peđakjú*: *peđakjón* parallel to *peđí*: *peđjú*: *peđjón*), in the same way that their nominative/accusative plural form (e.g. *peđákja*) parallels the relevant form of nouns ending in *-i* (e.g. *peđjá*). In addition, the strong interdependence between the genitive singular and genitive plural of these nouns, expressed mainly through the obligatory stress shift on the last syllable, could explain why the gap affects uniformly the genitive singular and genitive plural in the case of diminutives ending in *-áki*.

Diminutives derived by *-áki* are not really different from non-defective neuter nouns ending in *-i* as far as their paradigmatic pattern is concerned. Their genitive forms are not impossible on strictly semantic, phonological or morphological grounds, but rather unacceptable. Speakers avoid their use, thereby signaling some kind of information specific to the particular group.

In a previous attempt to consider the role of linguistic use, I focused on differences in the frequency of occurrence of each grammatical form in an inflectional paradigm (Thomadaki 2008: 134-137). It is well known that frequency of use may determine the 'lexical strength' of a form within a paradigm (Bybee 1985; 1991: 70, 78; 2001: 113-116), which may lead to a resistance to regularization. As far as the genitive gap under discussion is concerned I have claimed in Thomadaki (2008) that the overall low token frequency of genitive forms in corpora of MGr discourse and the high productivity of diminutives suffixed by *-áki* combine to cause the rejection of the genitive forms. The high productivity of the pattern deriving these diminutives sets them apart from other neuter nouns ending in *-i*. Speakers tend to 'interpret' the rare possibility of encountering genitive forms of a diminutive as a regular 'gap' for this clearly delimited group of nouns.

#### 4. Productivity as profitability

Bauer (2001: 213) considers 'productivity' to be ambiguous between 'availability' and 'profitability'. While availability is "a yes/no matter", profitability is "a matter of degree" and it can be measured. That is possible words are not all equally probable, due to the complex interaction of the constraints imposed upon each type of formation in a particular language (Bauer 2001: 207). According to Bauer (2001: 209-210) "availability is a matter of what the language system determines; profitability is a matter which is determined by language norms". Bauer's distinction is easily and naturally interpreted, as far as derivation is concerned, it can, however, be usefully extended to inflection: in effect, any kind

<sup>8</sup> Thus it is important to distinguish between the two cases, as Thomadaki (2008: 131) also noticed.

<sup>9</sup> According to Sims (2006: 118), their interdependence can be formulated as an implicational relation from the gen.sg to the gen.pl. Adopting a different theoretical framework Thomadaki (1994) also maintained that these two paradigm cells are interdependent.

<sup>10</sup> "Defectivity is intimately tied to the notion of inflectional paradigm" according to Karlsson (2000: 647).

of morphological process may be less than fully productive (see Jackendoff (1997: 121), cited in Bauer (2001: 17), Dressler (2003) on ‘grammatical productivity’).<sup>11</sup>

The distinction between availability and profitability seems suitable for the description of the status of the missing genitive forms under consideration. Although genitive forms are available for every neuter noun ending in *-i*, i.e. they constitute possible (or potential) words, the profitability of the relevant inflectional pattern (its utilization in terms of actual use) is extremely low in the case of diminutives ending in *-áki*. Given that such a diminutive could be derived from almost every noun, the low profitability trend concerning their genitive forms becomes more robust with every new member of the group (Thomadaki 2008). In essence, the genitive gap in diminutives ending in *-áki* exists in terms of profitability, not of availability. Thus, the distinction between availability and profitability is compatible both with the avoidance of the genitive forms, as well as with their occasional attestation.

Diminutives suffixed by *-áki* constitute a productive derivational pattern and since the gap applies consistently to items being assigned derivationally to this pattern, one could conclude that speakers take into account the derivational status of a diminutive noun in *-i* in order to decide whether it lacks its genitive forms or not. If a lexeme loses its derivational status (i.e. no diminutive meaning is present), the (available) genitive forms become acceptable. Therefore, it is the assignment of derivational status as such that sets apart a diminutive from a non defective neuter ending in *-i*. Note that this assumption is compatible with the view that the diminutive meaning cannot explain the gap adequately.

