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The Semantics of the Native Greek Verb Suffixes

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The Semantics of the Native Greek Verb Suffixes*

Chariton Charitonidis (Cologne)

Abstract

The aim of this paper is to give the semantic profile of the Greek verb-deriving suffixes *-ízo), -én(o), -év(o), -ón(o), -(i)áz(o),* and *-ín(o)*, with a special account of the ending *-áo/-ó.* The patterns presented are the result of an empirical analysis of data extracted from extended interviews conducted with 28 native Greek speakers in Athens, Greece in February 2009. In the first interview task the test persons were asked to force(=create) verbs by using the suffixes *-ízo, -évo, -óno, -(i)ázo,* and *-íno* and a variety of bases which conformed to the ontological distinctions made in Lieber (2004). In the second task the test persons were asked to evaluate three groups of forced verbs with a noun, an adjective, and an adverb, respectively, by using one (best/highly acceptable verb) to six (worst/unacceptable verb) points. In the third task nineteen established verb pairs with different suffixes and the ending *-áo/-ó* were presented. The test persons were asked to report whether there was some difference between them and what exactly this difference was. The differences reported were transformed into 16 alternations. In the fourth task 21 established verbs with different suffixes were presented. The test persons were asked to give the "opposite" or "near opposite" expression for each verb. The rationale behind this task was to arrive at the meaning of the suffixes through the semantics of the opposites. In the analysis Rochelle's Lieber's (2004) theoretical framework is used. The results of the analysis suggest (i) a sign-based treatment of affixes, (ii) a vertical preference structure in the semantic structure of the head suffixes which takes into account the semantic make-up of the bases, and (iii) the integration of socio-expressive meaning into verb structures.

Introduction

In the generative linguistic tradition there is a special treatment of possible words and/or neologisms. On the one hand, possible words are usually based on the (co-) researchers' linguistic intuition (see Aronoff 1976, Giannakidou & Merchant 1999, Alexiadou 2009, etc.). On the other hand, neologisms are usually extracted from corpora or dictionary databases which conform to conventions about the accessing of past forms of print media etc. (see, for example, Plag's 1998, 1999 account on 20th century neologisms found in Oxford English Dictionary and Lieber's 2010 account on recent neologisms found in the Corpus of

* The present paper contains pp. 1–7, 10–26, 27–35, and 42–47 from the monograph *Making Verbs Happen: Interviews on Greek Verb Endings* (Charitonidis 2011). I would like to thank Ulrich Lüders from Lincom Europa for giving his permission to reproduce these pages.

Contemporary American English). In this study, I opt for another path of research. First, I examine judgements about verb derivatives that do not exist and are not intuitively possible/correct but whose existence can nonetheless be *forced* (=*creations;* see sections 2.1 and 2.2).[1] Secondly, I examine language judgements about the meaning of lexicographically existing verb derivatives (see sections 2.3 and 2.4). After the analysis, I bring together the meaning of the forced verbs with the meaning of existing verbs and see if the results from the two lines of research point to the same patterns.

The focus of this study is the Greek derivatives/creations in *-íz(o), -én(o), -év(o), -ón(o), -(i)áz(o),* and *-ín(o)*,[2] with special focus on the ending *-áo/-ó.* The data used in the analysis come from 28 extended interviews in four parts conducted in Athens, Greece in February 2009.[3] Each interview part was conceived as a question/task and had a small introductory text.[4] The test persons (henceforth TPs) were mostly humanities students in the age from 18-25 years.[5] In the analysis, I used Lieber's (2004, 2007) morphological system. The main issues which will be addressed in this study are:

- The semantic profile of the suffixes *-ízo, -éno, -évo, -óno, -(i)ázo,* and *-íno* and the real status of the ending *-áo/-ó* in relation to past accounts.
- The selection preferences of the suffixes as regards the ontological and lexical category of the derivation base, i.e. the interaction patterns between suffixes and bases.
- The definition of verb alternations according to informants' intuitions and judgements on pairs with rival suffixes.
- Which denotational and socio-expressive features interfere with Lieber's (2004, 2007) structures and the implications which result from these interferences.

The present paper is a shortened version of Charitonidis (2011), which is a pilot study within the scope of the project "The Integration of Socio-expressive Meaning into Verb Structures" conducted at the University of Cologne, Germany. This project aims at the formulation of a semantic theory of verb derivation which refers to (i) a denotational tier based on Lieber's (2004, 2007) model and (b) a socio-expressive tier which is mainly developed out of the analysis of creations.

1 Morphological description. Theoretical framework. Interview design.

1.1 Morphological description of the material used for testing

There are unfortunately only a few semantic studies on verb suffixation in Modern Greek (MG; see the comprehensive reference list in Efthymiou 2009). In relation to the verb derivatives in *-ízo, -ázo, -évo, -éno,* and *-óno,* Joseph & Philippaki (1987: 219) state that "to a certain extent… these suffixes are merely formal devices of signaling verbal categorial status,

rather than carrying any semantic content in themselves". This view cannot be accepted today, especially since the works of Charitonidis (2005 and his subsequent papers) and Efthymiou (2009).

By exclusively examining *-ízo* verb derivatives, Charitonidis (2005) presents verb derivation as the clustering of base contents (his "semantic/situational fields") inside alternation classes. He shows that specific semantic patterns are regularly connected to specific alternation classes while yielding a core semantic profile for the derivatives. Efthymiou (2009) extracts meaning cores for the MG verb-forming suffixes *-ízo, -(i)ázo, -óno, -évo* and *-éno.*[6] She uses labels such as SIMILATIVE ('act or be like BASE NOUN'), INSTRUMENTAL ('use BASE NOUN'), PERFORMATIVE ('do/write/say/perform BASE NOUN'), ORNATIVE ('add/provide with/apply/cover with BASE NOUN'), etc.[7] to describe their meaning. In the following, I give a brief morphological description of the material I used for testing. Except for the suffix *-íno* and the ending *-áo*/*-ó* I largely follow Efthymiou's (2009) description.

The suffix *-ízo* attaches to Ns, As, Vs, and ADVs. Phonologically, *-ízo* attaches primarily to consonant-final base stems. The most productive patterns are the SIMILATIVE, INSTRUMENTAL, PERFORMATIVE and RESULTATIVE patterns. The very productive SIMILATIVE class contains many neologisms which refer to someone having a certain attitude/displaying a certain behaviour or being similar to another entity. It is the only suffix that attaches to onomatopoetic words, but contrary to Efthymiou's assumptions, it is not the only suffix that forms verbs with the meaning 'act like': cf. the *-(i)ázo* derivatives *arkudhiázo (<arkúdha), lesviázo (<lesvía), neázo (<néos)*, and *xeloniázo (<xelóna)*, meaning 'act like a bear/lesbian/young person/turtle, respectively.[8]

The suffix *-(i)ázo* combines with adjectival and nominal bases. *-ázo* and *-iázo* have the same origin, but in standard MG *-iázo* is preferred, and nowadays it seems to be developing its own semantics. As Efthymiou (2009) reports, "the relationship of *-ázo* to *-iázo* and *-ízo* has been traditionally regarded as unclear". According to Ralli (2005: 147 f.147) in the *-iázo* form, -i- is the product of the reanalysis of the root of the neuter forms as a part of the derivational suffix, cf. *teri-ázo* > *ter-iázo* 'fit', 'match' (*téri* 'match', 'mate'), etc.[9]

The number of transparent *-ázo* forms is very small (cf. section 2.1.1.1). *-ázo* appears with feminine nominal bases in *-í* or in *-a* (stressed on the penultimate syllable) and with adjectival bases in *-os* stressed on the antepenultimate syllable. Overall, *-ázo/-iázo* attaches primarily to consonant-final base stems. Particularly, *-(i)ázo* attaches primarily to nominal feminine bases in *-a* or neutral bases in *á*+C+*i* (stressed on the penultimate syllable), e.g. *komatiázo* 'break/tear into pieces' (*komáti* 'piece'), to feminine nouns in *-iá* and *-í,* e.g. *angaliázo* 'to embrace' (*angaliá* 'arms'), to bases in *-io(s),* e.g. *dhiplasiázo* 'to double' (*dhiplásios* 'double'), and to imparisyllabic masculine nouns, e.g. *papudhiázo* 'become like an old person' (*papús* 'grandfather', 'old person'). The most robust semantic pattern of *-(i)ázo* derivatives is INCHOATIVE ('be provided with – usually unwanted endogenous – x'). *-(i)ázo,*

when pronounced [jázo] or [çázo], but not in the form *-ázo,* usually attaches to [–learned] bases denoting something negative and derives verbs characterized as [–learned].

