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The analysis and teaching of Gender in Greek nouns[1]

ABSTRACT

This paper includes a schematic presentation of the factors responsible for gender assignment, before dwelling at some length on the issue of gender distribution in nouns over the animate-inanimate spectrum, taking into account Corbett's (1990) distinction into semantic and formal assignment systems. Next, the thorny subject of the gender carrier and an evaluation of the different approaches to it are offered, namely, whether gender belongs to the stem or the suffix (derivational, inflectional) and how it is represented (i.e. the gender feature). Finally, syntactic agreement with reference to gender will be addressed. The theoretical orientation is morphological rather than etymological/ semantic, phonological or syntactic. The linguistic approach favoured, is the lexicalist theory within Generative Grammar, in the footsteps of Lieber (1980).

1. Introduction

The main purpose of this paper is the description and analysis of Gender in Modern Greek nouns and the exploration of the implications of the lexicalist framework in a teaching situation. Gender is by far the most intriguing grammatical category a language might have. Linguists haven't yet found a universal definition for it, although a variety of descriptions have seen the light of day, including some based on the distinction between sexes, as well as animate/inanimate and human/non-human distinctions (these are all set ou in the following paragraphs). Still, the only approach that seems to cover most of the phenomena related to gender, is agreement, which points to its syntactic dimension; nonetheless, in many inflectional as well as some agglutinating languages, it is a morphological category. Such is the case of Modern Greek (MG), as is illustrated in this article.

Interest in gender stems from various preoccupations, including studies on linguistic capacity and performance, as well as computer-oriented linguistic studies such as Machine Translation and Natural Language Processing. Furthermore, to date, no research has been done on Gender in MG within the framework of a prominent linguistic theory, which also includes a full-scale description of the phenomenon. Moreover, a paper on Greek Gender serves the dual purpose of:

1. This paper is based on the research undertaken by the author for her D. Litt. et Phil. dissertation under the supervision of professors B. Hendricks and JLP Wolmarans, Department of Greek and Latin Studies, and prof. AE Coetzee, Afrikaans Department, RAU.

1) Offering teachers of Modern Greek an in-depth account of the function of gender in the language, which should enhance their knowledge and, in consequence, their ability to teach Greek Morphology and Syntax, as well as facilitate their task, by allowing access to a comprehensive linguistic methodology.

2) Offering lecturers of Linguistics and Modern Languages a well-documented example of how the generative lexical theory works at the level of Morphology, that could also be used in language studies as a teaching tool of gender, as well as Morphology in general, of languages other than Modern Greek (by substituting the facts of Greek Gender in the framework proposed in this paper by those of the language of interest and evaluating the results).

The layout of this paper includes a schematic presentation of the factors responsible for gender assignment, before dwelling at some length on the issue of gender distribution in nouns over the animate-inanimate spectrum, taking into account Corbett's (1990) distinction into semantic and formal assignment systems. Next, the thorny subject of the gender carrier and an evaluation of the different approaches to it are offered, namely, whether gender belongs to the stem or the suffix (derivational, inflectional) and how it is represented (i.e. the gender feature). Finally, syntactic agreement with reference to gender will be addressed. The theoretical orientation is morphological rather than etymological/semantic, phonological or syntactic. The linguistic approach favoured, is the lexicalist theory within Generative Grammar, in the footsteps of Lieber (1980).

2. Gender assignment

Gender assignment to MG nouns may be the result of diverse factors (quite often more than one). Ancient myth and religion may explain gender choice in some nouns such as /uranos/ 'sky, Uranus' and /ɣi/ 'earth'. Others could probably be explained on the basis of specific semantic distinctions such as the correlation with fecundity for fruit-bearing trees, which assigns most to the feminine gender. The historical-etymological origin of the word, Ancient Greek (AG) or loan, can also be at the root of a particular gender choice, for example, fruits keep the AG gender (neuter). As to loans (see Ralli, 1994b), they might keep the original gender as in /plaz/[fem.] 'beach' from the French 'la plage'; French masculine and English nouns generally become neuter in Greek: 'le sabotage' → /sabotage/[neuter], 'wagon' → /vaɣoni/[neuter]. A loan can also take gender by analogy to a Greek word, for example, 'le Monde' becomes /Mond//[fem.] in Greek by analogy to /efimeriða/ 'newspaper' which is feminine. Phonology could also play an important part as is made obvious in, again, loan words (see par. 2.1.2). Sex plays a significant role in gender assignment, mostly obvious in animate nouns (par. 2.1.1 and par. 2.2.1), followed by morphophonological factors such as assignment due to particular affixes (par. 2.2.2 and par. 2.2.3).

2.1 Gender in animates and inanimates

> What sorts of factors determine what gender a given lexeme will belong to? In a language where gender is partially based on sex, conceptual and 'natural' factors other than sex may also sometimes play a role.
>
> M. Aronoff, 1994: 86

2.1.1 Gender in animates

The traditional distinction in morphological classes (or, better, declensional types[2]) in Greek is

2. According to Corbett (1990: 49) declensional type describes a complex inflectional system where both case and number are involved, while morphological class is used for simpler singular-plural systems.

gender-based[3] with three distinct genders[4], masculine, feminine and neuter. Nouns, articles and adjectives are normally gendered, as well as certain nominals and pronouns. Gender assignment in nouns is not necessarily sex-driven although it could be indicative of sex[5]. So, where humans are concerned, we have a clear distinction between the masculine and feminine genders according to sex, in:

- one-gender nouns such as

  /anδras/[6] 'man' (masculine)
  /γineka/ 'woman' (feminine)