Insofar as the ‘derivational status’ of *-áki* diminutives builds a kind of restriction rendering the relevant nouns incompatible with the full inflectional pattern, it reflects the way language use leads to generalizations about groups of lexical items concerning their inflection. In other words, inflectional patterns are obligatory and general, hence highly productive, but they do not apply blindly to the respective groups of inflected lexemes, because their profitability depends on the interaction of various factors. In the case of neuter nouns ending in *-i* profitability depends on ‘derivational status’.

## 5. The impact of derivation

The various groups of derived and simple neuter nouns ending in *-i* cannot be treated as a homogeneous class as far as inflection is concerned, for the reason that almost 2/3 of them do not display the fully fledged pattern exemplified by the noun *molívi* ‘pencil’ in Table 5.<sup>12</sup> The genitive gap under consideration affects compounds (examples 7a-e), backformations from verbs (example in 8) and derivations suffixed by *-íði* (9a) and *-(il)íki* (9b), besides the diminutives discussed so far.

(7) (a)	<i>papaðopéði</i>	* <i>papaðopeðjú</i>	* <i>papaðopeðjón</i>	‘a priest’s child’
(b)	<i>kafekúti</i>	* <i>kafekutjú</i>	* <i>kafekutjón</i>	‘coffee jar’
(c)	<i>karðioxtípi</i>	* <i>karðioxtipjú</i>	* <i>karðioxtipjón</i>	‘heartbeat’
(d)	<i>korfovúni</i>	* <i>korfovunjú</i>	* <i>korfovunjón</i>	‘mountaintop’
(e)	<i>sixoroxárti</i>	* <i>sixoroxartjú</i>	* <i>sixoroxartjón</i>	‘lit. forgive-paper, indulgence’
(8) (a)	<i>zívi</i>	* <i>ziǵjú</i>	* <i>ziǵjón</i>	‘weighing’ (from <i>ziǵizo</i> ‘weigh’)
(b)	<i>kolíbi</i>	* <i>kolibjú</i>	* <i>kolibjón</i>	‘swimming’ (from <i>kolibáo</i> ‘swim’)
(9) (a)	<i>kanoníði</i>	* <i>kanoniðjú</i>	* <i>kanoniðjón</i>	‘cannon fire, shelling’
(b)	<i>proeðrilíki</i>	* <i>proeðrilikjú</i>	* <i>proeðrilikjón</i>	‘presidency (derog.)’

<sup>11</sup> Using the term ‘grammatical productivity’ Dressler (2003) “posit[s] the notion of productivity on the level of the potential system of grammar” (Dressler 2003: 34), and acknowledges degrees of productivity for inflection (Dressler 2003: 44).

<sup>12</sup> It is indicative of the diversification within the class that out of the approximately 2650 neuter nouns ending in *-i* listed in Kourmoulis’ Reverse Dictionary (1967/2002) ca. 800 are fully inflected.

Although nouns such as these exemplified above, resulting from derivational or compounding processes, are formally parallel to simple neuter nouns carrying the final *-i* such *peði* ‘child’ or *xéri* ‘hand’ they do not display the full inflectional pattern. Note that the genitive gap appears even if a non-defective simple noun appears as the right constituent of the compound (compare 7a, b and e with the fully inflected simple nouns *peði* ‘child’ (gen.sg: *peðjú/* gen.pl: *peðjón*), *kutí* ‘box’ *kutjú/kutjón*, *xartí* ‘paper’ *xartjú/xartjón*). This means that the respective constituents of the compound do not retain the inflectional properties of the simple nouns.<sup>13</sup>

In contrast to the examples quoted in (7) through (9), certain compounds or derivations with similar morphological structure are not defective (see examples 10 and 11). An explanation which comes to mind is that the latter compounds or derivations are lexicalized and have accordingly lost their semantic transparency. Thus *kalokéri* does not mean ‘good weather’, but rather ‘summer’, neither is *skupíði* ‘rubbish’ automatically related to *skúpa* ‘broom’ or *skupízo* ‘sweep’. Similarly a lexicalized diminutive such as *suvláki* is non-transparent and must be paraphrased as ‘meat prepared on a skewer’ rather than ‘small skewer’. Lexicalization, however, seems to be inadequate as an explanation for the fully inflected examples in (11a) and (11b). Neither the backformation *kiníyi* (11a, from the verb *kiníyó*), nor the derivation *armatolíki* (11b, from *armatolós* ‘armed Greek during the Ottoman era’) may be considered as more lexicalized than the backformations in (8) or the derivation in (9b). However, the fully inflected *kiníyi* can be traced back to an older form *kiníyion* (gen.sg. *kiníyíu*, gen.pl. *kiníyion*), rendered as *kiníyi*, *kiníyjú*, *kiníyjón* in Demotic or MGr, while the defective noun *kolíbi* constitutes a more recent derivation. The same is true of *proeðrilíki* (9b) as compared to *armatolíki* (11b).