The suffix *-óno* has a preference for attaching to nouns, but it can also be attached to adjectives. Phonologically, *-óno* attaches to both consonant-final and vowel-final base stems. The ORNATIVE pattern seems to be the most robust pattern for *-óno* derivatives.

The suffix *-évo* usually combines with nominal [+animate] [+masculine] bases, as well as with adjectival bases. A considerable number of *-évo* verbs are intransitive verbs formed on nominal bases. Phonologically, *-évo* attaches to consonant-final base stems: the only vowel allowed to appear before *-évo* is /i/ (*aghriévo* 'make/become fierce'). The SIMILATIVE 'carry out the official activities of x'[10] and the INCHOATIVE patterns seem to be the more robust patterns for *-évo* derivatives. *-évo* is the only suffix among the native verbal suffixes that attaches to nouns denoting a profession or an office.[11]

The suffix *-éno* mostly combines with disyllabic adjectival bases in *-ós* or *-ís*, and expresses a CAUSATIVE or INCHOATIVE meaning: *ghlikéno* 'sweeten' (*ghlikós* 'sweet'), *vathéno* 'deepen' (*vathís* 'deep'), etc., but also combines with some nouns, expressing an ORNATIVE meaning: *ripéno* 'pollute' (*rípos* 'dirt', 'pollution'), *lipéno* 'lubricate, fertilize' (*lípos* 'fat', 'oil'). According to Efthymiou (2009), the suffix *-éno* is no longer productive in present day Greek.[12]

The suffix *-íno*[13] mainly combines with adjectives[14] to yield RESULTATIVE verbs. Its productivity is limited. In addition to the old formations having a base in *-ís,* cf. *amvlíno* 'blunt, dull' (*amvlís* 'blunt', 'dull'), *varíno* 'weigh on sth./so.' (*varis* 'heavy') etc., some new formations have bases in *-os,* cf. *apalíno* 'soften' (*apalós* 'soft'), *efkolíno* 'facilitate' (*éfkolos* 'easy'), etc. Some of the *-íno* verbs have colloquial parallel forms in *-éno,* which are additionally INCHOATIVE: cf. *paxéno* (*paxís* 'fat'), which means 'make sth./so. fat' (RESULTATIVE) or 'become fat' (INCHOATIVE), as opposed to the exclusively RESULTATIVE *paxíno*. Table 1 summarizes Efthymiou's analysis.

Table 1: The semantics of the native Greek verb suffixes according to Efthymiou (2009)

	-ízo	*-(i)ázo*	*-óno*	*-évo*	*-éno*
RESULTATIVE	✓	✓	✓	✓	✓
INCHOATIVE	✓	✓	✓	✓	✓
ORNATIVE	✓	✓	✓	✓	✓
LOCATIVE	✓	✓	✓	✓	
PERFORMATIVE	✓	✓		✓	
SIMILATIVE	✓	✓		✓	
INSTRUMENTAL	✓	✓	✓	✓	

As Efthymiou (2009) notes, the meanings of *-óno* and *-éno* are more restricted than the meanings of *-ízo, -(i)ázo,* and **-***évo,* and all suffixes seem to share a common causative/resultative meaning (see Table 1). Accordingly, she proposes the semantic structure CAUSE [x BE y LOC z] for all verb-forming processes in MG.[15]

Ralli (2005: 131ff) states that the verbs in *-áo/-o* are assigned to the inflectional paradigm *2a* of the Greek verb which is characterized by the systematic allomorphy of the stem X(a) ~ X(vowel), e.g. *aghap(á)-o ~ aghapí-so,* where X(a)=*aghap(á)-* and X(vowel)=*aghapí-*. In other words, the alternation of *-áo/-ó* is not regarded as a case of variation of the same inflectional suffix, but as an allomorphic variation of the stem (see also Ralli 2009). As two anonymous referees note, *-áo* is characteristic of Southern – mainly Peloponnesian – Dialects. In certain Northern Greek Dialects, only the *-ó* variant exists (see also Melissaropoulou 2010). This dialectal conflict is obviously mirrored in the centrally located capital Athens since Athenian residents have origins in both the north and the south of Greece.

Iordanidou (2003: 371) similarly rejects allomorphic variation of the same suffix, and states that the appearance of the X*a* base points to the convergence of the tonal form of the respective verbs to the tonal form of the first conjugation, cf. *líno* 'tie'.[16] After conducting some experiments with older primary school children in Patras and Athens, the same author implies that the alternation *-áo/-ó* is a predictable choice of a speaker of Greek only in relation with the style of speech (in my view an expressive factor). She states that "in texts with a strong oral character there is almost no presence of *-ó* forms". In addition, the preference for the *-áo* forms in oral speech occurs independently of social class (see Iordanidou 1993: 380; see also Iordanidou forthcoming). Vis-à-vis the appearance of the *-áo* and *-ó* forms in the same speaker, she concludes that "it is not possible to isolate elements in the language environment which definitely interfere" (Iordanidou: 1993: 380). In sum, past accounts on the endings *-áo* and *-ó* largely ignore the lexical factors which condition their presence.[17]

1.2.1 Theoretical framework

In the following analysis, I use Lieber's (2004, 2007) morphological system as a kind of semantic filter in order to isolate meaning components which interfere with her structures. A concomitant goal in this undertaking is to promote the selectional properties of affixes as the main determinants of derivation. To this effect I agree with Melissaropoulou and Ralli (2010) who regard suffixes as heads of derivational structures because they transmit their features to the derived items (about the process of "feature percolation" see Melissaropoulou and Ralli 2010: 348-350).

The great advantage of Lieber's (ibid) model is the efficient handling of transpositional effects between a derivative and its base on a semantic basis. Affixes are regarded as linguistic signs equivalent to the bases onto which they attach (the sign-based hypothesis). They operate on bases, while producing a derivative which is allocated to the same set of featural combinations as the bases themselves. According to Lieber (2004: 9-10) there is a fundamental distinction in the lexical semantic representations of lexical items: the Semantic/Grammatical Skeleton (*skeleton,* for short) and the Semantic/Pragmatic Body (*body,* for short). The skeleton seeks to isolate "all and only those aspects of meaning which have

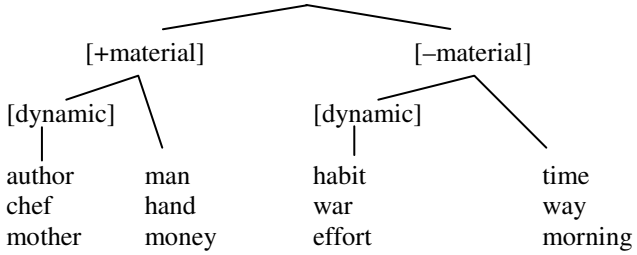
consequences for the syntax", while the body is "encyclopedic, holistic, nondecompositional, not composed of primitives, and perhaps only partially formalizable". In the following, I give a comprehensive illustration of Lieber's (2004, 2007) morphological system.

1.2.1.1 Skeleton

Lieber (2004) defines two conceptual categories (major ontological classes) for the skeletons: SUBSTANCES/THINGS/ESSENCES and SITUATIONS. These categories are used as mnemonic labels for different combinations of semantic features, and not as primitives. The very essence of her system is formed by the features [material] and [dynamic]. These features can be positive or negative, whereas in the case of nominal forms, the feature [dynamic] may be totally absent (see (1) below).[18]

As regards the decomposition of the major lexical categories by means of features, Lieber assumes that nouns have at least the feature [material] in their skeleton, verbs and adjectives have the feature [dynamic] without the feature [material], verbs may be [+dynamic], i.e. EVENTS, or [–dynamic], i.e. STATES. Adjectives bear the feature [–dynamic], i.e. they are STATES. In Lieber (2007) the features [+scalar] and [–scalar] for adjectives are introduced, cf. the adjectives *wide* and *pregnant,* respectively.
The system of SUBSTANCES/THINGS/ESSENCES is found in (1).

