WORD IN MODERN GREEK[1]

Brian D. Joseph

The Ohio State University

1. Introduction

Despite centuries of sophisticated grammatical analysis of the Greek language,[2] we are no closer, perhaps, to a fully satisfactory account of what a 'word' is in that language than what the syntactically-based definition given by the Hellenistic grammarians (Robins 1993: 57) has to offer:

(1) perì léxeōs: léxis   estì méros   toû   katà   súntaxin

about word+GEN word-NOM is-3sg part+NOM ART+GEN concerning syntax/ACC

lógou   elákhiston

expression+GEN least/NOM

On the word: A word is the minimal part of a syntactic construction

Moreover, the characterisation of the linguistic construct 'word' is, as far as Modern Greek is concerned, as vexed an issue as in other languages, despite some attempts in the literature at resolving it (e.g. Philippaki-Warburton & Spyropoulos 1999). Nonetheless, as the other chapters in this volume show, some progress can be made towards developing both a working definition and a suitable a set of heuristics that might permit the identification of proper units of analysis that instantiate the 'word', understood in some appropriate sense. In this chapter, this issue is explored in detail, and such a set of criteria for determining 'wordhood' for Greek is developed. In addition, a full discussion is offered of the attendant problems with these criteria and this determination .

2. Some Important Preliminaries

2.1. The theoretical framework

Many of the relevant issues pertaining to the identification of 'word' in Modern Greek hinge on the treatment of what might be neutrally referred to as 'little elements', what have been called 'clitics' in the literature.

The literature on 'clitics' is enormous,[3] and in this vast amount of scholarship, one finds incredibly varied ways in which different linguists have used the term 'clitic'. Some take it almost to be any short word-like entity that has some grammatical function and some prosodic deficiencies, and more tellingly, perhaps, relatively few linguists justify the use of the term for any particular element in the language under examination, as if it were always self-evident that a given element was a 'clitic'.

There is a solution in this terminological and analytic morass. As argued by Arnold Zwicky, in a number of works (but especially Zwicky 1985, 1994), the use of the term 'clitic' is most uninformative. He suggests that 'clitic ... is an umbrella term, not a genuine category in grammatical theory' (1994: xiii). Moreover, noting that many 'phenomena [that] have appeared under the clitic umbrella ... merely have marked properties in one or more components of grammar' (xv), Zwicky claims that instead of recognizing 'clitic' as a primitive element in the vocabulary of grammatical description, all that is needed is the more restrictive typology of just *word* vs. *affix*, and the recognition that there are typical and atypical words as well as typical and atypical affixes. If we want to use 'clitic' as a cover term for atypical words and atypical affixes, so be it, but it need not be a grammatical primitive, a construct required by the grammar.[4]

This is a view that I personally find very appealing, not only for its elegance and economy but for its precision. Accordingly, in this chapter, I generally avoid the use of the term 'clitic', and instead attempt to show that considerations of typicality, as suggested by Zwicky, are of great benefit in bringing some clarity to some often confusing data.

Since 'clitics' and such 'little' (i.e. clitic-like) 'elements' in general provide most of the direct challenges to any attempt to unambiguously identify words, all of the ensuing discussion of these elements clearly has a bearing on how the notion of 'word' is to be defined and determined for Modern Greek. In addition, some other tests relevant to this determination are examined.

2.2. Range of Clitic-like Phenomena in Greek

Modern Greek actually has a fairly large number of potential candidates for 'clitic' status; while these are typically treated as if they were words (in some sense) or 'clitics',[5] some (especially those with grammatical functions) may instead be analyzable as affixes (possibly inflectional in nature). A full enumeration of these elements is given in (2).

(2) a. elements modifying the verb, clustering obligatorily before it (when they occur), marking:

  subjunctive mood: na // as (hortative)

  future (and some modality):   Ta

  negation: De(n) (with indicative) // mi(n) (with subjunctive)

  b. elements marking argument structure of verb ('object pronouns'), occurring as the closest element to verb (i.e., 'inside of' modal etc. modifiers above), positioned before finite verbs and after nonfinite verbs (imperatives and participles); 'ACC' stands for direct object markers, 'GEN' for indirect object markers:

PERS	SG.ACC	SG.GEN	PL.ACC	PL.GEN
1	me	mu	mas	mas
2	se	su	sas	sas
3M	ton	tu	tus	tus
3F	ti(n)	tis	tis	tus
3N	ta	tu	ta	tus

  c. weak 3rd person nominative (subject) markers (with two — and only two — predicates, *ná* '(t)here is/are!' and *pún* 'where is/are?', always after the predicate and inseparable from it):

PERS	SG	PL
3M	tos	ti
3F	ti	tes
3N	to	ta

  d. 'weakened' (different from weak forms, cf. below) nominatives (i.e., subjects)

PERS	SG	PL
1	ɣo	mis

2	si	sis

e. attitudinal marker (of impatience), *dé*, always phrase-final (except for one fixed expression, *dé ke kalá* 'with obstinate insistence')

f. pronominal marking of possession within noun phrase (so-called 'genitive' pronouns, typically occurring at end of noun phrase after noun; identical in form with weak indirect object markers but not in all behavioral aspects (see below)):

PERS	SG	PL
1	mu	mas
2	su	sas
3M	tu	tus
3F	tis	tus
3N	tu	tus

g. definiteness within the noun phrase (the so-called 'article'):

CASE	M.SG	F.SG	NTR.SG	M.PL	F.PL	N.PL
NOM	o	i	to	i	i	ta
ACC	ton	tin	to	tus	tis	ta
GEN	tu	tis	tu	ton	ton	ton

h. locative/dative preposition *s(e)* 'to; in; on; at', always phrase-initial, attaching to whatever occurs next in noun phrase (but not necessarily always 'clitic'; see below).

Examples of these elements are given in (3), highlighted in italics:

(3) a. *De* *Ta* *ton* páte *s to* spíti *su*

    NEG FUT him+3sg+ACC go+2pl+PRES to the-house your

    You won't take him to your house

  b. *as* *min tus* *ta* púme *ta* néa *mas*

    SUBJUNC NEG them+GEN them+NTR+ACC say+1pl the news our

    Let's not say our news to them

  c. *na* *su* é rafe

SUBJUNC you+GEN write+3sg+PST+IMPFVE

He should have written to you

d. pés   *to dé*

    say+IMPVsg it+ACC *de*

    So say it already!

e. pún   *dos*?   Ná   *tos*!

    where.is he+WK+NOM here.is he+WK+NOM

    Where is he? Here he is!

f. kséro   γ*ó*

    know+1sg I+NOM(WKNED)

    How should I know?

In the sections that follow, after a brief typology of Modern Greek, the issue of how to characterize some of these elements with regard to wordhood or affixhood — or in-between status, if such is warranted — is addressed in the context of a general consideration of tests and parameters in Greek that might define the word for this (stage of the) language.

2.3. A Quick Typology of Modern Greek

A brief overview of Modern Greek from a typological standpoint is useful by way of setting the stage for understanding the data and argumentation to follow. Accordingly, it can be noted that Greek has a reasonable amount of inflexion — in the verb, in the noun and pronoun, and in the adjective — more so than any 'standard average European' language (but not as much as in Ancient Greek, for instance). The categories in (4) are the relevant ones:

(4) a. NOUN: case, number, gender (plus noun-class)

    b. VERB: person, number, tense, voice, aspect, mood

    c. ADJ: case, number, gender (plus possibly comparative/superlative).