- In two-gender nouns (which present two different inflectional types with the same stem, one for each gender) like

  a) /non-os/ 'godfather' – /non-a/ 'godmother'
  b) /iro-as/ 'hero' – /iro-iδa/ 'heroin'

These belong to two categories, one where gender is stated on the inflectional suffix and another where the derivational suffix marks the feminine gender (examples a and b respectively). In the first category, one can find mostly nouns referring to family relations but also nouns, which used to be adjectives:

/filos/ – /fili/ 'man friend – woman friend'
/aγapitikos/ – /aγapitikja/ 'lover (m-f)'

In contrast, gender is not necessarily sex-related in the following cases:

- Common gender nouns, for example /anθropos/, which refers to a man as well as being used as a general term for a human being, be it male or female (the same way 'man' is used). In particular, professionals are often of common gender and have the same form in all cases and both numbers, whether they refer to male or female individuals:

  /pilotos/[masc./ fem.] 'pilot'
  /aerosinodhos/[masc./ fem.] 'airhost/ess'

A special, rather rare, case of common-gender nouns, is indeclinable loan words referring to humans:

/star/[masc.,/fem.] 'star (as in 'movie star')'
/bitnik/[masc./ fem.] 'beatnik'

Generally, in such cases, disambiguation is based on the syntactic environment of the said noun: articles, nominals, pronouns, adjectives, with the exception of those for 'male' and 'female' (but

3. For a phonological classification see Mackridge (1985), also below.
4. Many nouns carry a single gender in MG. English, however, is a different matter. Corbett has suggested that, in English, semantic evidence for the existence of a gender category has to come from agreement markers on other elements of the phrase. Cf. par. 4 where this is useful for MG too.
5. Aronoff (1994: 11) makes a similar claim for other languages where he considers genders – or noun classes – for the most part free of any conceptual basis. The distinction between noun classes and genders, if any, is due to 'grammatical tradition rather than linguistic data' (Corbett, 1990: 146).
6. A simplified version of the International Phonetic Alphabet is being used.

see further down for their use with animals). Further, the nouns for 'man' and 'woman' can be used as sex markers (and, in consequence, gender assignors):

/i[fem.] γineka[fem.] pilotos/ 'the woman pilot'
/o[masc.] andras[masc.] aerosinoδos/ 'the (man) air-host'

Adjective – noun compounds describing members of certain professional fields mark the sex of the referent on the adjective (examples from Mackridge, 1985: 46):

/δimotiki[fem.] simvulos/ 'town councilor'
/kinoniki[fem.] liturγos/ 'social worker'
as opposed to 'δimotikos simvulos' and 'kinonikos liturγos' respectively

Titles have a form of their own:

/o[masc.] kirios[masc.] proeδros/ – /i[fem.] kiria[fem.] proeδros/ '[the] Mr./Mrs. President'

Here the old adjective, /kiria/ 'lady, Mrs.', is contributing the feminine gender needed (/kirios/ for the masculine gender). In all the cases above, where gender disambiguation is required, the article alone would have been sufficient.

- Nouns can also be used to refer to a semantic quality in a general way. Interesting is the case of two-gender ones, where the masculine plays this part:
- ama exis tetjus[masc.] *filus* [masc.] ti tus[masc.] thelis tus[masc.] *exthrus* [masc.]
  if you-have such friends what [them] do-you-want [the] enemies – for (a saying)

Common-gender ones may also act this way; the masculine will again be used:

o [masc.] pirotexnouryos exei poli δiskolo eryo
The pyrotechnist has a-very difficult task

Neuters can easily refer to both male and female humans:

- A characteristic example is neuter diminutives, in particular, proper names (see Katramadou 2000, for a detailed analysis of Greek diminutives and gender):

  /Alekaki/ can refer to both a man called Alekos and a woman called Aleka, /Kostaki/ for a man called Kostas, /Elenaki/ for a woman called Eleni

- This is also very common with one-gender diminutives:

  /γinekaki/ 'little woman', /anδraki/ 'little man', and

- the masculine of two-gender ones:

  /anipsaki/ 'young nephew' (/anipsjos/ 'nephew') and not, usually, 'young niece'; similarly /anipsi/ 'young nephew'

- Common-gender nouns are rarely found in the neuter:

  /moro/ 'baby', /peδi/ 'child' (in certain idioms, the latter refers to the male child), /afendiko/ 'boss' (lately, the neuter is reserved mostly for the male sex and we use /afendikina/ for the female)

- Nouns describing human children are neuter:
  /ayori/ 'boy', /koritsi/ 'girl', /vasilopulo/ 'royal child (son)'

Peter Mackridge in his monograph on the MG language (1985: 43) examines gender in relation to sex for humans and comes to the following conclusions:

> The most basic concept is that while masculine nouns may be applied to females as well as males, feminine nouns also to males, and neuters to either, the masculine is generally thought of as not necessarily marked for gender when referring to persons (similarly, the neuter is unmarked with reference to inanimates): the masculine may cover both males and females, whereas the feminine normally refers only to females.

Another category of animates is non-human ones. This category basically refers to animals. These present particular idiosyncrasies. Certain animal nouns have one gender semantically although their morphology suggests another. For example, /ɣata/ 'cat' is morphologically feminine but may refer both to a female cat and a tomcat (although a word for it exists: /ɣatos/). Similarly, /skilos/ 'dog', is morphologically masculine, but can also refer to a bitch (although we do have the feminine /skila/). These nouns are used mostly when we do not know for certain (or don't care for) the sex of the said dog or cat, not least because these are general terms of reference of the said species. Other animal names can also fall into this category but, more often, we have neuters describing the species (sometimes, with no masculine or feminine word for males and/or females). In Table 1, a list of animals and their idiosyncrasies of gender is offered; the morphological gender distinction is followed and terms that refer to the species are marked as 'general'.