(1) [Lieber 2004: 27]



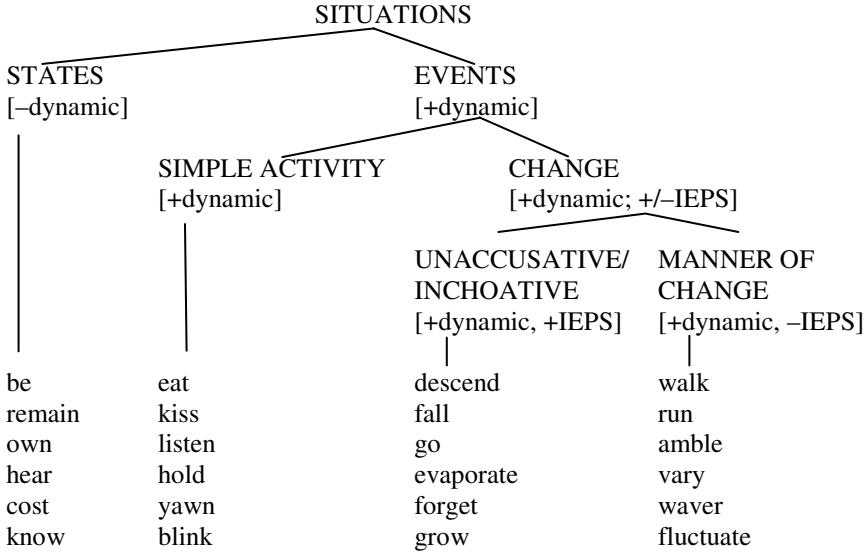
The semantic features presented so far are used as functions which take arguments. Lexical items will always have at least one argument – in the case of nouns at least one argument called "R"-argument – but they may also have more than more argument, see (2) below.

(2) *leg* [+material ([ ], [ ])] (e.g. *the leg of the table*) [Lieber 2004: 25]
fond [–dynamic ([ ], [ ])] (e.g. *fond of pickles*)
kiss [+dynamic ([ ], [ ])] (e.g. *kiss frogs*)

Another important feature is [IEPS] (Inferable Eventual Position or State) used for verbal SITUATIONS. Its addition signals the addition of a sequence of PLACES or STATES. In particular, [+IEPS] signals the existence of a directed PATH, cf. the UNACCUSATIVE verb *fall* and the INCHOATIVE verb *grow,* and [–IEPS] signals the existence of a random PATH,

cf. the verbs *walk* and *vary*. If [IEPS] is absent, the notion of PATH is irrelevant, cf. the verb *hold*. The final system of SITUATIONS is found in (3).

(3) [Lieber 2004: 30]



Causative verbs consist of two subevents: an ACTIVITY (*x* does something to *y*) and a RESULT (such that *x* causes *y* to become/go to *z*). In (4) the semantic skeleton for the causative verb *grow* is given.

(4) *grow* (causative) [Lieber 2004: 33]
[+dynamic ([$_i$], [$_j$])]; [+dynamic ([$_i$], [+dynamic, +IEPS ([$_j$], [$_{Path}$])])]

1.2.1.2 Body

As already mentioned at the beginning of section 1.2.1, body is encyclopaedic, holistic, nondecompositional, and not composed of primitives. It refers to perceptual and cultural knowledge while including many of the aspects of meaning that Pustejovsky encodes in his Qualia Structure, i.e. information concerning material composition, part structure, orientation, shape, colour, dimensionality, origin, purpose, function, etc. (Lieber 2004: 10; see Pustejovsky 1995: 85-6 for a short description of Qualia Structure). I would like to cite an example presented in Lieber (2004: 51-52) which shows what body looks like and how it co-operates with skeleton. The skeleton and body of the copulative compound *clergyman-poet* is given in (5).

(5) [Lieber 2004: 51]

skeleton	[+material, dynamic ([$_i$])]	[+material, dynamic ([$_i$])]	
	clergyman	*poet*	
body	<natural>	<natural>	
	<human>	<human>	
	<male>	<writes poetry>	
	<cleric>		

As can be seen, the skeletons of the nouns *clergyman* and *poet* are directly pulled together for the identification of a single referent because they are identical. The bodies of the same nouns have the identical major attributes <natural> and <human> which also allow for the identification of a single referent. The minor attributes <male>, <writes poetry>, and <cleric> are not identical, but they cannot impede the referential identification.[19]

To conclude, the combinatorial properties of the skeleton features are for the most part traceable. Bodily attributes do not constitute a restricted class, and their combinations cannot be sufficiently explained.

1.3 The design of the interviews

The interviews concentrated on predictions and evaluations as regards *lexical* knowledge. This means that no context was given together with the tested material. The informants were able to both hear and read the questions (see Appendix A). Their answers were written down on paper by the investigator. Since bases and endings were also given in written form, the informants did not confuse them with phonologically similar items.

The two of the four tasks referred to "forced" or "created" verbs (see sections 2.1 and 2.2). This mainly means that these verbs were unattested and not unequivocally understandable. Their bases are very old but for decades no derivatives have been formed, cf. for example the creation !*miterízo*[20] 'behave like a mother' for the base *mitéra* 'mother'. This happens because of several, sometimes interrelated, reasons: (i) they are blocked by the existence of other lexemes with the same or similar meaning (Aronoff 1976, van Marle 1985, Rainer 1988), (ii) they have not yet entered a syntactico-semantic paradigm (see Charitonidis 2005), (iii) they are cognitively marginal/improper (cf. Onysko and Michel 2010), (iv) they are formed from categories such as verbs for which no derivation in MG is attested (cf. section 2.1), (v) they are blocked by phonological restrictions on the output (see Plag 1999, 2003), etc. Nonetheless, there were no systematic phonological considerations in the choice of bases and verbs used in the interviews, because there are no systematic accounts on both the metrical form and the phonological boundaries of the morphological units involved in Greek verb derivation.

The heterogeneity of these *output* factors mentioned above does not impair the comparability of the results at the level of *input* features. In the present study suffixes are considered as lexical heads which keep their semantic composition independent of the structure they appear in (the sign-based hypothesis; see section 3). What is relevant in this study are the effects of combination of the linguistic signs, i.e. of bases and of suffixes, under the condition of forcing. The comparison of the operations in created verbs with the operations in existing/established verbs validates the former. [21]

2 The interviews

2.1 Creation of derivatives

The TPs were asked to build "possible" verbs[22] with the suffixes *-ízo, -évo, -óno, -(i)ázo,* and *-íno* using a variety of bases according to the ontological distinctions made by Lieber (2004: 26-30). The first four bases strictly conform to Lieber's featural decomposition of the noun category (SUBSTANCES/THINGS/ESSENCES) into [+material, dynamic] (*mitéra* 'mother'), [+material] (*leftá* 'money'), [–material, dynamic] (*adhikía* 'injustice'), and [–material] (*proinó* 'morning').[23] The last two bases conform to Lieber's featural distinction of verbal SITUATIONS while being [+dynamic] (*trógho* 'eat') and [–dynamic] (*éxo* 'have')[24]. Adjectives were not examined, because these would extend the interview time considerably. The interviewed persons were permitted to use more than one verb suffix for each base word (see section 2.1.1). Additionally, they were asked to give a possible meaning for the created verb(s) (see section 2.1.2).[25] Let us see first some statistical patterns for the created verbs.

2.1.1.1 Results regarding the view of the suffixes

Table 2 gives the general patterns related to the task of creation. The values stand for the number of created derivatives. *-ázo* and *-iázo* are treated as different suffixes[26] and the ambiguity of the base *proinó* ('breakfast'/'morning') is not taken into account.

Table 2: The use of suffixes in the task of creation

	-ízo	**-évo**	**-iázo**	**-óno**	**-éno**	**-ázo**	**-íno**	**Total**
Creations	48	45	24	24	14	3	3	**161**
	29.81%	27.95%	14.91%	14.91%	8.70%	1.86%	1.86%	

Table 2 makes clear that *-ízo* (29.81%) and *-évo* (27.95%) are the most productive suffixes (if I may use the term 'productive' for creations) followed by *-iázo* (14.91%), *-óno* (14.91%), and *-éno* (8.70%), whereas the last positions are occupied by *-ázo* (1.86%) and *-íno* (1.86%).
These results are very likely to mirror contemporary productive trends of the Greek verb suffixes. My own research (Charitonidis 2005) has already pointed out the high productivity of *-ízo.* The fact that *-ízo, -iázo,* and *-óno* are among the best candidates is in accordance with my own intuition as a native speaker of standard (i.e. Athenian) MG. *-évo* shows a very good score, against my own intuition, but as an anonymous referee noted, this is normal: in Athens there are many dialectal speakers for which *-évo* is more productively attached to bases than *-ízo,* e.g. speakers of Pontic (see also Melissaropoulou 2010).