        The way categories are expressed reveals Greek to be a fusional-synthetic language, with individual endings encoding several different grammatical categories all at once, e.g. the verbal

ending -*es* = 2nd person and singular and past, the verbal suffix -*tik-* = past and nonactive and perfective, nominal ending -*us* = accusative and masculine and plural (and *o*-stem), but not to an extensive degree (i.e. Greek is not polysynthetic). Still, there are some seemingly agglutinative structures in the language (e.g. (3a), if all the preverbal elements are affixes (see §3)) as well as some analytic formations that move Greek away from being a perfectly well-behaved fusional-synthetic language. For instance, the perfect tense is formed periphrastically, consisting of the verb 'have' (Greek *éxo*) plus a perfect formative (an invariant nonfinite form), e.g. *éxo lísi* 'I-have untied', and these parts can be separated, as in (5):

(5) éxi   o jánis   lísi

     have+3sg the John+NOM untied+PERF

     John has untied

Similarly, there are bipartite verbs, consisting of, for instance, the verb *káno* 'make' plus a nominal form, that describe a unitary activity/event and are even paralleled in some cases by monolexemic verbs, as in (6):[6]

(6) a. Den ton   káno   ústo

       not him+ACC make+1sg taste

       I don't care for him

    b. Den ton   ustáro

       not him+ACC like+1sg

       I don't care for him

     For the most part, though, the characterization of Greek as synthetic-fusional gives an accurate picture of the general structure of words and the expression of grammatical categories.

3. Various Types of 'Word' and Relevant Criteria and Tests

We are now in a position to begin to investigate various criteria and tests that might be brought to bear on the identification of 'word' in Modern Greek. It is assumed here that for Greek, the construct 'grammatical word' is based on 'word' as listed in lexicon, representing major syntactic

categories: noun, e.g. *spíti* 'house'; verb, e.g. *líno* 'untie'; adjective, e.g. *árosto-* 'sick'; preposition, e.g. *apó* 'from'. That is, except for bipartite verbs such as *káno γústo* in (6) above, there is generally nothing in Greek like verb + particle combinations of English, so that there is no reason to posit a level of 'grammatical word' different from 'lexical word' plus other independently needed machinery (e.g. inflections). Even combinations such as *káno γústo* involve two forms that occur independently in other contexts, and the meaning of the combination is roughly compositional ('make + taste' = 'have a taste (i.e. a liking) for'); at worst, they can simply be treated as Verb + Object idioms.

In such an approach, however, there are some representational issues that need to be addressed. First, with regard to inflection, following Lyons 1968, the lexical listing is *stem* (i.e., *lexeme*) and inflected forms (where they exist) are then the *grammatical words*. A relevant question here is the representation of the vexing 'little elements', many of which have grammatical function (as with the markers in the verbal complex) and thus could be considered *inflection*, and thus properly part of a *grammatical word*. Alternatively, one needs to consider instead if they are separate *grammatical words* in their own right, with their own lexical listings. Moreover, besides *grammatical word* as delineated here, one has to entertain the possibility that there may be a distinct level of *phonological word*, though this depends to some extent on how all the 'little elements' with grammatical values are analyzed; if they are inflectional affixes, then much of what might be called a 'phonological word' is simply created by regular word-formation and inflectional processes.

It is thus appropriate to begin an examination of tests and criteria pertaining to wordhood with various aspects of Greek phonology, in particular with regard to the segmental level, to phonotactics, to morphophonemics, and to suprasegmmentals and especially word accent. Moreover, these areas constitute the most interesting and fruitful lines of evidence for relevant criteria, since, as §3.6 indicates, morphological evidence alone is inconclusive.

3.1. Phonological factors — Segmental

A first consideration towards defining 'word' concerns the segments of Greek and especially which segments can occur where and in which types of words. The segmental inventory of Greek is given in (7)

(7)   p b f v   t d s z θ ð tˢ dᶻ   k g x ɣ   r l m n   j   a e i o u

However, all of these sounds can occur utterance-initially, so there is no test for wordhood based on possible initial segments. For final segments, the situation holds more promise, as there are some restrictions, although loan words now interfere with the probative value of such final segment restrictions. Still, a generalization can be formulated as in (8) regarding final segments for words that have been in Greek for more than about 100 years[7] and not from the archaizing high-style katharevousa register:[8]

(8)   Only -s, -n, and *VOWELS* are allowed word-finally in Modern Greek (for certain classes

   of words).

The extent to which recent loans and learned borrowings have altered that generalization is evident from the forms in (9) with other final segments:

(9)   a. foreign loans: *máts* '(football) match', *zénit* 'zenith', *tést* 'test', *fílm* 'film',

   asansér 'elevator', *básket* 'basketball'

   b. learned borrowings: *ántraks* 'coal, *íðor* 'water'.

Moreover, there is even a class of native Greek words (or word-like forms) with a wider range of possible word-final sounds, namely interjections, onomatopes, clippings, and acronyms, as in (10), which, like borrowings, violate (9):

(10)   *mats-mouts* 'kissing noise'

   tsak 'cracking noise'

   ax 'Oh, ah!'

   prokat (clipped from *prokataskevasména spítia* 'pre-fab(ricated houses)'

   PASOK (acronym for *panelínio sosialistikó kínima* 'Pan-Hellenic Socialistic Movement')

though it is not entirely clear that all such forms in (10), especially the onomatopes, are 'words' in some real sense.[9]   Thus the segmental level proves inconclusive regarding a characterization of

'word'; accordingly, we turn to the next level up in a phonological hierarchy, namely that of clusters.

3.2. Phonological Factors — Phonotactics of Clusters

Examining consonant clusters is somewhat more promising, since some clusters are found only word-internally and never word-initially or word-finally, [10]e.g. *....atlázi...* could not be lexically segmented into *...a # tla...* or *...atl # a...* and so could only be *#atlázi...* 'satin ...', while *...atmí...* could be *-a # tm-* (since word-initial *tm-* occurs, cf. *tmíma* 'department', thus possibly *(mikr)a tmí(mata)* 'small departments' or *...#atmí...* (e.g. *atmí* 'vapours') but not *...atm # í-....* Still, it seems unlikely that one would want to define 'word' in Greek as that entity which begins with sounds other than **tl-* (etc.) and/or ends with something other than *-tl*, *-tm* (etc.). It seems, therefore, that the level of phonotactics of clusters does not lead anywhere productive, and the restrictions on clusters may be simply descriptive generalizations that have little import toward the characterization of 'word'.

3.3. Morphophonemics

Even though clusters in general, viewed from a phonotactic standpoint, offer little insight here, there is one particular type of cluster that holds more promise: combinations of nasals plus stops. Examining these combinations leads into a consideration of morphophonemics and 'wordhood', addressed in this section.