MASCULINE	**FEMININE**	**NEUTER**
ɣátos	ɣáta (general) 'cat'	
skílos (general) 'dog'	skíla	skilí (general)
tráɣos	katsíka (general) 'goat'	
távros	ayeláδa (general) 'cow'	vóδi (general)
	foráδa	áloɣo (semantically masc., general) 'horse'
	provatína	kriári (semantically masc.), próvato (general) 'sheep'
léon (old)	Léena	ljodári (semantically masc., general) 'lion'
	arkúδa 'bear'	
tíɣris	tíɣri (general) 'tiger'	
	leopárδali 'leopard'	
ayrióxiros (general)		ayrioɣúruno(general) 'boar'
	ɣurúna, skrófa	ɣuróni (general)'pig'
kókoras, petinós 'cock'	kóta 'hen'	
	pápja 'duck'	
	xína 'goose'	
	xeliδóna	xeliδóni (general)'swallow'
	peristéra	peristéri (general) 'dove'
spuryítis (general)		spuryíti (general) 'sparrow'
pondikós (general)		pondíki (general)'mouse'
aruréos 'rat'		
eléfandas 'elephant'		
		δelfíni 'dolphin'
	fálena 'whale'	

Table 1 Gender for animals

It is obvious from the table above that both masculine and feminine nouns for animals can be used as general terms, while neuters can do this par excellence these days. Masculines for male animals are usually older terms which tend to be replaced by neuters: e.g. /kriari/[neuter] (from /krios/[masc.]), 'ram'. Quite a few animals do not have distinct terms for masculine and feminine but use the same, with the adjective for 'masculine' or 'feminine' marking the sex (the article by itself is not sufficient): /thilikos elefandas/[masc.] 'female elephant', /arseniki falena/[fem.] 'the male whale'. In these cases, the article and the adjective agree with the morphological gender of the noun and not the semantic one. This means that /arseniki falena/ will follow the particular feminine paradigm of the type of its members (article, adjective and noun conjugate in MG), for example in the Genitive we shall have /arsenikis falenas/; morphological gender prevails over semantic in this (but see par. 4 for possible exceptions). Some animals have two forms corresponding to two genders none of which truly refers to sex: e.g. /spuryitis/ and /spuryiti/. Finally, the young of animals (not mentioned in the table above) are usually diminutives of the general term or – more rarely – have their own term. These are always neuter: /skilaki/ from /skilos/, /arkuδaki/ from /arkuδa/, but /arni/ for /provato/.

2.1.2 Gender in inanimates

Inanimates are predominantly one-gender. It is interesting to notice that, in AG, neuter was used to denote things as opposed to beings (see Chantrain, 1990: 47). This is mostly the case today:

/vuno/ 'mountain', /spiti/ 'house, home', /kima/ 'wave'
/apiδi/[neuter] (AG /apion/[neuter]) 'pear'

There is, however, a semantic residue of inanimates, which belong mostly to the feminine gender and some also to the masculine one:

- Most abstract nouns are feminine with the exception of those ending in *-ismos* which are masculine:

  /eftixia/[fem.] 'happiness', /kapitalismos/[masc.] 'capitalism'

- Metals are masculine:

  /siδiros/[masc.] 'iron', /xrisos/[masc.] 'gold'

- Fruit-bearing trees and several plants, whose name derives from the name of their fruit or flower, are feminine (a connotation of fecundity seems to be at the bottom of this):

  /milja/[fem.] 'apple-tree', /triandafilja/[fem.] 'rose-tree'

- Exotic fruit is often feminine, but also masculine and neuter, as a result of phonological similarities with the endings of MG nouns (most Greek names for fruit are neuter):

  /papaɣja/[fem.] 'papaya', /banana/[fem.] 'banana' but /ananas/[masc] 'pineapple', /avokado/[neuter] 'avocado'

- Various other inanimates can have either gender:

  /petra/[fem.] 'stone' but /vraxos/[masc.] 'boulder', /uranos/[masc.] 'sky' but /ɣi/[fem.] 'earth', /platanos/[masc.] 'sycamore' but /valaniδja/[fem.] 'oak'

Inanimates, present several idiosyncrasies with respect to gender, for example

- Two-gender nouns such as

  /solinas/[masc.] 'tube' – /solina/[fem.]
  /krinos/[masc.] 'lilly' – /krino/[neuter]
  /ɣefira/[fem.] 'bridge' – /ɣefiri/[neuter]

These have similar meaning although combining the same stem with two inflectional paradigms of a different gender:

- Nouns with a different gender for each number, the singular being masculine while the plural neuter:

  Sing. nom. /plutos/[masc.] 'wealth' – Pl. nom. /pluti/[neuter]'riches'

- Nouns which are masculine in the Singular but have two Plurals of different gender, one masculine, and the other neuter:

  Sing. nom. /vraxos/[masc.] 'rock' – Pl. nom. /vraxi/[masc.], /vraxja/[neuter]

2.2 Gender in the stem and suffixes

2.2.1 Gender and the stem

There is some dispute as to whether gender should be assigned to a noun's stem or its suffixes, inflectional or derivational. If we assign the gender of nouns to their stem[7], this is because it will account for the following facts:

1) If gender is semantically assigned to a noun, then it will probably be inherent to the stem and be determined by the lexical meaning of the noun. Semantic assignment applies, for example, to certain one-gendered nouns referring to humans, e.g. /anδr-as/[masc.] 'man', /ɣinek-a/[fem.] 'woman'.
2) Imparisyllabic stems, which are both animate and inanimate, are obvious carriers of gender; those ending in *-δ-* are masculine or feminine, those in *-τ-* neuter: e.g. /kafe-δ-es/[masc.] 'coffees', /alepu-δ-es/[fem.] 'foxes', /kima-t-a/[neuter] 'waves'.
3) If noun classes are phonologically determined (see par. 2.2.2) then the phonological shape of the ending of the base (which will coincide with the ending of the noun) can determine gender membership. For example, /karekla-∅/[8] 'chair' is obviously a feminine noun subject to a particular inflectional paradigm (gen. /karekla-s/). Last but not least,
4) Children, which are in the process of acquiring the Greek language and students of the language, can predict some of the genders of nouns (human ones mostly) without reference to their endings (inflectional class, by the way, is not generally predictable). Even more so, native speakers can predict the gender of nouns unknown to them by having access to the stem only, especially if gender is semantically assigned[9].

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7. Ralli (1994a) considers masculine, feminine and neuter common-gender nouns ending in -os as the basic reason for including gender among the characteristics of the stems of nouns, but I believe that since you can't predict gender just by having access to the stem of a common-gender noun, it shouldn't be part of its characteristics (see also footnote 14).
8. The symbol ∅ is a zero affix, occupying here the place of the inflectional suffix in the nominative singular for this particular declensional type.
9. I performed an informal test with rare abstract nouns, for the needs of my D. Litt. et Phil. thesis, and my four informants' predictions, for the nouns they couldn't' give a definition for, where a 100% correct.

The above suggest that stem is the gender carrier. In contrast, gender in adjectives is signalled by the inflectional suffix, which lends itself to agreement with the controller noun (see, for example, Ralli, 1994). There are also nouns, however, which are subject to a variety of gender carriers, besides stem, such as inflectional and derivational suffixes, as well as syntactic means:

> personal nouns ... exhibit a tendency of gender mobility either in being marked by the article (always gendered in the Singular), or by means of derivation such as in *kathigitis* (masc.), *kathigitria* (fem.) 'professor' where the change in gender is brought about by a derivational affix, or *fil-os* (masc.) – *fil-i* (fem.) where it is signalled by the respective declensional class suffix. This mobility serves the function of denoting the sex of persons. Contrary to inflectional gender in e.g. adjectives, gender motion in nouns is not fully productive, but subject to various restrictions ... as expected for a derivational rule. (Christofidou, Doleschal & Dressler, 1990–1991).

The different ways to have gender allotted to nouns is equivalent to saying, as Mackridge (1985) does, that gender is not inherent to the stem. The latter bases his hypothesis on the following linguistic facts of MG:

1. The existence of nouns, which change gender from singular to plural.
2. The addition of a derivational suffix can produce a similar effect to others.
3. The fact that there are nouns that have two different genders (and two sets of inflections).

Number 1 seems to be a valid argument, as is number 3'. Number 2', however, is more complex: Derivational suffixes (unlike inflectional ones) are endowed with meaning, as is the stem, and although they are not as heavy semantically as the stem is, technically they should be considered equal; accordingly, they should have a place in the lexicon as do stems, and carry their own features like them. The fact that they impose their gender value to the derivative doesn't mean that the stem doesn't carry the feature of gender; it only means that the suffix proves stronger in imposing its own to the word, due to its position which renders it head of the word (Right-hand Head Rule, see Williams, 1981). See par. 2.2.3 below for a detailed approach.

The categories of nouns for which stem seems to be genderless, are basically the following:

- Two-gender nouns, like adjectives, do not allow prediction of their gender just by having access to the stem. Pragmatic and/or syntactic factors (i.e. reference) should be involved; it is legitimate then to say that in such cases gender is part of the suffix's baggage, be it derivational or inflectional in the absence of a derivational suffix (derivation takes place before inflection and presupposes the existence of a base).

- Common-gender nouns need syntactic agreement since neither the stem nor the suffix shows gender. Check, for example, certain common-gender nouns describing a profession: e.g. /aerosinoδos/[masc./fem.] 'airhostess', /δiδaktor/[masc./fem.] 'Doctor (Ph.D.)'. Since 1981, a conscious effort has been made to abide by the general tendency that dictates gender-driven inflection and distinguishes the above accordingly. So, we now have /δiδaktorisa/[fem.] and /stratiotina/[fem.] (from /stratiotis/ 'soldier'). Those ending in *-os*, however, have resisted this effort until now. These include both nouns that where originally feminine till the profession they described opened to men (as is our first example above), and the reverse: e.g. /pilotos/ 'pilot' (masculine but lately also feminine – /pilotina/ has not caught up yet). Such nouns show their gender through agreement: the semantic gender of the noun takes a morphological form in the article, adjective, etc. that accompany it.

- Inanimates are often unpredictable with respect to gender, with the exception of cases where gender assignment is semantic, such as fruit-bearing trees, or abstract nouns.

2.2.2 Gender and the inflectional suffix

It seems then, that with all these exceptions, it can hardly be sufficient for our grammar to consider the gender of nouns as a characteristic of their stem only. This shouldn't, however, guide us to the opposite conclusion, namely

> Morphologically a noun in Demotic Greek is masculine, feminine or neuter for no other reason [than] that it occurs with a defined set of inflectional morphemes and not another set (Sotiropoulos, 1972: 37).

This means that gender in MG is inflection-driven[10]. This is too strong a claim, in that not only it denies gender in the stem but also the derivational suffix. Nonetheless, the relation between the inflectional suffix and gender presents an interest of its own.