Most importantly, the percentages in Table 2 correspond to the number of existing forms we find with these suffixes. Efthymiou (2009) extracted derivatives with the different suffixes from The Reverse Index of Modern Greek (RIMG, for short) and scrutinized them.[27]

Her results are given in Table 3. I give the percentages in relation to the total of the derivatives in parentheses. In the rightmost row I cite my percentages from Table 2.[28]

Table 3: Efthymiou's (2009) quantitative data and my percentages

Verbs in	**Raw data (Total: 9767)**	**Scrutinized data (Total: 2040)**	**My percentages**
-ízo	3507 (35.91%)	approx. 650 (31.86%)	29.81%
-ázo/-iázo	2260 (23.14%)	approx. 470 (23.04%)	16.77%
-óno	2106 (21.56%)	approx. 500 (24.51%)	14.91%
-évo	1207 (12.36%)	approx. 320 (15.69%)	27.95%
-éno	687 (7.03%)	approx. 100 (4.9%)	8.70%

As can be seen, Efthymiou's results have striking similarities with my own. The only strongly aberrant pattern is the high percentage of *-évo* verbs in my results, which is explained above. Efthymiou (2009) states that "the suffix *-éno* is no longer productive in present day Greek". However, the TP responses in this section point to an existing but limited productivity of this suffix (8.70%; see Table 2). In addition, I have extracted many new verbs ('Main verbs')[29] from RIMG which attest the productivity of this suffix, e.g. *akrivéno* 'go up' (*akrivós* 'expensive'), *axamnéno* 'become fleshless/scraggy' (*axamnós* 'fleshless', 'scraggy'), *vuvéno* 'shut up', 'dumb' (*vuvós* 'dumb'), *zurléno* 'make so. barmy' (*zurlós* 'barmy'), etc. To conclude, *-éno* is still productive in present day Greek.

These strong similarities suggest not only that my method is on the right track but, most importantly, that in the domain of verb derivation creativity, and perhaps also productivity, is not developed out of thin air, but strongly conforms to existing morphosemantic knowledge, i.e. relies on the repository of morphologically indexed forms.[30] Therefore, it seems that in forcing tasks native speakers access a hierarchical suffix structure in which some suffixes have a stronger *index of usage* than others. As will become clear in the following sections, the creativity tests also address the ontological status of the bases. It seems, however, that base ontology does not have the same power as this index of usage.

In this context a major issue remains to be addressed: can the results from creativity tasks be equated with or transferred to empirically measured morphological productivity? Since it is not yet possible to use computer-based methods for the assessment of productivity on MG verbs, this question cannot yet be answered (see Plag 1999: 22-35 for some methods related to neologisms or hapax legomena).[31]

In sum, my results in this section strongly suggest that the creation of new verbs by means of suffixes, in this case the forcing of suffixed verbs, heavily relies on the stock of existing suffixed verbs and a stored index of usage[32] for each of the suffixes.

2.1.1.2 The results in the view of the bases

Let us see the totals hierarchy for the created verbs together with the ontological status of their bases (see Table 4).

Table 4: The use of the bases in the task of creation

Bases	**Ontological status of the bases (Lieber 2004)**	**Creations**	
mitéra 'mother'	[+material, dynamic] SUBSTANCE/THING/ESSENCE	36	22.36%
adhikía 'injustice'	[–material, dynamic] SUBSTANCE/THING/ESSENCE	34	21.12%
leftá 'money'	[+material] SUBSTANCE/THING/ESSENCE	28	17.39%
proinó 'morning'/ 'breakfast'	[–material] SUBSTANCE/THING/ESSENCE [+material] SUBSTANCE/THING/ESSENCE	28	17.39%
trógho 'eat'	[+dynamic] SITUATION	22	13.66%
éxo 'have'	[–dynamic] SITUATION	13	8.07%
	Total	**161**	

As can be seen in Table 4, the percentages over the totals of creations are: *mitéra* (22.36%),[33] *adhikía* (21.12%), *leftá* (17.39%), *proinó* (17.39%), *trógho* (13.66%), and *éxo* (8.07%). According to Lieber's (2004: 22-29) ontology, the results in Table 4 may suggest that a [+material, dynamic] SUBSTANCE/THING/ESSENCE (see *mitéra*) is more susceptible to derivation in MG than any other kind of bases. In general, [dynamic] SUBSTANCES/THINGS/ESSENCES appear to be more susceptible to derivation (see *mitéra, adhikía*) followed by [+material] or [–material] entities in which the feature [dynamic] is absent/irrelevant (see *leftá, proinó*). Unfortunately, these assumptions contradict the results from the analysis of *-ono* and *-(i)ázo* verbs found in RIMG (see section 2.1.1.3), in which [+material] bases show up most often and [+material, dynamic] bases are very rare. This is because the results of this section have strong interference from the test design. The TPs were instructed to *force* verbs. Accordingly, they used a base even in the event that this base was not natural/possible. For all that, the percentages in Table 4 may suggest a higher compatibility of deriving suffixes with bases which are stressed on the penultimate syllable (cf. *mitéra* and *adhikía*).[34]

Most trivially, SITUATIONS – in this case verbs – resist derivation (cf. *trógho* and *éxo*). This is suggested by the fact that 8 out of 28 TPs could not give any derivatives for *trógho* and 16 out of 28 TPs could not give any derivatives for *éxo* (see row 'No V' in Table 5 below). But if there is no deverbal derivation in MG, how can we explain the creations given? The answer is that the meaning predictions of the the TPs often refer to a socio-expressive level of meaning, cf. the features [+force] for !*troghízo* or {–evaluation} for !*troghízo,* !*troghiázo,* !*troghóno* and !*exiázo*. In other cases, there was no change of meaning, cf. !*troghévo,* !*troghóno,* etc. In several cases, the creations with the base verb *éxo* imposed a volitional [+dynamic] reading which was not present in the [–dynamic] verb. It is therefore evident that the suffixes do impose functions on verbs; they are active as signs both denotationally and socio-expressively, even in cases in which grammar is ignored (see Appendix B for the interpretations of all deverbal creations).

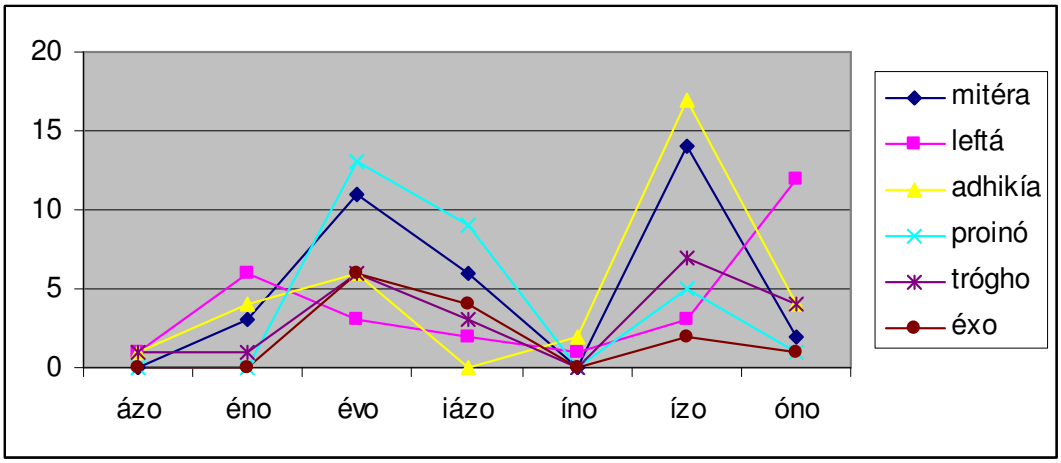
2.1.1.3 The interaction between suffixes and bases

Table 5 helps us to identify the interaction patterns between suffixes and bases, and Figure 1 displays these interactions. In the last row of Table 5 ('No V'), the number of the TPs who did not give any derivatives is given.

Table 5: Verb bases and verb suffixes in interaction

	-ázo	**-éno**	**-évo**	**-iázo**	**-íno**	**-ízo**	**-óno**	**Total**	**No V**
mitéra 'mother'	0	3	11	6	0	14	2	**36**	0
leftá 'money'	1	6	3	2	1	3	12	**28**	3
adhikía 'injustice'	1	4	6	0	2	17	4	**34**	0
proinó 'breakfast'/ 'morning'	0	0	13	9	0	5	1	**28**	4
trógho 'eat'	1	1	6	3	0	7	4	**22**	8
éxo 'have'	0	0	6	4	0	2	1	**13**	16
Total	**3**	**14**	**45**	**24**	**3**	**48**	**24**	**161**	

Fig. 1 Verb bases and verb suffixes in interaction



Created using Microsoft Excel 2003

Figure 1 helps us to detect some exceptional interaction patterns. We see that the [–material, dynamic] SUBSTANCE/THING/ESSENCE *adhikía* does not combine with the suffix *-iázo* at all, whereas the same base shows the highest combinability with the suffix *-ízo* (17 creations). The contour for the [+material] SUBSTANCE/THING/ESSENCE *leftá* shows a high combinability with the suffix *-óno* (12 creations).