3.3.1. Nasal-induced Voicing

The basic relevant facts concerning stops and nasals are as follows. The status of the plain voiced stops [b d g] in Greek is rather tricky. At the lexical level (what corresponds to 'grammatical word' in traditional terms), for many (now generally older) speakers, excluding recent loans, [b d g] occur by themselves only word-initially and occur medially only after a nasal; thus _b_rostá 'in front' but é_mb_oros 'merchant' (not **é_b_oros). Moreover, again excluding recent loans, there are

no cases word-internally of a nasal + voiceless stop (i.e. no cases of *VmpV*). But even for (some) such speakers, the initial stop can sometimes (perhaps rarely) be lightly pre-nasalized in some words, and medially, the preceding nasal consonant can be quite 'weak' and sometimes even absent (all subject to a complex of factors including addressee, style, speech rate, etc.),[11] i.e. [ᵐbrostá] / [éᵐboros] ~ [éboros], and for some (mostly younger) speakers, the nasal is (almost) categorically absent. This distribution, even for older speakers, has been somewhat disrupted by loan words, so that for some speakers, [robót] 'robot' has only a voiced stop and [sampánja] 'champagne' shows no medial voicing (while for others, there can be voicing in such loans, e.g. [sambánja], and for yet others borrowed medial voiced stops can be 'propped up' with a nasal, e.g. [rombót] or [roᵐbót]).

 This situation is complicated by facts bearing involving combinations of the 'little elements of (2) with a 'host' element, for in these, final nasals induce voicing on following voiceless stops at boundaries (and the nasal undergoes place assimilation); e.g.:

(11) /ton patéra/　　—> [tom batéra]

　　the father/ACC

　　/tin píraksa/　　—> [tim bíraksa]

　　her I-teased

　　/ʒen pirázi/　　—> [ʒem birázi]

　　not it-matters

Optionally (again subject to a complex of factors), the nasal can be weak or even absent, but also, for some speakers, sporadically, there is no voicing whatsoever and sometimes just deletion of the nasal, e.g. [ti(n) píraksa] I-teased her.[12]

 Some linguists take the voicing in these combinations as evidence that a level of *phonological word* must be recognized, combining grammatical (lexical) words into phrases in which certain phonological effects are located, and note that the voicing effects, while similar to what is found word-internally, are not identical (the [ti píraksa] outcome is not found in medial position); for such linguists, the 'little elements' are 'clitics'. Alternatively, if the 'little elements' are affixes, one could point to the similarity of the 'boundary' phenomena to word-internal

combinations with voiced stops, and treat the [ti píraksa] outcome as part of the idiosyncrasy of affixal combinations (thus considering the construct as a *morphological word* or perhaps *morphosyntactic word*, with the affixes as the realization ('spell-out') of various features, such as [+negation] or [+3SG.F.DIR.OBJ])

Still, some voicing can be induced by what must be a word in any approach. For instance, for some speakers (maybe only in fast speech), the complementizer *án* 'if' can trigger voicing on a following stop, as in /*án p*ó/ 'if I-say' —> [*ám b*ó]. Such facts might tip the balance in favor of the (grammatical-words-combining-into-a-) phonological-word approach and against the affixal/morphological-word approach, although counterbalancing the possibility of voicing here is the further fact that for some speakers as well, the usual outcome of /án pó/ is [*ám p*ó], definitely not a word-internal type outcome. Moreover, in any case, it can never have the nasalless realization **[a *b*o], even for speakers who usually do not have a nasal with a voiced stop word-internally. Therefore, there is indeed *some* difference between combinations with articles, pronouns, etc. and combinations with more clear-cut grammatical words (contrast *(na) ti(m) bó* should I-tell her with *ám pó*). This might well be taken by some as evidence for an intermediate construct such as 'clitic' or simply as atypical word- or atypical affix-behavior.

Yet, there is another way to view all this, in the light of still further facts. The genitive weak pronoun used for marking indirect objects is formally identical with the genitive weak pronoun used for marking possession (cf. (2b, 2f)), but they show different behavior vis-à-vis nasal-induced voicing. In particular, the object pronouns (which are affix-like in showing idiosyncrasies, high selectivity, strict ordering, etc. — see Joseph 1988, 1989, 1990) are voiced post-verbally after the imperative singular of *káno* 'do, make', the only context where a weak object pronoun occurs after a nasal-final host in the standard language, as in (12):

(12) kán   tu   mja xári —> [ká*(n) d*u ...]

     do+2SG+IMPV   him+GEN a-favor

     Do a favor for him!

However, the homophonous possessive pronoun *tu* 'his' in *ton antrópon tu* 'of his men' (literally, 'of.the.men+GEN+PL of.him') does not undergo voicing — *[ton antrópo*(n) d*u] is impossible.[13] Most treatments label *both* of these instances of *tu* as 'words' (e.g. 'clitic words'), but their differential behavior here is reason for separating them, despite their homophony, and thus possibly also reason for treating the object pronouns as affixes and the possessives as words.[14] At the least, voicing should probably be separated into a couple (or more) (sub-)processes, and one possible generalization for voicing is that prosodically weak words cannot undergo post-nasal voicing (maybe more specifically, not induced by a verbal 'host').[15]

Thus, nasal-voicing in Greek, a phenomenon which has been taken by some to motivate a level of phonological word and analyses in which there is a class of 'clitics' distinct from affixes and grammatical words, need not be interpreted in that way. Some of the behavior is in fact consistent with a view that starts just with words and affixes, though recognizing the possibility of atypicality for some instantiations of these, so that the morphophonemics of nasal voicing can be treated rather as evidence of affixal status for some of the 'little elements'.[16]

3.3.2. Morphophonemic Irregularities

One further issue pertaining to morphophonemics and what they may say abaout wordhood in Greek is the claim made by Philippaki-Warburton & Spyropoulos (1999: 65n.5) that 'in Greek ... there are no ... special irregularities in the morphophonology of the clitic[pronoun]s'. The presence of various sorts of idiosyncratic features is characteristic of affixes and morphological combinations, and less expected with syntactically distributed elements (i.e., words), as noted by Zwicky & Pullum 1983, so Philippaki-Warburton & Spyropoulos use their claim as an argument against treating the weak pronouns as affixal; they say that since there is no idiosyncrasy, these elements are not affixal. However, their argument fails in two ways. On the one hand, it is not the case that all affixes necessarily show idiosyncrasies — the presence of idiosyncrasies may be probative but their absence says nothing in and of itself. On the other hand, it turns out that there in

fact are various irregularities in the morphophonology of the weak pronouns that Philippaki-Warburton & Spyropoulos overlook.

For instance, in the combination of 2SG.GEN *su* + any 3rd person form (necessarily accusative since two genitives cannot co-occur), the *u* may be elided, thus: *su to stélno* 'to-you it I-send' may surface as *sto stélno* 'I send it to you'. However, there is no *general* process of Standard Modern Greek that elides (unaccented) -*u*- in such a context; there is a regular process eliminating unaccented high vowels in northern dialects, but in the Standard language — based on a southern dialect — there is deletion of unstressed high vowels only in fast speech. Thus, one might imagine that some form of that process is at work in *su to stélno* —> *sto stélno.*, but that cannot be the case. A deleted *u* typically leaves a 'mark' on a preceding *s* in the form of rounding, e.g. /sutárizma/ 'shooting' becomes [sᵂtárizma]; importantly, though, this rounding never happens in the reduced form of the indirect object marker *su*, i.e. [sto stélno] but not **[sᵂtostélno]). Thus the elidability of the -*u*- in combinations like *su to (stélno)* is not attributable to a general property of Greek phonology but rather is a feature of the particular combination of *su* with a third person pronoun, i.e. it is a morphological irregularity associated with *su*, contrary to Philippaki-Warburton & Spyropoulos's claim.