(10)(a)	<i>kalo-kéri</i> good-weather	<i>kalokerjú</i>	<i>kalokerjón</i>	‘summer’
(b)	<i>mesi-méri</i> middle-day	<i>mesimerjú,</i>	<i>mesimerjón</i>	‘noon’
(c)	<i>pano-fóri</i> over-wear	<i>panoforjú</i>	<i>panoforjón</i>	‘overcoat’
(11)(a)	<i>kiníyi</i>	<i>kiníyjú</i>	<i>kiníyjón</i>	‘hunting’
(b)	<i>armatolíki</i> armatolós’	<i>armatolíkjú</i>	<i>armatolíkjón</i>	‘region controlled by’
(c)	<i>skupíði</i>	<i>skupíðjú</i>	<i>skupíðjón</i>	‘rubbish, trash’

From the data presented thus far it follows that the genitive gap affects not only diminutives but also other types of derived or compound neuter nouns ending in *-i*, while simple (i.e. non derived) nouns ending in *-i* display the fully-fledged pattern. Also, lexicalization or frequency of use results in activating the full inflectional pattern in the case of a derived or compound lexical item. In other words, derivational transparency seems to trigger the genitive gap. Since transparency is a matter of degree (i.e. it reflects linguistic use), the more transparent the derivational character of a neuter noun ending in *-i* is, the more likely it is to be affected by the gap. This view allows a more realistic and usage-orientated insight as to how the genitive gap under consideration works. At the same time it does not contradict the view that the fully-fledged inflectional pattern is available for all neuter nouns ending in *-i*.

Furthermore, the inflectional forms of diminutives, compounds and other derived neuter nouns in *-i* (e.g. forms such as *peðaki* ‘small child:SING’ – *peðakja* ‘small child:PL’) appear to realize just an opposition of singular vs. plural.<sup>14</sup> Nevertheless, they can be assigned case properties too (i.e. *peðaki* ‘small child:NOM/ACC.SING’ – *peðakja* ‘small child:NOM.ACC.PL’) through their association to the fully-fledged inflectional pattern valid for the wider class of neuter nouns in *-i*.

The availability of this fully-fledged inflectional pattern also manifests itself in the way that loanwords of Turkish origin become morphologically assimilated into MGr inflection. While the nouns in (12) are incompletely integrated into the pattern of neuter nouns ending in *-i*, only exhibiting a number distinction, those in (13) have also developed genitive forms.

<sup>13</sup> It is preferable to analyze the final *-i* as a formal marker of the compound stem than as part of the second compound constituent (as Ralli 2007: 177 proposes). The former analysis relates the presence the final *-i* more directly to the inflectional pattern of the noun.

<sup>14</sup> See Thomadaki & Stephany 2007 on child language data concerning this issue.

- (12)(a) áti – átja - \*atjú - \*atjón ‘horse’  
 (b) zóri – zórja – \*zorjú - \*zorjón ‘difficulty’  
 (13)(a) γλένδι- γλένδju- γλένδja – γλένδjon ‘fun, feast’  
 (b) réli- reljú – rélja – reljón ‘hem’

Of course, in the case of loanwords, it is meaningless to speak of a ‘defective’ inflectional pattern, since loanwords fall by default outside the inflectional system of the recipient language, in contrast to native lexical items, and their integration into this system proceeds analogically and item-wise. But as in the case of defective neuter nouns discussed here, the profitability of the available inflectional pattern is dependent upon linguistic use.