I tried to validate the percentages for *-óno* and *-(i)ázo* by using the online version of RIMG at http://www.komvos.edu.gr/dictionaries/dictOnLine/DictOnLineRev.htm. I scrutinized the *-óno* and *-iázo* verbs by applying two criteria: the first criterion was an apparent distinctive base in the derivatives. The second criterion which was subsequently applied was the origin of these verbs in the last two centuries.[35] Accordingly, for the first verb class the following came into consideration: (a) *neologisms*, esp. those which scholars have introduced in the past 150 years or a little earlier,[36] e.g. *torpilízo* 'torpedo' (*torpíli* 'torpedo'), (b) *loan translations,* e.g. *magnitízo* 'magnetize' (*maghnítis* 'magnet'), and (c) verbs from the *modern vernacular*

language, e.g. *fevghatízo* 'help so. to escape/to get away' (*fevghátos* 'gone', 'fled'). The verbs in (a)-(c) are described from now on as 'Main verbs' ('M verbs').[37] Correspondingly, two further categories of verbs were resulted, i.e. non-M verbs, i.e. verbs from the ancient, Hellenistic, and medieval times, till approx. 1850 AD, and the General (G) category with all M and non-M verbs. The results of the ontological analysis are given in Table 6.

Table 6: Base ontology of *-óno* and *-(i)ázo* verbs

-óno				***-(i)ázo***		
Main: 200 verbs				**Main: 244 verbs**		
[+material, dynamic]	1	0.50%		[+material, dynamic]	9	3.69%
[–material, dynamic]	19	9.50%		[–material, dynamic]	16	6.56%
[+material]	152	76%		[+material]	167	68.44%
[–material]	7	3.50%		[–material]	24	9.84%
[+dynamic]	0	0.00%		[+dynamic]	0	0.00%
[–dynamic]	21	10.50%		[–dynamic]	27	11.06%
[+Loc]	0	0.00%		[+Loc]	1	0.41%
[–dynamic, +scalar]	6	3%		[–dynamic, +scalar]	2	0.82%
[–dynamic, –scalar]	15	7.50%		[–dynamic, –scalar]	25	10.24%
Non-Main: 203 verbs				**Non-Main: 148 verbs**		
[+material, dynamic]	0	0%		[+material, dynamic]	6	4.05%
[–material, dynamic]	12	5.91%		[–material, dynamic]	28	18.92%
[+material]	112	55.17%		[+material]	53	35.81%
[–material]	13	6.40%		[–material]	25	16.89%
[+dynamic]	0	0.00%		[+dynamic]	0	0.00%
[–dynamic]	65	32.02%		[–dynamic]	33	22.30%
[+Loc]	1	0.49%		[+Loc]	3	2.03%
[–dynamic, +scalar]	27	13.30%		[–dynamic, +scalar]	11	7.43%
[–dynamic, –scalar]	38	18.72%		[–dynamic, –scalar]	22	14.86%
General: 403 verbs				**General: 392 verbs**		
[+material, dynamic]	1	0.25%		[+material, dynamic]	15	3.83%
[–material, dynamic]	31	7.69%		[–material, dynamic]	44	11.22%
[+material]	264	65.51%		[+material]	220	56.12%
[–material]	20	4.96%		[–material]	49	12.5%
[+dynamic]	0	0.00%		[+dynamic]	0	0.00%
[–dynamic]	86	21.34%		[–dynamic]	60	15.31%
[+Loc]	1	0.25%		[+Loc]	4	1.02%
[–dynamic, +scalar]	33	8.19%		[–dynamic, +scalar]	13	3.32%
[–dynamic, –scalar]	53	13.15%		[–dynamic, –scalar]	47	11.99%

Let us now examine the relevant patterns in Table 6:

***-óno* verbs:** There is a very high percentage of [+material] bases in the M category (76%), and a high percentage of [+material] bases in the non-M category (55.17%). This is also reflected in the percentage of [+material] bases in the G category (65.51%). In other words, there is a clear preference of the suffix *-óno* for the selection of simple [+material] bases.[38] These results are in accordance with the results in this section (cf. Table 5 and Figure 1) but also with the results in section 2.2.1 where the [+material] entity *potíri* 'glass' showed up as the optimal candidate for *-óno* (see Table 9).

***-(i)ázo* verbs:** There is a high percentage of [+material] bases in the M category (68.44%) but a low one in the non-M category (35.81%). Accordingly, G category has a moderate percentage of [+material] bases (56.12%). This, again, validates the preference of *-óno* for [+material] bases in the creation task. However, despite the results in the creation task of this section, *-(i)ázo* is able to select [–material, dynamic] bases, though in a restricted way in the M category (M: 6.56%, non-M: 18.92%, G: 11.22%). In RIMG there are many base nouns in the non-M category which show the same semantic and phonological pattern as *adhikía* in the creation !*adhikiázo*, cf. *dhilía* 'cowardice', 'timidity' in *dhiliázo* 'show cowardice/timidity', *eksusía* 'authority', 'control' in *eksusiázo* 'control', 'rule', *thisía* 'sacrifice' in *thisiázo* 'sacrifice', etc. Nonetheless, there is no derivative with this pattern in the M category. In other words, in the creation task of this section *-iázo* strictly conforms to the patterns of the new derivation by being not combined with [–material, dynamic] bases. This is an indication for an independent and hence strong productivity pattern of this suffix.

In addition some comments on the ***-ízo*** patterns: in Charitonidis (2005) there is no noun in *-ía* in the M category which forms a derivative in *-ízo*. From the old derivation only *aksía* 'value', 'worth', *ikía* 'residence', *istoría* 'depiction', and *manía* 'mania', 'fury' could be phonologically related to the derivatives *aksízo* 'be worth', 'deserve', *ikízo* 'colonize', 'settle', *istorízo* 'depict an event by painting', and *manízo* 'get angry', respectively. Why this strange combination in the creation task as well? I think that the ultimate answer is the semantic composition of the base. First, as already mentioned above, the rival suffix *-iázo* does not currently prefer [–material, dynamic] bases, so it does not compete with *-ízo* for the selection of the [–material, dynamic] base *adhikía.*[39] Secondly, the [–learned] marking of the rival suffix *-iázo* (see section 1.1) would clash with the socio-expressively neutral content of *adhikía*. Thirdly, the {+intensive} feature which was detected for *-ízo* in section 2.3 may serve as a focus marker for an unjust act, addressed by the base *adhikía*. We see then that the creation !*adhikízo* is a product of an interplay of denotational and socio-expressive factors.[40] Adequate detection of this interplay was made possible by means of the presentation of both existing and created verbs to the informants.

As already pointed out at the beginning of section 2.1, *proinó* is a case of ambiguity. Table 7 shows the attested interaction patterns by means of the number of created verbs.

Table 7: The interaction patterns for the ambiguous base *proinó*

	-ázo	**-éno**	**-évo**	**-iázo**	**-íno**	**-ízo**	**-óno**	**Total**	
proinó [–material]	0	0	5	5	0	3	0	**13**	46.43%
proinó [+material]	0	0	8	4	0	2	1	**15**	53.57%
Total	**0**	**0**	**13**	**9**	**0**	**5**	**1**	**28**	

As can be seen, it is not possible to extract regularities in relation to ambiguity preferences. The totals for each sense are almost the same (see the last row of Table 7). Let us now examine the interpretations of the created verbs.

2.1.2 The meaning of the created verbs: extracting the features/functions

By analysing the paraphrases of the TPs for the created verbs I did not give a complete functional structure for each interpretation. I used Lieber's (2004, 2007) primitives as semantic units and tried to see whether additional meaning components emerge in the responses of the TPs. It should be noticed that the responses of the TPs were usually whole phrases or sentences with another verb, i.e. they referred to a dissociated syntax. Accordingly, the elaboration of functional structures co-indexed with the syntax would be an absurd procedure (see also section 3).