So also in the combination of any 3rd person form with the markers *na* and *θa*, the initial *t*- of the pronoun may (optionally, with considerable idiolectal variation) be voiced to [d]; thus *θa to stélno* 'FUT it I-send' can optionally surface as *θa do stélno* 'I'll be sending it', even though intervocalic *t* in Greek is not usually distinctively voiced and *na* and *θa* do not canonically end in -*n* (the typical voicing element in Greek — see above in §3.3.1); *θa* did end in a nasal in earlier stages of Greek but *na* never did and in any case there is no sign of a nasal before a vowel (where it would be expected if there were one with these forms canonically) — the contrast of *θa stélno* 'I will be sending' but *θa alázo* 'I will be changing' (not **θan alázo*) with *δe stélno* 'I do not send' but *δen alázo* 'I do not change' (not **δe alázo*) is instructive in this regard. Thus the voicing triggered by *na* and *θa* on 3rd person weak pronouns is an idiosyncrasy of these combinations, countering Philippaki-Warburton & Spyropoulos's claim.

Therefore, there is indeed morphophonological idiosyncrasy associated with the weak pronouns. Moreover, Philippaki-Warburton & Spyropoulos (1999: 65n.5) themselves do recognize that there are combinatorial restrictions, for instance, no first and second person combinations (i.e. no way of saying 'He is sending you to me' using weak pronouns), as well as ordering restrictions. All of these observations therefore point to an affixal analysis, and thus are consistent with the general approach taken here and with the conclusions in §3.3.1 above concerning nasal voicing and §3.5 below concerning accent placement.

3.4. A Further Segmental Phenomenon

There is one further segmental phenomenon in Greek, referred to by Philippaki-Warburton & Spyropoulos (1999: 54) as 'euphonic -*e*', that is worth considering here, since they give it as an argument for taking some of the 'little elements', specifically the weak pronouns, as words and not as affixes. This turns out to be particularly interesting to consider, for wider range of data indicates that just the opposite interpretation is called for.

Philippaki-Warburton & Spyropoulos claim 'there is a strong preference for open syllables in word-final position [see (10) above]. When a word terminates in final -*n*, there is a tendency for a euphonic -*e* to be added after it in order to obtain a word final open syllable', e.g. *milún* / *milúne* 'they speak'. Observing further that 'affixes ... have no need for such a constraint nor do they show such a tendency' and noting that 'clitic [i.e. weak] pronouns may appear with such final euphonic -*e*', e.g. *tone vlépo* 'him I-see' (acceptable also: *ton vlépo*), they offer these facts as an argument for word-level status for the weak pronouns

However, there is an unsettling vagueness in the reference to a 'tendency' — Philippaki-Warburton & Spyropoulos themselves admit that 'not all words ending in -*n* will add a euphonic -*e*' — as well as an their unfounded assertion as to causality when they state that 'those that do are *clearly* [emphasis added/BDJ] motivated by this preference for word final open syllable'. More important, though, their argument can be countered empirically.

First, there are indeed words ending in *-n* that never take 'euphonic-*e*', e.g. *betón* 'cement' (never **bétone*), *enïjaféron* 'interesting/NTR.SG' (never **enïiaférone*), as well as grammatical elements which the authors themselves want to call words that do not take *-e*, e.g. the indicative negator *ïen* 'not'. Thus, it is not at all clear that 'euphonic *-e*' is a useful indicator of wordhood.

Second, the real generalization is not that words can take this *-e* but rather that inflexional morphemes do, or rather can, since not all actually do. The best cases of euphonic *-e* come with, various verbal and nominal grammatical endings, e.g., 3PL.PST *-an*, 3PL.PRES *-un*, and GEN.PL *-on* (among some others). Therefore, 'euphonic *-e*' would provide an argument that accusative singular weak pronouns *ton/tin* are inflexional morphemes instead of words. And, this generalization would explain why *betón* and *enïjaféron* do not take the *-e*, since the *-n* in those elements is part of the word-stem, and not part of an inflexional marker.[17] Moreover, the failure of negative *ïen* to take *-e* would instead be an index of idiosyncrasy, and thus would be consistent with, and even argue for, an affixal analysis of negation.[18]

While there are other phonological phenomena involving segments that might be investigated, most seem to be inconclusive at best.[19] However, an area of considerable interest, as well as controversy, involves Greek suprasegmentals, in particular, the placement and nature of the stress accent in combinations involving the 'little elements'.

3.5. Suprasegmental issues

The basic facts about accent in Modern Greek are as follows: in general, there is at most a single main stress accent in a grammatical word, underlyingly (in its lexical form), and it must fall on one of the last three syllables. The feminine nouns in *-a* show all the possibilities: *peripétia* 'adventure' vs. *ïimokratía* 'democracy' vs. *omorfiá* 'beauty'. When a clear inflectional suffix is added to a stem, it can trigger a rightward accent shift in a stem that has (lexical) antepenultimate accent, e.g.:

(13) ónoma   name (NOM/ACC)

     onóma-tos   of a name (GEN)

Such facts have traditionally been treated as consistent with a principle that the accent in a grammatical word being no farther from the end of the word than antepenultimate syllable. When a pronoun (including the possessives) is added to the end of a word with antepenultimate accent, however, it triggers the addition of an accent, which becomes the primary accent, on the syllable before the pronoun, and a concomitant reduction of the (lexical) antepenultimate accent to a secondary accent:

(14) to ónoma the name   / to ònomá tu the name his (i.e., his name)

    kítakse! Look! (IMPV.SG) / kìtaksé me Look-at me!

Such facts have also traditionally been treated as induced by ban on accent farther from the end of a word than the antepenultima, with the reduction triggered by ban on more than one main stress in a word.[20]

      For linguists inclined to treat pronouns as word-like entities of some sort (e.g. 'clitics', with their own maximal projection in the syntax), these facts have motivated a higher level construct such as 'prosodic word' (implicit, e.g., in the accounts of Arvaniti 1991, 1992) or 'clitic group' (e.g., Nespor & Vogel 1986), or perhaps simply 'phonological word', since the pronouns behave differently from clear affixes (which shift accent) and from clear word combinations (which have no accentual effect); recall also §3.3.1 regarding nasal-induced voicing and how that can be used as a basis for defining 'phonological word', e.g. with article + noun (and other) combinations.

      Still, these accentual facts in and of themselves, despite their being consistent with nonaffixal status for the weak pronouns, are not conclusive evidence for that categorization, and in fact can just as well be taken as evidence for the opposite classification. That is, there are several different idiosyncratic accent requirements with affixes, e.g.:

(15)a. the neuter GEN.SG *-tos* requires accent placement two syllables to the left of *-tos*, e.g.

      'name' *ónoma / onómatos*, 'verb' *ríma / rímatos*

   b. the neuter GEN.PL *-ton* requires accent placement one syllable to the left of *-ton*, e.g.