Inflection-driven gender is especially obvious in loans which might take gender according to their ending and its resemblance to a Greek inflectional one: /palto/[neuter] 'overcoat' from the French 'paletot (masc.)', is neuter because the '*-o*' ending in Greek is related to the neuter gender. This type of gender assignment is not unknown in the MG grammar. Similarly, two-gender nouns have gender determined by their inflectional ending (unless they have a derivational suffix play that role).

The reverse is also possible in MG, namely, gender-driven inflection. Aronoff (1991: 23) offers the following as the gist of the relationship between concept, gender, phonological form and inflection:

> The conventional view of the relationship among conceptual class, gender, morphological class and phonological form is simple and highly directional: nouns of a given conceptual class will be assigned to a given gender, which in turn will trigger a particular morphological class, resulting in a characteristic affix.

Of course, as Aronoff observes, this relationship is not as straightforward as it sounds, which leads him to propose the phonological form of the base as the determining factor of a noun's membership to a morphological class. It seems, that this can be a criterion in MG in cases where the base ending is also the ending of the noun (see below for phonologically determined noun classes). Most often, MG inflectional classes are gender-driven in the case of semantic assignment, usually sex-related. This means that gender is chosen from the stem on semantic grounds, which will then demand an inflectional suffix that will comply with the gender specifications for inflection. According to Mackridge (1985: 45)

> In traditional Demotic the gender of nouns was inextricably linked with their inflection, and a noun could not change gender without altering its declension (that is to say, there were no nouns of common gender in traditional Demotic).

However, Baker (1991: 89) points out that predictions as to the inflectional class of a noun cannot always be based on sex and gender, which holds for MG too:

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10. This has been suggested, for example, by Corbett (1990) for Russian, who also deplores the gender-driven inflection hypothesis of the German Grammar.

> The suffixes that are added to a noun ... (the noun's *inflectional class*) cannot be predicted completely on the basis of the sex of the referent of the noun (the noun's semantics) or the pattern of agreement that it induces on words in construction with it (the noun's *gender*, or syntax).

Indeed, predictions of gender based on our knowledge of the inflectional suffix and the reverse is not always straightforward. There is a one-to-many mapping between gender and inflectional class that is not an unusual phenomenon in highly inflectional languages. The grammar books taught in Greek schools (i.e. Triandafyllidis' *Neoelliniki Grammatiki*, 1993) offer three declensions based on the gender distinction between masculine, feminine and neuter. An outline of the subcategorization of Greek nouns into three declensional types is offered below:

The first declension consists of masculine nouns. This is subdivided into two classes. To the first belong nouns ending in *-ας, -ης, -ες* and *-ους* (/as/, /is/, /es/, /us/). To the second, those ending in *-ος* (/os/). This distinction is further complicated by admitting in the first class the number of syllables in singular and plural as criterion for further subdivision; those with the same number of syllables in both belong to one class, all the rest in another. The morphological paradigm (although the endings are different) is the same: they all end in *-s* in the Nominative singular and keep their vowel to the end in all the other cases. Plural cases are exactly the same, ending in *-(δ)ες* (/δ-es/) in the Nominative, Accusative and Appelative and in *-ων* (/on/) in the Genitive. Stress is used to subdivide them further into those stressed on the penultimate and the antepenultimate. The endings of the first class can only be found in masculine nouns.

This is not the case of the second-class endings. This is simpler, consisting of masculine nouns ending in *-ος* (/os/) in the Singular Nominative but having different types for all the other cases, except the Nominative and Appelative Plural, which are the same. They have the same number of syllables in singular and plural. The problem is that the Nominative singular ending is also found in feminine and neuter nouns while the rest of the paradigms differ only in the neuter Genitive singular and the neuter and feminine Appelative singular.

Feminine nouns belong to the second declension. They are subdivided into two classes based on the number of syllables they have in singular and plural. Stress is not a criterion since it remains on the syllable stressed in the Nominative singular (with the exception of ancient endings still in existence, i.e. *-ος*, and *-η*, plural – *ες*). The endings are *-α, -η, -ω, -ου, -ος* (/a/, /i/, /o/, /u/, /os/). The morphological paradigm is the same in all (except *-os*): the Nominative, Accusative and Appelative end in the vowel while the Genitive takes a final *-s* next to it. The plural takes *-ες* (/es/) in all three and *-ων* (/on/) in the Genitive.

Neuters belong to the third declension and are also subdivided into two classes according to the number of syllables in the Singular and the Plural. Neuter endings are *-ο, -ι, -υ, -μα, -ιμο*, and *-ος* (/o/, /i/, /i/, /ma/, /imo/, /os/). Stress follows different patterns and is not used as a definite criterion for subdivision.

As opposed to the traditional declensions above, a description based on the phonological shape of the noun's ending presents fewer distinctions but gender differentiation is sometimes fuzzy:

- Nouns ending in *-η* (/i/ eta), *-ου* (/u/) and *-ω* (/o/ omega) are feminine:

  /aγapi/ 'love', /alepu/ 'fox', /froso/ 'Froso' (used for proper nouns only)

- Nouns ending in *-s*, i.e. *-as, -ης, -es*, are masculine:

  /patera-s/, 'father', /manavi-s/ 'greengrocer', /kafe-s/ 'coffee'

Those ending in *-υ-ς* and *-ι-ς* (/i-s/, ancient endings rarely in use), however, are feminine:

/isxi-s/ 'power', /patri-s/ 'motherland'

- Most other generalizations we could possibly make are hardly as clear-cut. So, nouns ending in *-α* are usually feminine, although there seems to be a class of neuter nouns with the same ending; all of these, however, actually end in *-μα* (/ma/); even more treacherous is the case of nouns ending in *-ί* (this is 'eta' for feminines and 'iota' for neuters but phonologically they are the same):

  /anasa/[fem.] 'breath', /kima/[neuter][11] (n) 'wave – /areti/[fem.] 'virtue', /keri/[neuter] 'wax'

- This sort of confusion can be caused if we only take into account the Nominative Singular[12]. If, however, we consider the rest of the paradigm, the problem of gender differentiation is solved. Those ending in *-ο* (omicron) are neuter:

  /nero/ 'water'

These phonologically could be confused with the feminine ones in *-ο* (omega) but, again, only in the Nominative singular.