In the analysis I had to make the right abstractions from the responses I received. The appearance of the same features in the interpretation of different TPs and their confirmation in different parts of this study were the ultimate criteria for assuming and keeping such features. Table 8 contains all features used in this study for suffixes/endings. Features 1-4 directly correspond to Lieber's (2004, 2007) features and are adopted as such. Features 5-13 are mnemonic labels in the form of extra features for semantic components which have emerged from the analysis. Features 14-21, enclosed in curly brackets, are socio-expressive features introduced by the author. The feature [+phonological] is not included in the list since it makes reference to whole forms and is not purely semantic.[41] In the examples, creations are indicated with '!'.

Table 8: The set of features for the suffixes/endings examined

	Feature	Meaning	Example endings	Example verbs
1.	[+dynamic]	Event	*-ázo*	!*leftázo* 'make money' (*leftá* 'money')
2.	[–dynamic]	State	*-évo*	!*miterévo* 'be a mother' (*mitéra* 'mother')
3.	[+dynamic, +IEPS,[42] +Loc]	Unaccusative/inchoative	*-éno*	!*miteréno* 'become a mother' (*mitéra* 'mother')
4.	[–dynamic, +Loc]	Location or end of a change of state/end of a transfer	*-évo*	!*proinévo* 'be in the morning time' (*proinó* 'morning')
5.	[+accumulation]	Accumulation of some referent in the described event/state	*-iázo*	!*exiázo* 'be a materialist', 'want many things' (*éxo* 'have')
6.	[+direction]	A tendency in the activity denoted by the creation	*-ízo*	!*proinízo* 'like to refer to mornings' (*proinó* 'morning')
7.	[+force]	Forceful activity	*-ízo*	!*troghízo* 'feed so. by force' (*trógho* 'eat')
8.	[+habitual]	Habitual action (TP comment)	*-áo*	*serghianáo* 'take so./go for a walk' (*serghiáni* 'walk')
9.	[+M]	Metaphorical shift	*-ízo*	!*troghízo* 'fret' (*trógho* 'eat')
10.	[+register]	Interpretation with a register other than the standard one	*-évo*	!*troghévo* 'eat – in low/provincial register' (*trógho* 'eat')
11.	[+RS]	Shift of a referent in a situation	*-iázo*	!*miteriázo* 'be a mother's boy', 'complain' (*mitéra* 'mother')[a]

12.	[+similative]	Similarity of the behaviour of an individual to that of another individual (usually denoted by the base)	*-iázo*	!*miteriázo* 'behave annoyingly like a mother' (*mitéra* 'mother')
13.	[+specialized]	Specialization of an activity in a concrete situation without reference shift	*-éno*	!*mitréno* 'suckle a child' (*mitéra* 'mother')
14.	{+aesthetic/correct}	Aesthetic/correct form (TP comment)	*-ízo*	*kitrinízo* 'become yellow' (*kítrinos* 'yellow')
15.	{–aesthetic/correct}	Non-aesthetic/incorrect form (TP comment)	*-iázo*	*kitriniázo* 'become yellow' (*kítrinos* 'yellow')
16.	{+derisive}	Derisive use (TP comment)	*-iázo*	*kitriniázo* 'become yellow' (*kítrinos* 'yellow')
17.	{+diminutive}	Small referent	*-ízo*	!*troghízo* 'eat a small amount (*trógho* 'eat')
18.	{+evaluation}	Positive evaluation	*-évo*	*taksidhévo* 'journey', 'travel' (*taksídhi* "journey', 'travel')[b]
19.	{–evaluation}	Negative psychology, pejorative meanings, and negative ethical views	*-iázo*	!*miteriázo* 'behave annoyingly like a mother' (*mitéra* 'mother')
20.	{+intensive}	Intense activity (TP comment)	*-ízo*	*serghianízo* 'take so./go for a walk' (*serghiáni* 'walk')
21.	{+low class/provincial}	Low class/provincial form	*-áo*	*kutsuláo* 'throw droppings', 'dirty with droppings' (*kutsuliá* 'droppings')

[a] In this case the reference shifted from 'mother' to 'mother's boy'.
[b] The feature {+evaluation} for *-évo* is accessed through the antonymous TP response *méno stásimos* 'be fixed in one place', 'remain unimproved'.

2.1.3 Results

The features defined in section 2.1.2 combine to yield a semantic profile for each suffix. In Appendix B a complete list of the creations is given accompanied by the author's comments. Let us see what the main similarities and differences between the suffixes are. The percentages are always given for the total of verbs with the respective suffix.

Almost trivially, the vast majority of suffixes create **[+dynamic]** verbs.[43] Only ***-évo*** seems to have the potential to create **[–dynamic]** verbs (15.56%). The feature **[+IEPS]** is almost totally absent in the creations in ***-óno*** (only one verb with this feature was produced, see !*miteróno*). The feature cluster **[+dynamic, +similative]** appears most often in the ***-ízo*** creations (31.25%). The ending ***-iázo*** also has a strong preference for this pattern (25%). The feature **[+Loc]** appears most often in the creations in ***-óno*** (54.17%). The high percentage of **{–evaluation}** in ***-iázo*** is also a prominent pattern (20.83%).[44] **[+accumulation]** and **[+direction]** also often appear in the ***-iázo*** verb group (20.83% and 16.67%, respectively). ***-éno*** seems to be the most neutral suffix, its meaning varying between [+dynamic] and [+dynamic, +IEPS, +Loc] readings (42.86% and 35.71%, respectively).[45]

All results are comprehensively given in Table 9 below. Denotational features are enclosed in square brackets, and the lone socio-expressive feature in the rightmost row is enclosed in curly brackets. Percentages under 10% for particular (clusters of) features are not taken into account.

Table 9: Creations: features and percentages

	[+dynamic]	[–dynamic]	[+dynamic, +IEPS, +Loc]	[+dynamic, +Loc]	[+dynamic, +Loc, –evaluation]	[+dynamic, +similative]	[+accumulation]	[habitual]	{–evaluation}
-ízo	43.75		10.42			31.25			
-éno	42.86		35.71						
-évo	44.44	15.56	22.22						
-óno	25.00			25.00	20.83				
-ázo[46]	100.00								
-iázo	25.00		20.83			25.00	16.67		20.83
-íno			66.66						

As can be seen, the most versatile suffix is *-iázo*, which incorporates a variety of features (five clusters) in its structure. It is followed by *-ízo, -évo,* and *-óno* (three clusters). Two clusters of features are allocated to *-éno* and in the last place show up *-ázo* and *-íno* (one cluster each). These patterns must be seriously taken into account since they are corroborated by the analysis in the other parts of this study.[47] Having done the analysis for this first part, I realize that verb suffixes/endings do have a meaning, though not a sharply differentiated one.[48] Let us now see what the analysis of the other interview tasks suggest.

2.2 Evaluation of created derivatives

This second part of section 2 was the third part of the interviews. In the actual interviews I wanted to avoid interferences from the first part, which was concerned with creations as well. Correspondingly, section 2.3 was actually the second part of the interviews.

2.2.1 The choice of the lexical category of the base and the features of the suffixes

The goal of this task was mainly to find out if there are preferences for specific verb suffixes according to the *lexical category* of the base. In the interviews three groups of verbs were given with the suffixes *-ízo, -évo, -éno, -óno, -(i)ázo,* and *-íno.* Each verb group had the same base, an N, an A, and an ADV,[49] respectively. The verbs do not exist in the Athenian standard dialect and are intuitively not possible/natural, i.e. not attested, and semantically equivocal – cf. the mean averages in Tables 10-12, which are always near the bottom limit.[50] The TPs were asked to score the verbs with 1 (best/more acceptable verb) to 6 (worst/unacceptable verb) points. The TPs were permitted to use the same points for more than one verb. The results are given in Tables 10-12.