      'name' *ónoma / onomáton*, 'verb' *ríma / rimáton*

    c. the IMPERFECT marker *-ús-* always attracts the accent onto it (whereas the alternate

        IMPERFECT marker *-aɟ-* does not necessarily attract the accent, being accented only if

        antepenultimate), e.g. *filó* 'I kiss' / *filúsa ~ fílaɟa* 'I was kissing' (cf. 1PL *filúsame ~*

        filáɟame 'we were kissing')

    d. the 1PL *-me* is never accented and requires no particular accent placement, i.e. it is

        accentually inert

This range of accentual effects associated with affixes means that the accent addition with weak

pronouns, if affixal, could simply be one such idiosyncratic effect an affix can have.

      The argumentation needs some further development, but the case can be made. Admittedly,

the possessive pronouns also provoke accent addition. Thus, if they are 'clitics', or atypical, i.e.

prosodically special words, one could argue that the weak pronouns should fall into same category.

Otherwise, the argument would go, the grammar would have duplication through the multiple

statements needed for accent addition, in that some affixes would do it and so would 'clitics' (or

some words, as the case may be).

      However, what makes this an interesting case is that there are some differences between

weak pronouns and possessives, for instance with regard to nasal-induced voicing, as shown in

§3.3.1 by the difference betweeen *ká(n) du* 'do for him' (cf. (12)) and *anʈrópon tu* (**anʈrópo(n)*

du) 'of his men'. Thus somehow these two elements need to be differentiated in the grammar: if

accent addition with the possessives and weak pronouns is consistent with their both being words,

the post-nasal voicing facts are consistent with their each being a different kind of element. Of

considerable importance here is the fact that there are prosodically weak words, e.g. the attitudinal

marker *de* (cf. (2e) and (3d) above) with different accentual properties. In particular, *dé* always

'leans' on the end of a host but never provokes accent addition (e.g. *ðokímase* 'try!' (IMPV.SG) /

ðokímase dé 'try already!' / *ðokìmasé de); therefore accentually, *de* and the possessives like *tu*

have to be differentiated, so that even within the class of words, accentually distinct behaviors must

be stipulated. If one were to say that possessives are 'true' clitics, based on their accentual

behavior is the reason, then presumably weak pronouns belong in the same class, since they behave

accentually like the possessives. What then of the post-nasal voicing differences (cf. (12))?

Should the grammar recognize four (or even more) distinct morphosyntactic elements: word vs.

possessive-type 'clitic' vs. weak-pronoun-type 'clitic' vs. affix?

      A solution here is to follow the strict categorization schema outlined in §2.1 and to

recognize only affix and word as basic constructs, while at the same time setting some tokens apart

within those categories by way of recognizing different behaviors and realizing that affixes can

show various idiosyncrasies. This approach may also mean that one should give up on trying to

generalize over accentual behavior as a way of differentiating basic morphosyntactic element types,

though recognizing differences within larger types.

      Of interest here, but not, strictly speaking, relevant for Standard Modern Greek is the fact

that some dialects (but not standard Greek) have accent addition with some disyllabic forms that

ostensibly are affixes. For example, in northern Greek one finds *érxu-mi* 'come/1SG' / *érxu-másti*

'come/1PL' (vs. Standard Greek *érxome* / *erxómaste*). While one could of course say that these

endings have been reanalyzed as clitics, that would seem to be begging the question of how to

identify such entities in the first place.[21]

      Thus, the upshot regarding accent and wordhood is that while it does admittedly provide a

basis from which one might motivate an affix vs. clitic distinction, or a grammatical word vs.

phonological word distinction, it is not a clean basis. The relevance of this observation for a general

theoretical framework for dealing with such elements is taken up in §4.

3.6. Some Possible Morphological Criteria

With various phonological criteria for wordhood examined, it is possible to move up the

grammatical hierarchy to see if there are any purely morphological criteria that are relevant here. As

it happens, some of the observations from the previous sections can be 'tweaked' a bit to yield a

morphological generalization about wordhood that is limited in scope but not completely

unrevealing.

First, it should be noted that there are some borrowed nouns and adjectives that are invariant with no inflection whatsoever, e.g.:

(16) to ble yot   // tu   ble   yot // ta   ble   yot

     the-blue-yacht+NOM   of-the-blue-yacht+GEN   the-blue-yachts+PL

However, there are no uninflected verbs. Therefore, a finite set of verbal endings (marking person, number, tense, etc.) allows for verbs to be uniquely identified, at least paradigmatically (i.e., in relation to other forms). Thus while [pó] could conceivably be a noun (cf. [yó] 'son+ACC'), once it is linked with [pís]/[pí]/[púme] etc. (2sg/3sg/1pl), it is clearly identifiable as a verb, as a member — specifically 1SG — of the paradigm of the perfective forms of 'say'. Moreover, if one ignores uninflected nouns and adjectives, a generalization is possible about the shape of a subclass of words, namely INFLECTED words:

(17) All inflected words in Greek end in *-s* or *-n* or a vowel.

Still, however valid (17) may be, ending in *-s* or *-n* or a vowel is not in itself an identifying mark of a word, since many clear inflectional and derivational affixes end in *-s* or *-n* or a vowel (cf. 2sg *-s* as in *pís*, 1pl *-me* as in *púme*, etc.), and some UNINFLECTED words do too, e.g. *tóte* 'then', *méxris* 'up to', etc.). It is not at all obvious therefore that morphological considerations offer a significant generalization that has any validity for determining or defining (or refining) the notion of 'word' for Greek.

4. Summation Regarding Wordhood

The most controversial — and thus the most interesting — aspects of the determination of wordhood in Greek hinge on the analysis of the various grammatical elements presented above in (2) and (3). Some of those elements have been examined here and have been argued to be affixal in nature, and not independent or even prosodically weak words. Further arguments for affixal status for these elements are possible,[22] as is a determination concerning the word or affixal status of all of those not systematically treated here. Still, the evidence discussed here concerning the weak pronouns especially gives a glimpse of what can be done with a highly restrictive set of

assumptions about wordhood. This is so even if some of the resulting analyses — as with accent placement — are a bit messy, so to speak, in that some stipulations are needed, e.g. as to accent addition being one of several accentual effects associated with affixation rather than a feature that falls out automatically from some other sets of facts.

It can be argued, though, that even with some messiness on the side of the word-and-affix-only approach, it is not at all clear that there is anything to be gained by adopting an analysis that is based on the multiplication of the number of basic morphological entities that linguistic theory must recognize. That is, there is a trade-off between, on the one hand, the neater, more constrained system one has with the recognition of only word vs. affix as basic morphological constructs and the few stipulations that are needed in such a system, and, on the other hand, a system with a greater number of basic morphological entities but perhaps fewer stipulative statements. It may not be an even trade-off, for that matter, since one can argue that the default assumption in all instances should be to avoid multiplying basic units — since some stipulation is always needed — until it is convincingly demonstrated that such an approach cannot work. That is, recognizing a third type of element, e.g. 'clitic', as a basic morphological construct should always be at best a last resort, a highly marked — and thus 'costly' — analysis.[23] I would argue that the Greek facts do not compel one to recognize such a marked construct; all relevant facts can be accounted for under a system with just words and affixes, and the independently-needed scale of typicality within each construct.