- Even more interestingly, nouns ending in *-os* are usually masculine, but we can also find feminine nouns[13] with this ending as well as neuter ones, for example:

Sing. nom.	./pothos/[masc.] 'desire'	/nos-os/[fem.] 'illness'	/pathos/[neuter] 'passion'
gen.	/poth-u/	/nos-u/	/path-us/
acc.	/poth-o/	/nos-o/	/path-os/
Pl. nom.	/poth-i/	/nos-i/	/path-i/
gen.	/poth-i/	/nos-on/	/path-on/
acc.	/poth-on/	/nos-on/	/path-on/

Here the inflectional paradigms of the masculine and feminine are the same (except for the rear Appelative in the Singular not shown above) and only the neuter is morphologically different in the Genitive and Accusative Singular while the Plural Genitive stress falls on the ending (not so with the others which keep the same stress pattern throughout).

The phonological approach to noun classes seems theoretically 'correct' in the sense that it can account for both semantic and formal gender assignment as was shown above. It is however, uneconomical and has not caught up yet (it is not suggested in school grammars, for one).

Furthermore, there are quite a few nouns that do not abide by the general rules of the three declensional types. Some are indeclinable (usually loans and proper names) others do not have forms for all the cases of the paradigm they should normally belong, while a third category has its own declensional type. A further category has two forms in the same gender (same stem) while others follow two inflectional classes either in the singular or plural. All these should be treated separately whether our approach is traditional or phonological.

To conclude, the basic problem concerning the relation between gender and inflection is not so

11. I refer here to singular endings only and not plural ones which could complicate things further. There is, for example, a plural (nominative-accusative) ending -a for neutrals.
12. Notice that these endings as well as -u, and -o (fem.) belong to the base and are not inflectional endings in this approach. The inflectional ending for such nouns in the nominative singular might be a zero affix (see Ralli, 1998, for a detailed account of Greek inflectional suffixes).
13. Ancient ending still in existence, according to Triandafyllidis (1993).

much which one helps us predict the other (inflection-driven gender or gender-driven inflection) but rather how to determine which particular inflectional ending corresponds to which gender and vice verse. This is not an easy task as we have seen.

2.2.3 Gender and the derivational suffix

The relation between the derivational suffix and gender is another matter. As a rule, the derivational suffix allots its gender to the noun, whether the stem carries the gender feature, for example,

> /ɣineka/ 'woman' – /ɣinek-aki/ (a feminine noun which takes a neuter diminutive suffix and gives a neuter derivative)
> /koritsi/ 'girl' – /korits-aros/ 'big and/or sexy girl'; this is a noun (old diminutive derivative, not recognised as such any more) which refers to humans of the feminine sex but has neuter gender as do all nouns referring to children. The augmentative is masculine because the suffix used, is so.

Or not:

> /skilaδικο/ 'cabaret', /xilaδiko/ 'wood shop'. This combination of the stems /skil(-i)/ 'dog', /xil(-o)/ 'wood', produces neutral nouns for shops (*-iko* by itself is very productive in forming adjectival derivatives). The same seems to hold true for all derivatives in *-aδiko* denoting a shop. This is neuter, and the derivative is also neuter, so it is legitimate to suggest that the suffix imposes its gender to the whole.

Derivational suffixes come in various combinations of the three genders but it is certain diminutives that have all three:

> /anδr-ulis[masc.]/ 'little man' – /ɣinek-ula[fem.]/ 'little woman' – /mor-uli[neuter]/ 'little baby'

Others have two, usually masculine and feminine:

> /xoreft-aras[masc.]/ 'great male dancer'– /xoreft-aru[fem.]/ 'great female dancer', /mathi-tis[masc.]/ 'male pupil' – /mathi-tria[fem.]/ 'female pupil'

Quite a few have only one:

> /kur-eas[masc.]/ 'barber', /pithan-otita[fem.]/ 'possibility', /kleftr-oni[neuter]/ 'little thief'

Even if the noun-to-be-derived and the derivative have the same gender, it doesn't mean that they are syntactically the same. Bauer (1983: 31) suggests that the base and its derivative are two lexemes, which generally belong to 'syntactically distinguishable subclasses of noun'; since inflectional class is not syntactically relevant but gender is, it follows that what Bauer refers to is gender-based morphological class. Of course, it is highly likely that these two will also belong to different inflectional classes (even when they belong to the same gender):

> /xoreftis/ 'dancer' – /xoreftaras/ 'great dancer' (same gender, different inflectional class)
> /anδras/ 'man' – /anδraki/ 'little man' (different gender, different inflectional class)

3. The Gender feature

> Only stems, bound bases, and derivational affixes will have full categorial signatures[14]. Inflectional affixes will be marked only with individual features for which they contain specified values. In derivational word formation the value for a feature of a head morpheme will supersede or override that of an inner morpheme. Features from inflectional morphemes can never override features from their bases but can only fill in values unspecified in the categorial signatures of their bases. Inflectional word formation is therefore **additive** in a way that derivational word formation and compounding are not. A corollary of this is that while derivational affixes may or may not be heads of their words, inflectional affixes will never be heads. Lieber, R. (1992: 112)

The problem of the gender carrier, stem, inflectional or derivational suffix, is particularly acute in MG because, as we have seen, all three may play this part. This doesn't allow for a unified theoretical approach. We do however have some common denominators:

- The derivational suffix is always head of its construction and passes on its gender to the word.
- Two-gender nouns and nouns where gender is not semantically assigned, often have gender assigned by the inflectional ending.
- Nouns referring to humans usually have semantically assigned gender, which percolates from the stem.