## 6. Summarizing – Further questions

The genitive gap affecting groups of neuter nouns ending in –i (diminutives, derivations, compounds) discussed in this article revealed some important aspects related to inflectional defectiveness:

- The gap affects in tandem genitive singular and plural, so it is different from other instances of genitive gap referred to for MGr. The relatedness between the singular and the plural genitive form claimed to be an intrinsic feature of the inflectional pattern of neuter nouns ending in –i (Sims 2006) helps to explain why this cannot be a coincidence.
- The gap results from a strong preference on the part of the speakers to avoid the genitive forms rather than of the speakers’ genuine inability to form them, since such forms are occasionally attested. The gap affects subgroups of nouns within a wider non defective inflectional class.
- It has been argued that the speakers’ avoidance of genitive forms depends on whether the relevant neuter nouns ending in –i have a transparently derivational status or not. Lexicalized nouns of the subgroups do not show any gap.
- The latter testifies to the availability of the fully-fledged inflectional paradigm, realized by non defective neuter nouns ending in –i, and furthermore it points to the speakers’ ability to relate defective subgroups to this pattern.
- The fact that the genitive gap heavily depends on usage and the profitability of the inflectional paradigm is limited as far as genitive forms are concerned show that inflectional patterns are not a priori ‘productive’, but constitute a matrix into which nouns may possibly fit.

A question arising from the discussion above is the following. Why should exclusively neuter nouns in –i become affected by this specific type of defectiveness, which depends, as argued above, on whether a respective noun has a transparently ‘derivational status’ or not? An answer to this question may require a closer look at the structure of inflectional paradigms of MGr nouns in general, taking also into account the use of alternative genitive forms such as tu Kolonakiú (see examples 6 above), which possibly involve heteroclisis. Moreover, the proposed explanation raises questions about the lexical storage of inflected words, since speakers are able to discern which neuter nouns in –i are defective and which are not.

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## References

- Albright, Adam. 2003. “A Quantitative Study of Spanish Paradigm Gaps”. In *Proceedings of the 22<sup>nd</sup> West Coast Conference on Formal Linguistics* edited by Gina Garding & Mimu Tsujimura, 1-14. Somerville, MA: Cascadilla Press.
- Babinotis, Georgios, 1970. “Pleurai tu ‘met’ epithimatos’ ypokorismu tis ellinikis”. *Athena* 71, 194-235.
- Baerman, Matthew & Corbett, Greville G. 2010. Introduction: Defectiveness: Typology and Diachrony. In *Defective Paradigms. Missing forms and what they tell us* (Proceedings of the British Academy, 163) edited by Matthew Baerman, Greville G. Corbett & Dunstan Brown, 1-18. Oxford: O.U.P.
- Bauer, Laurie. 2001. *Morphological Productivity*. Oxford: O.U.P.
- Boyé, Gilles & Hofherr Cabredo, Patricia 2010. “Defectiveness as Stem Suppletion in French and Spanish verbs”. In *Defective Paradigms. Missing forms and what they tell us* (Proceedings of the British Academy, 163) edited by Matthew Baerman, Greville G. Corbett & Dunstan Brown, 35-52. Oxford: O.U.P.
- Bybee, Joan. 1985. *Morphology: a study of the relation between meaning and form*. Amsterdam: John Benjamins.