It may well be, of course, that more distinctions among elements are needed, and indeed, even the approach advocated here, with words and affixes, and degrees of typicality for each, recognizes that on the surface, there can be more than two kinds of entities. Underlyingly, however, even an atypical element, it is claimed, must be categorized as either an affix or a word, however much it may deviate from other members of its category. Under this approach, this merely reflects the 'messy' reality, but the grammar has to make the difficult decisions, so to speak, and give definitive classifications. That in effect is the job of the grammar. The situation described here is thus analogous to what is done routinely with regard to sounds: it is often the case that numerous

and physically diverse surface phones are categorized as the same at an abstract level of analysis referred to as the 'phoneme'; that is, the grammar imposes discrete category membership on elements with superficially different properties. So also with the classification of what are here, e.g., called typical and atypical affixes as members of a single basic morphological type.

5. Conclusion

In addition to all the foregoing argumentation, with its synchronic analytic basis, an entirely different area of linguistic investigation, that of diachrony and the examination of language change, can be mined for some added perspectives concerning 'word' as a grammatical construct. As it happens, there are three lines of evidence that emerge from the way languages change that can be brought to bear on the identification of 'word'. These are discussed here, by way of conclusion, with illustrative examples from Greek where possible.

First, the notion 'word' might have some value in contact situations, in terms of helping to define what is borrowed. Although phrases can be borrowed (e.g. Greek has borrowed Turkish *anadan babadan* 'from-mother from-father' as *anadam babadam* meaning 'from way back, for generations'), borrowing of individual words is by far the most common type of borrowing. Moreover, while affixes can be borrowed (e.g. Greek borrowed an Italian diminutive suffix and hellenized it to give-*utsiko*-; the Turkish occupational suffix *-cI / -çI* was borrowed as *-tsis / -dzis*; and the English plural *-s* has been borrowed), the medium for borrowing of affixes is most likely the *word*. For example, the *-s* plural in Greek is restricted to words of English origin, e.g. *ta tests* 'the tests', and there are also some cases of *-s* being borrowed and used as a part of the stem, as with *to klips* for '(the) clip'. While it is true that borrowed affixes can appear on words other than their original word that brought them into the language, so that *-tsis /-dzis* (from the Turkish occupational suffix) is highly productive in Greek now and not just limited to originally Turkish words (note, e.g. *o taksi-dzís* 'the taxi-driver'), the occurrence of an affix to such novel contexts need not be taken to mean that the affix by itself was borrowed; rather, it can be viewed as resulting from the extraction of the affix out of particular instances of the affix attached to a borrowed word,

i.e. as a perfectly ordinary case of morphological segmentation and analogical spread based on the analysis by speakers of word-level units in their language (whatever their ultimate origin). Thus the distinction between words and affixes seems to play a role in language contact.

Second, the notion of 'lexical diffusion' (Wang 1969, among others) claims that the vehicle for the spread of sound change is the word, or rather, the lexical entry, sound changes are found in endings, prefixes, etc. as well as in unanalyzable units. There is no relevant evidence from Greek here, but generally speaking, it can be argued that there need not be a separate mechanism of change, i.e. 'lexical diffusion' — distinct from analogy and dialect borrowing — that has to be recognized; that is, analogy and dialect borrowing together can give a diffusionary effect in the realization and spread of sound change, thus relegating a putative process such as lexical diffusion to epiphenomenal status (see Joseph 2000b). However, if one believes in lexical diffusion, then it may offer a useful handle on defining/determining 'word'.

Third, and finally, there are many sound changes which come to be restricted to occurrence at word-boundaries. While that in itself might be taken to suggest an importance to 'word' as a theoretical construct, it may well be that such conditioning on sound changes does not reflect the original state of affairs with any given change. That is, following the Neogrammarian view that sound changes are not in and of themselves conditioned by nonphonetic factors, and given that word-boundaries are not phonetic entities, any instances of a word-boundary-conditioned sound change would have to be the result of reanalysis and generalization of the change. One possible source for such reanalysis and generalization is from utterance-final (or utterance-initial) position to word-final/initial position; utterance edges are phonetically defined (e.g. by silence, by the vocal folds standing at rest, etc.) and word edges of course can coincide with utterance boundaries. Another source is an original syllabic basis for change, since word onsets necessarily give possible syllable onsets and word-initial position can be utterance-initial position where no resyllabification is possible. Thus, even if a sound change might originate in such a way as to be oblivious to word boundaries (per Neogrammarian principles), it seems that speakers often impose a word-boundary basis onto the effects of a sound change, altering (i.e. reanalyzing) the original basis for the change;

often also, linguists studying the aftermath of a change only see the results of the reanalysis and generalization and formulate (erroneously) the historical statement of the change in terms of word-boundaries.[24]   An example from Greek is the loss of *–n* in word-final position — since *n* before some consonants, particularly the fricatives, was lost word-internally, as in *nífi* 'bride' from Ancient Greek *númphē* or the widespread *áTropos* 'man' from earlier *ánTrōpos*, the loss of word-final *n* (as in earlier *peðín* 'child' —> *peðíØ*) can be understood to be the generalization of an original loss of *–n* before word-initial fricatives (e.g. *to peðín fandázete —> to peðíØ fandázete* 'the child imagines') to a broader set of contexts.

What all these cases show is that words really do seem to matter to speakers; therefore, linguistic theory must take them into account, and the question of how to identify and delineate this construct in general is a serious challenge to linguistic theory that cannot be ignored. The present examination of these issues in individual languages such as Modern Greek is thus offered here as a (partial) contribution to what must be an on-going cross-linguistic investigation.

References

Arvaniti, A. 1991. *The Phonetics of Modern Greek Rhythm and its Phonological Implications*. Ph.D. Dissertation, University of Cambridge.

Arvaniti, A. 1992. 'Secondary Stress: Evidence from Modern Greek', pp. 398-419 of *Papers in Laboratory Phonology II: Gesture, Segment, Prosody*, edited by G. Dogherty & D. R. Ladd,. Cambridge: Cambridge University Press.

Arvaniti, A. & B. Joseph. 1999/To appear. 'Variation in voiced stop prenasalization in Greek', *Historical Linguistics: Ohio State University Working Papers in Linguistics* 52.203-233 (To appear also in *Glossologia, A Greek Journal for General and Historical Linguistics* Vol. 11 (2000)).

Booij, G. 1996. 'Review of Nevis et al., eds. *Clitics: A comprehensive bibliography*, 1892-1991', *Yearbook of Morphology* 1995.180-181.

Delopoulos, G. 1977. 'To vório iðíoma sti mesimvriní rosía' ['The northern dialect in southern Russia'], pp. 263-304 of*: A' Simbósio γlosolojías tu vorioelaðikú xóru.* Thessaloniki: Institute for Balkan Studies.

Everett, D. 1996. *Why there are no clitics : an alternative perspective on pronominal allomorphy*. Dallas: Summer Institute of Linguistics.

Everett, D. 2000. 'Why There Are no Clitics: On the Storage, Insertion, and Form of [Phi]-Features', pp. 91-114 of *Lexical specification and insertion*, edited by P. Coopmans, M. Everaert, & J. Grimshaw. Amsterdam: John Benjamins Publishing Co.

Ferguson, C. 1959. 'Diglossia', *Word* 15.325-340.

Hock, H. 1976. 'Review Article on Anttila 1972', *Language* 52.202-220.

Janse, M. 1994. 'Clitics and Word Order Since Wackernagel. One Hundred Years of Research into Clitics and Related Phenomena'. *Orbis* 37.388-410

Janse, M. 1997. 'Review of Nevis et al. (1994) *Clitics: A comprehensive bibliography*, 1892-1991'. *Word* 48.1.99-107.