Inflection will be considered as taking place in the lexicon in accordance with a generative lexical model such as Ralli's (1994a) for MG. I believe, however, that, contrary to what she suggests (argument based on the similarity of the inflectional paradigms of common-gender nouns which I handle differently below), inflectional suffixes should carry the gender feature to help disambiguate two-gender nouns. While derivational suffixes have lexeme status in our theory and may carry the gender feature in their lexical entry and stems also carry a value for the gender feature when they have one, two-gender nouns are more complicated. I would consider the following solutions, with a unified account of gender treatment in view:

1) The gender feature will remain underspecified and the necessary value will come from the inflectional ending,
2) We may have different entries of the base in the lexicon (a sort of relisting: see Relisting in Lieber, 1992) stipulated by the different gender, and
3) One base will be listed with a gender feature with two or three values.

The first two are uneconomical: the former because with an unmarked-for-gender stem the grammar might come up with more matches than we may care for. Besides, it is not justified by the linguistic data whereby, for example /non-/ (stem for 'godfather/mother') will have to be either masculine or feminine (/nonos/, /nona/) but not neuter; this will not be captured if the gender feature remains underspecified. The only case were underspecification might be acceptable is when a stem carries all three gender values; still, I believe that this too should better be explicitly stated, if it doesn't put too much load on the grammar, since it is a fact of the language. It might be worth considering a theory, however, whereby the feature of gender is not marked on the stem but, rather, on the inflectional suffix because this would simplify the treatment of gender across

14. According to Lieber 1992:88 'the categorial signature is a frame of morphosyntactic features headed by the category features ... that are of syntactic relevance for a particular category in a particular language'. MG gender is definitely relevant in syntax, cf. par. 4 on Gender Agreement.

nominals since, adjectives and pronouns take also the gender feature from the inflectional suffix.

The latter (relisting) is uneconomical because it will overload the lexicon. Moreover, Lieber suggests that it should be used with a stem belonging to two different syntactic categories, which isn't the case here.

The third doesn't seem to be favoured by older grammars that also propose the attribute-value character of features, as we will (they embraced the binary system of values instead). In MG however, multi-valued features are common (see Ralli, 1994: 7, for support of such features in MG as well as disjunctive values). This approach will be favoured in what follows.

Let's consider now the type of gender representation. A neat way to handle the characteristics (features) of words is to present them in the form of attribute – value pairs. This has been a special field of preoccupation in Generative lexical theories such as Lieber's (1980; see also Ralli, 1994 and 1998, for MG). The attribute in our case is Gender and its values for MG are masculine, feminine and neuter. The form this could take is the following

[Gd:{masc., fem., neuter}]

Underived (or simplex) nouns may have up to three disjunctive values for gender. Such is the case of many adjectives and certain animate nouns:

/aδelf-/[masc./ fem./ neuter]: /aδelfos/[masc.] 'brother', /aδelfi/[fem.] (the final /i/ is eta) 'sister', /aδelfi/[neuter] (the final /i/ is iota) 'little brother (rarer: sister)'.

Other animates have two:

/fil-/[masc.,/fem.] 'friend': /filos/[masc.], /fili/[fem.]

Some have only one:

/mor-(-o)/[neuter] 'baby'

Inanimates have only one gender in all but two-gender nouns:

/vroxi/[fem.] 'rain'
/krin-/[masc.,/neuter] 'lilly': /krinos/[masc.], /krino/[neuter]

Let's see now, how the word takes its gender value in one-gender and two-gender nouns. The notion of feature percolation taken into account is similar to Lieber's (1992) adapted to the specific needs of MG nouns. We will consider percolation as happening first from the derivational suffix and in its absence from the stem. If the word is not derived and stem fails to produce a definite value for gender then the inflectional suffix will be considered[15]. This is equivalent to Lieber's (1980) Backup percolation, whereby

> If the node dominating the head remains unmarked for a given feature after Head percolation, then a value for that feature is percolated from an immediately dominated non-head branch marked for that feature

15. Ralli (1994a) suggests that the inflectional suffix shouldn't carry the gender feature because the same suffix may be used for both masculine and feminine, i.e. -os. Since, however, this isn't a regular practice in MG (cf. par. 2.2.2 and, moreover, there is a tendency to have the feminine of common-gender nouns acquire its own suffix, e.g. /δikiγoros/–/δikiγorina/ 'lawyer', it is legitimate to allow the inflectional suffix carry this feature.

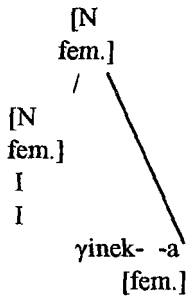

Figure 1: one-gender percolation

The example above is fairly uncontroversial. The stem is feminine and its value percolates to the top. The inflectional suffix will have to carry the same gender value but since the stem has a definite value for gender, the latter doesn't need to be considered.