- Bybee, Joan. 1991. "Natural morphology: the organization of paradigms and language acquisition". In *Crosscurrents in second language acquisition and linguistic theories* edited by Thom Huebner & Charles A. Ferguson, 67-91. Amsterdam/Philadelphia: J. Benjamins.
- Bybee, Joan. 2001. *Phonology and Language use*. Cambridge: C.U.P.
- Daland, Robert, Sims, Andrea D. & Pierrehumbert, Janet. 2007. "Much ado about nothing: A social network model of Russian paradigmatic gaps". In *Proceedings of the 45th Annual meeting of the Association for Computational Linguistics in Prague*, 936-943. <http://acl.ldc.upenn.edu/P/P07/P07-1118.pdf>, accessed July 19, 2012.
- Daltas, Periklis. 1985. "Some patterns of variability in the use of diminutive and augmentative suffixes in spoken Modern Greek koine". *Glossologia* 4, 63-88.
- Dressler, Wolfgang U. 2003. "Degrees of grammatical productivity in inflectional morphology". *Rivista di Linguistica* 15/1, 31-62.
- Goutsos, Dionysis. 2010. "The Corpus of Greek Texts: A reference corpus for Modern Greek". *Corpora* 5(1), 29-44.
- Hansson, Gunnar Ó. 1999. "'When in Doubt...': Intraparadigmatic Dependencies and Gaps in Icelandic". In *Proceedings of NELS 29* edited by P. Tamanji, M. Hirotani, & N. Hall, 105-119. Amherst, MA: GLSA Publications.
- Jackendoff, Ray. 1997. *The architecture of the Language Faculty*. Cambridge, MA & London: MIT Press.
- Karlsson, Fred. 2000. "Defectivity". In: *Morphology (An International Handbook on Inflection and Word-Formation)* (Vol. 1) edited by Geert Booij, Christian Lehmann & Joachim Mugdan in collaboration with Wolfgang Kesselheim & Stavros Skopeteas, 647-654. Berlin/New York: W. de Gruyter.
- Kourmoulis, Georgios I. 1967. *Andistrofon Lexicon tis Neas Ellinikis*. (2<sup>nd</sup> edition 2002). Athina: Papadimas.
- Löwenadler, John. 2010. "Relative Acceptability of Missing Adjective Forms in Swedish". In *Defective Paradigms. Missing forms and what they tell us* (Proceedings of the British Academy, 163) edited by Matthew Baerman, Greville G. Corbett & Dunstan Brown, pp. 69-84. Oxford: O.U.P.
- Lucács, Ágnes, Rebrus, Péter & Törkenczy, Miklós. 2010. "Defective Verbal Paradigms in Hungarian – Description and experimental study". In *Defective Paradigms. Missing forms and what they tell us* (Proceedings of the British Academy, 163) edited by Matthew Baerman, Greville G. Corbett & Dunstan Brown, 85-102. Oxford: O.U.P.
- Mackridge, Peter. 1985. *The Modern Greek Language*. Oxford: O.U.P.
- Malikouti-Drachmann, Angeliki & Drachmann, Gaberell. 1999. "Greek word accent". In *Word Prosodic Systems in the Languages of Europe* edited by Harry van der Hulst, 897-945. Berlin: Mouton de Gruyter.
- Mithun, Marianne. 2010. The search for Regularity in Irregularity: Defectiveness and its Implications for our Knowledge of Words. In *Defective Paradigms: Missing forms and what they tell us* (Proceedings of the British Academy, 163) edited by Matthew Baerman, Greville G. Corbett & Dunstan Brown, 125-150. Oxford: O.U.P.
- Ralli, Angeliki. 2007. *I synthesi lekseon*. Athina:Patakis.
- Rice, Curt. 2007. "Gaps and repairs at the phonology-morphology interface". *Journal of Linguistics* 43, 197-221.
- Rice, Curt. 2005. "Optimal gaps in optimal paradigms". *Catalan Journal of Linguistics* 4 [Special issue, *Morphology in phonology*, edited by Maria-Rosa Lloret & Jesús Jiménez], 155–170.
- Sims, Andrea. 2006. *Minding the gaps: Inflectional defectiveness in paradigmatic morphology*. Ph.D. thesis: Linguistics Department, The Ohio State University.
- Stephany, Ursula. 1997. "Diminutives in early child Greek, a preliminary investigation". In *Studies in Pre- and Protomorphology* edited by Wolfgang U. Dressler, 147-156. Wien: Verlag der Österreichischen Akademie der Wissenschaften.
- Stump, Gregory. 2006. "Heteroclysis and paradigm linkage". *Language* 82/2, 279-322.
- Stump, Gregory. 2010. "Interactions between Defectiveness and Syncretism". In *Defective Paradigms. Missing forms and what they tell us* (Proceedings of the British Academy, 163) edited by Matthew Baerman, Greville G. Corbett & Dunstan Brown, 181-210. Oxford: O.U.P.
- Thomadaki, Evangelia. 1994. *Morfologika provlimata tis neoellinikis: I klisi tou ousiastikou*. Ph.D. Diss. Athens: Panepistimio Athinon.
- Thomadaki, Evangelia. 2008. "Elleiptika paradeigmata kai syxnotita: I periptosi ton ypokoristikon". In: *Glossis xarin* edited by Amalia Mozer, Aikaterini Mpakakou-Orfanou, Christoforos Xaralampakis & Despoina Xeila-Markopoulou, 129-140. Athina: Ellinika Grammata.
- Thomadaki, Evangelia & Stephany, Ursula. 2007. "Diminutives in Greek child language". In *The Acquisition of Diminutives* edited by Wolfgang U. Dressler & Ineta Savickienė, 89-123. Amsterdam/Philadelphia: J. Benjamins.
- Triandafyllidis, Manolis. 1963 (=1926). "I geniki ton ypokoristikon se –aki kai to neoelliniko klitiko systema". In *Apanda Manoli Triandafyllidi: Erevnitika B* (2nd volume), 141-171. Thessaloniki: I.N.S., Aristoteleion University of Thessaloniki.