Table 10: Evaluation of creations with the N base *potíri* 'glass'

TP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Average
!potirízo	6	6	3	3	3	3	1	4	4	5	2	6	5	1	1	3	6	6	2	6	3	4	5	6	3	3	6	2	**3.86**
!potirévo	6	6	4	5	2	4	6	2	5	6	4	5	3	2	1	2	4	2	1	6	4	3	3	5	5	5	6	6	**4.04**
!potiréno	6	6	4	3	3	3	4	3	3	6	5	5	5	3	3	2	2	5	1	6	2	5	4	6	6	5	6	6	**4.21**
!potiróno	1	3	2	1	1	2	1	1	2	4	5	3	1	1	5	2	4	5	1	3	1	2	1	2	1	4	2	6	**2.39**
!potiriázo	2	6	2	5	3	5	3	6	4	5	4	2	5	2	3	1	1	6	2	3	5	6	2	5	5	2	6	1	**3.64**
!potiríno	6	6	6	6	6	6	6	5	6	6	6	6	2	6	2	4	6	6	5	6	6	1	6	6	6	6	6	6	**5.39**
																											Mean		**3.92**

Table 11: Evaluation of creations with the A base *xlorós* 'green'/'unseasoned'

TP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Average
!xlorízo	3	6	2	3	2	1	3	1	3	2	3	3	3	3	3	2	6	2	1	2	3	3	5	6	4	3	2	3	**2.96**
!xlorévo	2	5	2	2	4	2	3	2	3	4	2	4	5	1	6	3	6	6	1	6	2	6	4	6	2	4	2	3	**3.50**
!xloréno	2	4	4	2	1	3	1	1	2	1	3	2	1	3	5	4	1	2	2	3	1	4	2	2	1	1	2	4	**2.29**
!xloróno	6	6	5	2	5	3	1	2	3	3	6	5	6	2	4	4	2	2	2	6	6	5	3	5	4	6	2	4	**3.93**
!xloriázo	3	6	3	1	2	5	2	6	5	1	2	5	4	2	4	1	5	1	2	6	4	1	1	6	3	4	2	4	**3.25**
!xloríno	2	5	2	5	1	5	5	5	6	4	6	5	2	6	2	4	6	5	2	6	5	2	6	5	6	2	5	4	**4.25**
																											Mean		**3.36**

Table 12: Evaluation of creations with the ADV base *káto* 'down'

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Average
!katízo	6	6	6	5	1	1	2	5	5	6	4	2	3	1	1	5	6	5	2	6	2	5	5	6	1	5	2	6	**3.93**
!katévo	6	6	4	2	1	2	4	1	5	6	5	3	4	2	5	3	6	5	4	6	3	4	4	5	3	1	6	1	**3.82**
!katéno	6	5	5	3	3	4	2	1	4	5	2	4	6	3	2	5	6	3	1	2	4	1	2	5	4	3	6	2	**3.54**
!katóno	3	6	3	2	3	5	1	2	4	4	4	3	6	2	2	5	6	3	2	6	5	3	1	4	2	4	6	6	**3.68**
!katiázo	5	4	4	6	1	5	3	4	5	4	6	5	2	3	1	5	1	1	3	2	1	2	3	6	5	5	2	6	**3.57**
!katíno	6	6	5	6	6	6	6	3	3	4	4	5	6	5	1	5	2	2	4	6	6	6	6	2	6	6	2	6	**4.68**
																											Mean		**3.87**

As can be seen, there are indeed preferences related to the lexical category of the base. Whiles *-éno* is the penultimate candidate in combinations with the concrete N *potíri* (see Table 10), it figures as the best candidate in combinations with the A *xlorós* (see Table 11). Conversely, while *-óno* is the penultimate candidate in combinations with the A *xlorós* (see Table 11), it figures as the best candidate in combinations with the concrete N *potíri* (see Table 10). These are very strong preferences which cannot be ignored, and which must be reframed by means of Lieber's (2004, 2007) primitives/features.

As Lieber (2007) argues, roots and affixes lack syntactic categorization, but have intrinsic semantic categorization in terms of the lexical semantic features that comprise what she calls skeletons. Roots have simple skeletons which give their semantic features and the number of arguments they take. Affixes have the same, plus an indication of their s-selectional properties (see Lieber 2007: 271).[51]

Bearing in mind Lieber's suggestions, I would like to give some more details and make comparisons to the results in section 2.1.3. The suffix *-óno* is by far preferred in combinations with the noun *potíri* (!*potiróno:* average 2.39 with second !*potiriázo:* average 3.64 – see Table 10). In section 2.1.3 we saw that the feature [+Loc] appears most often in the creations in *-óno* (54.17%). If we assume a feature hierarchy in the suffixes which constrains base

compatibility, then the strong feature [+Loc] in *-óno* calls for a strong preference for a [+material] base.

As mentioned above, the suffix *-éno* is preferred in combinations with the adjective *xlorós* (!*xloréno:* average 2.29 with second !*xlorízo:* average 2.96 – see Table 11). In section 2.1.3 we saw that the feature combination [+dynamic, +IEPS, +Loc] was the most prominent in the suffix *-éno* (35.71%). I propose that this feature combination is high in a feature hierarchy for this suffix and more closely related to [–dynamic] bases, in this case As.

We gain similar averages for *-ízo, -évo, -éno, -óno,* and *-iázo* in combinations with the ADV/P *káto* (with the exception of *-íno* having the lowest percentage; see Table 12). These patterns suggest that ADVs/Ps are less selective in relation to verb suffixation as opposed to Ns and As.[52] This again may have to do with the featural makeup of Ps/ADVs. In the case of *káto,* there is a single feature [+Loc] in the skeleton which significantly differs from the features usually attested in Ns and As.

Some further remarks: it is a justification for this evaluation task that the suffix *-íno* always figures as the worst candidate. *-íno* has a restricted causative (or RESULTATIVE) semantics and is less productive than the other suffixes (see section 1.1). The fact that the creations in *-iázo always* figure close to the mean averages suggests that the respective suffix performs equally well, i.e. indifferently, in relation to the category of the base. Since in section 2.1.3 this suffix showed a great variety of features, I assume that a feature alignment/balance neutralizes the choice of this suffix.

In conclusion, it seems that the featural decomposition of lexical categories has at least the same power for accounting for selection in derivation as c-selection. In some cases, semantic features in suffixes provide much finer distinctions than simply the preference for a certain lexical category.[53] I cannot decide the issue in this study, since I have not yet elaborated a system of structures for both bases and suffixes. This system must take into account both denotational and socio-expressive aspects of meaning (cf. section 3).

2.2.2 The meaning of the best candidate: feature extraction

After the evaluation of the verb creations I asked the test persons to give a meaning for the best candidates, i.e. the candidates with the highest score in each group. Unfortunately, this request was made from the 14th test person on. I would not like to report about the results since they would have a limited value. In the following, I only point out two important patterns which emerged from the analysis. They support or disambiguate features/feature clusters emerged in the other interview tasks.

(i) The cluster [+dynamic, +IEPS, +Loc] for *-óno* shows up clearly in section 2.4.1. In section 2.1.3 I was reluctant to posit a feature [+IEPS] within this cluster. However, the same cluster shows up clearly in relation to the creations of the present interview part, cf. the

interpretations for !*potiróno* 'equip/fill with drinking glasses', 'to close in on so.' (slang), 'cover something with a drinking glass', 'fill the glass', etc. (total: 9 interpretations out of 19).

(ii) The feature {–evaluation} for *-iázo* showed up clearly in section 2.1.3. In section 2.3 the same suffix was sporadically reported by the TP as [–aesthetic/correct] or [+derisive], i.e. again with a negative evaluation. In addition, {–evaluation} shows up clearly in relation to the creations of the present interview part, cf. the interpretations for !*potiriázo* 'I fume at/over having washed a lot of drinking glasses', for !*xloriázo* 'become cream-faced, pale', and for !*katiázo* 'stunt something/make it sit'.

To conclude, the cluster [+dynamic, +IEPS, +Loc] for *-óno* and the feature {–evaluation} for *-iázo* are taken into consideration in the final results of section 3.

2.3 Differences in verb pairs with different suffixes

In this part of the interview, nineteen established verb pairs with different suffixes were presented (see Tables 13 and 15 in section 2.3.2 below). The TPs were asked to tell the interviewer or to write down[54] whether there was some difference between them and what exactly this difference was. The verbs were taken from Charitonidis (2005: 89-129) in which the meaning equivalence between both members of the verb pairs was attested.[55] The verbs were familiar to the native Greek speaker and in everyday use. As regards the composition of the verb list, it contained ten pairs in *-ízo* and *-áo,*[56] one pair in *-ízo* and *-éno,* one pair in *-ízo* and *-évo,* five pairs in *-ízo* and *-iázo,* and two pairs in *-ízo* and *-ó.*

2.3.1 The meaning of alternations/features

After I had collected the answers from all 27 TPs[57], I tried to extract the distinctive factors by using alternation. This was not always easy, esp. in cases where the TPs had given a vague answer or an answer which could not be linguistically described. I then chose the linguistic description which in my view was the closest to the response content. I would like first to give the general makeup of the defined alternations (alternations 5 and 15 have only one member).