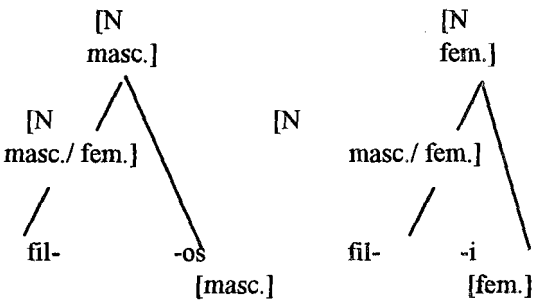

Figure 2: Two-gender percolation

The second example shows backup percolation: the stem has two values for gender but we only need one at the top node; the inflectional suffix offers the value needed. There is, however, one more case to be considered, and this doesn't allow for one gender value at the top node, which is the preferred state to have. It is the case of common-gender nouns:

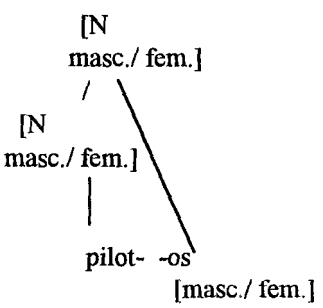

Figure 3: common-gender percolation

Here disambiguation will occur at the syntactic level. Notice that the *-os* suffix in the two examples above has different values for gender. I would like to suggest that we have here a case of homophonous suffixes that should be listed separately, the first marked for two-gender nouns and the second for common-gender ones.

Derivational suffixes may also have three, two or one value for gender as we have seen in par. 2.2.1. Typically, derived words should have only one value for a particular feature. The gender value of the derivational suffix overrides, in the following example, the gender value of the stem and percolates to the top (word) node:

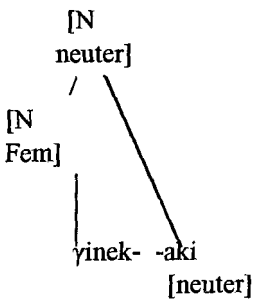

Figure 4: Gender percolation from the derivational suffix

In conclusion, I would like to suggest that there is an intrinsic order between the gender percolation rules mentioned above, which is based on the notion of headedness. The value on the derivational suffix overrides that of the stem and the inflectional suffix (which is not normally head). The value on the stem overrides that of the inflectional suffix. Only in cases where the derivational suffix and the stem have more than two values for gender then the value on the inflectional suffix comes into play (the inflectional suffix becomes then head with respect to gender).

4. Gender agreement

Corbett (1991) offers for agreement, Steele's (1978: 610) definition:

> The term agreement commonly refers to some systematic covariance between a semantic or formal property of one element and a formal property of another.

Such a property is in our case, gender, which can be either semantically or formally assigned (or both) as we have seen. Until now, we have mainly discussed controller gender, that is the gender of nouns, as opposed to target gender, the gender of agreeing forms, such as adjectives, pronouns, articles, etc. (for a detailed account, see Corbett, 1991: 150–154). Here we are going to see how one can support the other. Corbett, in his 1990 monograph on gender, takes the view that

> The existence of gender can be demonstrated only by agreement evidence.

This is not an unusual claim particularly with non-inflectional languages. MG seems to do well in showing gender by different means besides agreement but it seems that agreement can clarify cases such as those where we have an ending belonging to more than one gender for ex. *-os*: /o jatros/ (m) – /i jatros/ (f) 'the doctor' (the morphological rule applying to *γιατρός* is the same in both cases – the only indication of gender comes from the article which inflects according to sex, masculine if the said doctor is a man and feminine if it is a woman).

Generally, agreement supports the other means. So articles and adjectives should agree in gender with the controller noun. In the case of hybrids, however, things can get a little complicated. Spencer (1991: 197) offers an example of a diminutive derivative that behaves in agreement, as the base would although they are of different gender: It is the Russian proper name

diminutive *-sa*. In MG, especially in everyday speech, language users may assign a feminine pronoun to the neuter *κορίτσι* (this will not be the case for the accompanying article and/or adjective). The rule, however, would be to use neuter, most of the time in the predicate, and always for the adjective and article accompanying the noun:

pu ine to[neuter] koritsi[neuter]? Les γι' aftin[fem] pu irthe prin liγo?
Where is the girl? You're-talking about her that came a-little-while- ago?

To[neuter] koritsi[neuter] ine oreo[neuter]
The girl is pretty

5. In conclusion

The MG gender system for nouns is subject to formal (phonological, morphological) but to a certain extent also semantic assignment systems. Animate human stems carry it in most cases and there are also certain inanimate ones that do so. In most other cases gender seems to be part of the inflectional suffix's baggage (e.g. two-gender nouns). Derivational suffixes generally carry the gender feature and they will always impose their gender value to the derived word. Feature percolation then will let this leak to the top. In its absence, the stem's gender will do so. If this has more than one value, the inflectional suffix's gender will come into play. Syntactic agreement helps adjectives, articles and other gender-marked nominals get their gender value from the controller noun, while, in cases where the gender of the noun is not obvious, it allows for disambiguation.

Such an in-depth analysis of Greek Gender has been possible through application of the Lexicalist theory of Generative Grammar, which allows morphology to play a semi-independent role in grammar. Moreover, it can be used by language teachers as the theoretical base that will allow them to teach the rules of gender in a comprehensive way, taking into account the parts of nouns that are actually involved in gender assignment, both at the morphological level (stem, suffixes) and the semantic one (animate, inanimate) without ignoring syntax. The complexity of gender is thus disambiguated and the teacher has a solid tool that will help him/her offer students a clear view of what gender is, how it is assigned and how it functions in Greek language. A teacher could apply this framework to the teaching of gender of other languages, especially inflectional ones, while a lecturer of Linguistics could use it to address this and other morphological categories and even offer such an exercise to his/her students.

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