Joseph, B. 1988. 'Pronominal Affixes in Modern Greek: The Case Against Clisis', pp. 203-215 of *Papers from the 24th Regional Meeting, Chicago Linguistic Society*, edited by D. Brentari et al. Chicago: Chicago Linguistic Society.

Joseph, B. 1989. 'I erminía merikón voríon típon tis prostaktikís katá ti simeriní morfolojikí θeoría ['The interpretation of several northern forms of the imperative according to current morphological theory'], *Eliniki Dialektolojía* 1. 21-26.

Joseph, B. 1990. 'The Benefits of Morphological Classification: On Some Apparently Problematic Clitics in Modern Greek', pp. 171-181 of *Contemporary Morphology*, edited by W. Dressler, H. Luschützky, O. Pfeiffer, & J. Rennison. Berlin: Mouton de Gruyter.

Joseph, B. 1994. 'On Weak Subjects and Pro-Drop in Greek', pp. 21-32 of *Themes in Greek Linguistics (Papers from the First International Conference on Greek Linguistics, Reading, September 1993)*, edited by I. Philippaki-Warburton, K. Nicolaidis, & M. Sifianou. Amsterdam: John Benjamins Publishing Co.

Joseph, B. 2000a. 'Is Balkan Comparative Syntax Possible?' To appear in *Balkan Syntax in a Comparative Light*, edited by M. Rivero & A. Ralli. Oxford: Oxford University Press.

Joseph, B. 2000b. 'Is there Such a Thing as 'Grammaticalization'?' To appear in *Language Sciences* (Special Issue on Grammaticalization, edited by L. Campbell).

Joseph, B. 2000c. 'Dialect Evidence bearing on the Definition of 'Word' in Greek', paper presented at Conference on Greek Dialects and Linguistic Theory, Patras (10/16/00).

Joseph, B. 2001. 'Morphologization from Syntax'. To appear *in Handbook of Historical Linguistics*, edited by B. Joseph & R. Janda. Oxford: Blackwell Publishers.

Joseph, B. To appear. *The Modern Greek Weak Subject Pronoun* τος *— Its Origins and Implications for Language Change and Language Structure: A Study in Grammatical Change*. To appear in Innsbrucker Beiträge zur Sprachwissenschaft series, Universität Innsbruck.

Joseph, B. Forthcoming. 'On 'Word' in Greek: A Reply to Philippaki-Warburton & Spyropoulos 1999', Ohio State University ms.

Joseph, B. & R. Janda. 1999. 'The Modern Greek Negator μη(ν)(-) as a Morphological Constellation', pp. 341-351 of *Greek Linguistics: Proceedings of the 3rd International Conference on Greek Linguistics*. Athens: Elinika Gramata.

Joseph, B. & I. Philippaki-Warburton. 1987. *Modern Greek*. London: Croom Helm.

Kazazis, K. 1992. 'Sunday Greek Revisited', *Journal of Modern Greek Studies* 10.1.57-69.

Koerner, E.F.K. & R.E. Asher, eds. 1995. *Concise history of the language sciences : from the Sumerians to the cognitivists*. New York: Pergamon.

Lausberg, H. 1956-1962. *Romanische Sprachwissenschaft*. Berlin : de Gruyter.

Lyons, J. 1968. *Introduction to Theoretical Linguistics*. Cambridge: Cambridge University Press.

Nespor, M. & I. Vogel. 1986. *Prosodic Phonology*. Dordrecht: Foris.

Nevis, J. & B. Joseph. 1993. 'Wackernagel Affixes: Evidence from Balto-Slavic', pp. 93-111 of *Yearbook of Morphology* 1992.

Nevis, J., B. Joseph, D. Wanner, A. Zwicky. 1994. *Clitics: A Comprehensive Bibliography 1892-1991*. (*Amsterdam Studies in the Theory and History of Linguistic Science, Series V: Library & Information Sources in Linguistics*, 22). Amsterdam: John Benjamins Publishing Co.

Newton, B. 1972. 'The Dialect Geography of Modern Greek Passive Inflections', *Glotta* 50.3-4.262-289.

Philippaki-Warburton, I. & V. Spyropoulos. 1999. 'On the boundaries of inflection and syntax: Greek pronominal clitics and particles', pp. 45-72 of *Yearbook of Morphology 1998*.

Posner, R. 1996. *The Romance Languages*. Cambridge: Cambridge University Press.

Rivero, M.-L. 1992. 'Adverb incorporation and the syntax of adverbs in Modern Greek', *Linguistics and Philosophy* 15.289-331.

Robins, R. H. 1993. *The Byzantine Grammarians. Their place in history* (*Trends in Linguistics. Studies and Monographs*, 70). Berlin: Mouton de Gruyter.

Smirniotopoulos, J. & B. Joseph. 1998. 'Syntax versus the lexicon: incorporation and compounding in Modern Greek', *Journal of Linguistics* 34.447-488.

Wang, W. 1969. 'Competing Changes as a Cause of Residue', *Language* 45.9-25.

Zwicky, A. 1985. 'Clitics and particles', *Language* 61.2.283-305.

Zwicky, A. 1994. 'What is a clitic?', pp. xii-xx of Nevis et al, 1994.

Zwicky, A. & G. Pullum. 1983. 'Cliticization vs. Inflection: English *n't*'. *Language* 59.3.502-513.

[1] The many participants at the International Workshop on the Status of 'Word' offered lively discussion of the issues contained herein and comments that I benefitted greatly from. I would like to thank Amalia Arvaniti and Giorgos Tserdanelis for their help with some of the data and Rich Janda for healthy criticism of various notions presented here. The usual disclaimers as to their complicity hold.

[2]See, e.g., Robins 1993 for discussion of the Greek grammatical tradition, especially for the Post-Classical language, and the relevant articles in Koerner & Asher 1995.

[3]As I found out when I was part of a project to create a bibliography on clitics (Nevis et al. 1994) with some 1500 entries covering the period up to 1991 but with several unfortunate omissions, as reviewers of the book quite rightly pointed out (see especially Booij 1996, Janse 1994, 1997).

[4] See also Everett (1996, 2000) for a similar approach in which there are no clitics, though for reasons different from Zwicky's.

[5]If this term had some empirical content, that is!

[6] There are two other types of ostensible multi-word units that deserve mention here, though they will not be treated systematically. First, as John Henderson has reminded me, Greek has word-level units, discussed first by Rivero 1992, that are composites of noun or adverb stems with verbs, e.g. *ksanavlépo* 'I-again-see' (i.e. 'I see again') (cf. *vlépo ksaná* 'I-see again'). These are best treated simply as lexically derived compounds (Smirniotopoulos & Joseph 1998); they behave with respect to inflection (e.g. with the grammatical "little elements" or with person/number marking) just like noncompound verbs. Second, there are nominal compounds that consist of two nominal words (not stems), each of which is capable of inflection, e.g. *xóra-mélos* 'member-country (e.g. of an alliance)' (literally: 'country – member'), whose nominative plural form is *xóres-méli*, with both parts inflected. These are admittedly difficult to analyze as to their word-level status; see Joseph & Philippaki-Warburton (1987: 227-228) for discussion, including the fact that some such compounds show inflection only on the first member.

[7]The reason for this temporal parameter is that in the 20th century, presumably owing to different attitudes on the part of native speakers of Greek with regard to nativization of loan words, literally hundreds of loans, especially from French in the first half of the century and later from English, have entered the language with only minimal phonological adaptation.

[8]This distinction is necessary owing to the sociolinguistic situation prevailing throughout most of Post-Classical Greek but with particular intensity in the 19th and 20th centuries, in which an archaizing, high-style form, 'katharevousa' and a more colloquial, stylistically lower form, 'demotic', competed in a classic diglossic situation (see Ferguson 1959). To some extent, both this

distinction and that concerning the age of a loan mentioned in footnote 7 reflect a linguist's somewhat omniscient perspective, not necessarily a naive native speaker's.

[9]One can of course legitimately ask whether forms such as *mats-mouts*, *ax*, etc. are 'words' While they can stand as independent utterances and in some sense are 'minimal syntactic units', they are functionally different from *spíti*, *líno*. A functionally based characterization of 'word' that would exclude interjectional utterances might be problematic, since some (apparent) interjections are 'quasi-grammatical', e.g. the one-word prohibitive utterance *mi*! 'Don't!', which shows a synchronic connection (in a complicated way — see Joseph & Janda 1999, Joseph 2000a) to the bound subjunctive negator *mi(n)* (see (3b))

[10]I say 'word-initial" etc. here even though, to avoid circularity, reference should be made to 'utterance-initial' and 'utterance-final' occurrences of a given cluster.

[11]All of the hedging in these statements is necessary due to the complex sets of sociolinguistic conditions attendant on the nasal + stop realizations; see Arvaniti & Joseph 1999/To appear for some discussion and literature. Given the variation, it is difficult to describe the status of [b d g] for the Modern Greek speech community taken as a whole.

[12]Such forms probably reflect the effects of hypercorrective pressures (see Kazazis 1992) or even spelling pronunciations, but such explanations alone of their occurrence are not enough to warrant discounting them.

[13]As with all aspects of the nasal-voicing facts, there is some variation from speaker to speaker concerning these judgments, but they are quite robust for speakers I have consulted.

[14]One can note as well that the possessives are unaffix-like in being able to move around within the noun phrase — both *o kalós fílos tu* the good friend of-him and *o kalós tu fílos* the good of-him friend are acceptable for 'his good friend'; while one could say that the possessives thus are true clitics, this might just be a manifestation of atypical behavior.

[15]•This generalization is admittedly not overly broad, but it does differentiate possessives from weak object pronouns. If accurate, moreover, it allows for a determination of the status of the weak

nominatives (cf. Joseph 1994, To appear), e.g. *tos* (cf. (2c, 3e)), since the *t-* of *tos* can, and in fact must, be voiced in its post-nasal occurrence with the predicate *pún* 'where is/are?', i.e. *pún dos* 'Where is he?' (not **pún tos*). It would thus *not* be a prosodically weak word (not a clitic) and therefore is best treated as an affix (thus a new verbal inflection, for subject, in the language, though with two and only two predicates).

[16]A level of *phonological phrase*, however, is a different matter; the nasal-induced voicing and regressive assimilation seen in *am bo* would reflect a phrase-level ('post-lexical') set of processes. That they duplicate in some way the word-internal morphophonemics with the addition of (weak-pronouns-as) inflectional affixes is a consequence of the analysis argued for here, but since the word-internal and the phrasal phenomena are not point for point identical (recall **a bo*), no analysis can collapse the two environments.

[17]The underlying stem in 'interesting' is arguably *enⁱjaférond-*, given genitive singular *enⁱjaférond-os* (with the restricted but not unparalleled ending *-os*), and the neuter nominative plural form *enⁱjaférond-a*. In *betón*, we are dealing with an indeclinable loanword (from French *béton*), so that the *-n* simply as a part of the lexical stem.

[18]See Joseph 1990 for further arguments that *ⁱen* in Greek is affixal.

[19]For instance, the potential location of *pauses* says little, since pauses (or really the Greek equivalent of pausing, the filler sound [e] or the protraction of a vowel) can occur within traditionally defined grammatical words, e.g. *enⁱiaaa¶féronda* 'interesting things/NTR.PL'. Moreover, a prosodic definition of *minimal word* yields an 'almost' argument for some types of words, but close is not good enough: statistically, by far, most nouns, verbs, and adjectives contain at least two syllables, but there is a non-negligible number of monosyllabic forms, rendering this 'test' unreliable. These include nouns, e.g. *jós* 'son/NOM', *jó* 'son/ACC' (and even more if loan words are taken into account, e.g. *jót* 'yacht', *gél* 'sex appeal', etc.; adjectives, e.g. *blé* 'blue', *móv* 'mauve', etc.; and verbs, e.g. imperatives such as *ⁱés* 'see', *pés* 'say', *bés* 'enter', etc., all of which can occur by themselves as one-word utterances, imperfectives with surface diphthongal nuclei, e.g.

[páw] 'I-go', [páj] '(s)he goes', [kléj] '(s)he cries' (though these are almost certainly disyllabic underlyingly, and possibly so in careful speech), and perfectives such as *pó* 'I-say', *ðí* '(s)he sees', etc., which, while not able to occur by themselves as one-word utterances, and so always co-occur with some other element (e.g. *ópote ðí* 'whenever he-sees'), nonetheless occur with forms that are clearly separate words (e.g. *ópote* 'whenever').

[20]This is the rationale given, for instance, in Joseph & Philippaki-Warburton 1987.

[21]See Joseph 2000c for discussion of relevant dialectal facts concerning the status of 'word'. Not only are the accent addition facts quite different in some regional dialects, but so are the accent placement facts; Crimean Greek, for instance, allows words with the lone accent five syllables from the end, as in *timázanandini* 'they were preparing' (Standard Greek *etimázondan*); see Delopoulos 1977 and Newton 1972 for examples.

[22]See, for instance, Joseph (1988, 1994, To appear) and Nevis & Joseph 1993 for arguments for the various pronominal elements as affixes, Joseph 1990 regarding the indicative negator, and Joseph 2000b, 2001 regarding the future marker. Additional evidence beyond these considerations, as well as arguments concerning many of the other elements as well are to be discussed in Joseph (Forthcoming).

[23]This is essentially the view taken by Zwicky 1994, a position with which I agree wholeheartedly. It is perhaps significant to note here that, as ubiiquitous as 'clitic-like' elements seem to be (so that some linguists see them everywhere!), there are languages that do not have any such elements; Dixon (This volume) argues that Jarawara is just such a language, with no grammatical elements that might be called 'clitics'.

[24] See Hock 1976 for a discussion of cases where formulations of sound changes in terms of word boundaries are actually better analyzed as based on syllable structure or utterance-finality. Posner (1996: 290) states the conditions for *e*-prosthesis in Romance languages to have been based on word-boundaries (#sC- —> #esC-) when in fact, as recognized by Lausberg (1956ff.), the original basis for this development was syllable-shape in connected speech (i.e., "Satzphonetik" or

sentence-sandhi), as seen in the standard Italian facts that Posner herself notes, namely that "prosthesis is limited to postconsonantal contexts" (e.g. *la scuola* 'the school' vs. *in iscuola* 'in school').