1. transitive/intransitive: the exact indication of the alternation as "transitive/intransitive" was mostly given by the TPs as such.
2. causative/inchoative: the TP used a coherent meaning continuum in his/her description, e.g. 'make x acquire a property'/'x acquires a property' (cf. *asximízo/asximéno:* 'make someone ugly'/'someone becomes ugly').
3. control/auto: the TP used a word such as 'consciously'/'unconsciously' for the respective alternation members.
4. reflexive/auto: the TP used an expression such as 'make something to her-/himself'/'become something due to external causes.'

Note: in the analysis I have accommodated alternations 1-4 under the cover term "transitivity alternations" since alternations 2-4 emerged only sparsely (cf. Tables 13 and 15).

5. different SRs: different selectional restrictions were given by the TPs for subject or object.

6. literal/similative: the TP used a formulation such as 'be someone'/'behave like someone.'

7. literal/metaphorical: the TP mostly used the adverb "metaphorically" as such for the second alternation member.

8. semelfactive or simple/habitual: the TP used expressions such as *edhó ke ekí* (approximately equivalent to the English word "around" in the expression "pace around") or *sixná* 'often' for the second alternation member.

9. non-intensive/intensive: the TP described the second alternation member as "do something to a larger extent" or "do something more intensively."

10. non-fullness/fullness: the fullness member was described as "fill with x," "be full of x," where x stands for the content of the verb base. This fullness feature correlates/is equivalent with the feature [+accumulation] in section 2.1.

11. standard/subtle register difference: in this case a multiplicity of style indications is accommodated. The indication 'low class-provincial' is separately given under 16 because it was often given by the TPs.

12. more/less (phonologically) aesthetic or correct: this indication was given by the TPs as such without further explanations.[58]

13. BE/BECOME: this alternation was given only once with the formulation "be x"/"become x" (see *asximízo/asximéno*).

14. causative/in-oneself: the 'in-oneself' reading was given for verbs such as *gharghalízo* meaning 'have a tickle (in the throat)' as opposed to the causative member *gharghaláo* 'tickle someone else.'

15. other meaning difference: various interpretations.

16. standard/low class-provincial: this indication was adopted by the TPs "as is."[59]

2.3.2 Results and discussion. The status of the ending *-áo/-ó.*

The main body of the results of the alternations interview are presented in Table 13. All verbs therein have a distinct base and thus are regarded as instances of derivation. Italics in the values represent the alternation members being placed in the opposite order.

Table 13: Alternations for the rival verb suffixes/endings: verbs with a distinct base

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
progízo/progáo	1	0	0	x	0	x	16	x	?	x	x	0	*9*	0	x	x	x	0	0	0	x	5	*1*	x	x	x	x	0
serghianízo/serghianáo	1	16	0	0	0	16	16	0	?	8	0	0	*9*	8	0	x	x	0	0	0	0	0	8	x	0	x	11	0
asximízo/asximéno	1	3	*1*	1	1	*12*	1	1	?	0	1	x	1	0	2	x	7	*2*	2	1	2	13	*2*	0	1	4	0	1
nostimízo/nostimévo	1	0	1	0	1	5	0-*6*	0-5&7	?	1	1	*1&7*	1&7	0	0	0	7	0	1&7	0	0	1&7	0	*1*	1&7	0-1&7	0	?
kitrinízo/kitriniázo	1	7	0	0	1	16	11	0	?	1	1	0	1&7	*7*	1&7	1&7	x	0	*1*	1	0	1&7	*2*	1&7	0	1&7	12	0
tagízo/tagiázo	0	x	0	x	1	x	x	x	?	x	x	x	7	x	x	x	x	x	x	0	x	x	x	x	x	x	x	x
anthízo/anthó	0	7	0	0	0	12	11	0-5&7	?	5&7	0	0	7	0	0	0	0	0	0	0	0	0	8	0	0	1&7	12	x
manízo/maniázo	0	x	1	x	x	x	11	x	?	x	9&16	x	*6*	x	0	x	x	1	x	x	x	x	x	x	x	2	x	x
luludhízo/luludhiázo	0	10	0	0	0	x	16	0	?	*7*	1	x	*1*&10&*7*	0	0	x	x	0	7	x	0	5&*7*	0	0	0	10&*7*	0	0
ksafnízo/ksafniázo	*1*	*9*	0	0	0	x	15	0	?	*8*	0	x	x	0	0	x	x	*1*	0	x	0	x	*1*	x	0	x	0	x
murmurízo/murmuráo/-ó	5	0	0	0	0	*12*	16	0	?	0	0	0	0	0	0	0	8	0	0	0	0	?	0	0	0	0	0	*8*
stubízo/stubáo	0	*9*	0	0	0	12	16	x	?	1	0	x	0	0	0	x	x	0	0	0	0	0	0	x	x	x	0	x
kutsulízo/kutsuláo	0	*11*	0	0	0	x	16	0	?	0	0	0	*8*	0	0	0	x	0	0	0	0	x	0	0	0	0	0	x
delalízo/delaló	0	x	0	0	0	0	x	x	?	*9*	0	0	*6*	x	0	x	8	0	0	x	0	*6*	15	0	0	0	0	x
skorpízo/skorpáo/-ó	1	*11*	1	0	0	11	16	0	?	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0

0: no difference 1: transitive/intransitive 2: causative/inchoative 3: control/auto 4: reflexive/auto 5: different SRs 6: literal/similative 7: literal/metaphorical
8: semelfactive-simple/habitual 9: non-intensive/intensive 10: non-fullness/fullness 11: standard/subtle register difference 12: more/less (phonologically) aesthetic/correct
13: BE/BECOME 14: causative/in-oneself 15: other meaning difference 16: standard/low class-provincial x: unknown (one or both members)?: missing/poor data
Italics: opposite order of the alternation members[60]

The main patterns emerging from the analysis exemplified in Table 13 are:[61]

(i) 0 predominates in the TP responses. This implies that at the level of a general meaning both suffixes/endings in the members of the most alternation pairs are equivalent. Since there was an attested meaning equivalence in the choice of the members of the alternation pairs, this result was to be expected.

(ii) The *similative* feature (6) is exclusively reported for *-ízo,* see *nostimízo* 'flavour', 'make tasty' (*nóstimos* 'tasty'), *manízo* 'get angry' (*manía* 'mania', 'fury', 'anger'), *delalízo* 'anounce sth. as a town crier'/two times (*delális* 'town crier'). This pattern is in accordance with the patterns in section 2.1.3 und in Charitonidis (2005: 149-151), where the high productivity of this suffix in the SIMILATIVE field is reported.

(iii) Another interesting pattern is attested with the variable/alternation *semelfactive-simple/habitual* (8): the habitual feature was reported almost exclusively for ending *-áo/-ó* (four times), but also for *-ízo* in connection with an *-iázo* (one time) or *-áo/-ó* (two times) member. It was reported once for *anthó* 'blossom', 'bloom' (*ánthos* 'blossom', 'bloom') and *delaló,* despite the absence of -a- in the base. This habitual preference of *-áo/-ó* and its presence in an inversed pattern with *-ízo* suggest that these two endings compete with one another for the expression of this feature.

(iv) The feature *intensive* (9) was reported for *-ízo* (*progízo* 'boo', 'hiss', 'shout down', 'shy' (animal) 'scare' (*próga* 'booing', 'hissing', 'aggressive teasing'), *serghianízo* 'take so. for a walk', 'go for a walk' (*serghiáni* 'walk'), *ksafnízo* 'surprise' (*éksafna* 'suddenly'), *stubízo* 'pestle' (*stúbos* 'pestle'), *delalízo), -iázo* (*maniázo*), and *-áo/-ó* (*skorpáo/-ó* 'scatter', etc. (*skórpios* 'scattered')). There is thus a clear preference for *-ízo* to express this meaning component.

(v) The *fullness* ([+accumulation]) feature (10), reported for *-iázo* in section 2.1, appears in this section as well: see *luludhiázo* 'flower', 'blossom' (*lulúdhi* 'flower', 'blossom') (3 times from different TPs).

(vi) The ending *-áo/-ó* was sometimes given with a *low class/provincial reading* (alt. 16), see *progáo* (1TP), *serghianáo* (3TPs), *murmuráo/-ó* 'murmur' (*mur-mur* 'murmur') (1TP), *stubáo* (1TP), *kutsuláo* 'throw droppings', 'dirty with droppings' (*kutsuliá* 'droppings') (1TP), and *skorpáo/-ó* (1TP). The same is true for suffix *-iázo: kitriniázo* 'yellow', 'become yellow' (*kítrinos* 'yellow') (1TP), *maniázo* (1TP), *luludhiázo* (1TP). TP7 more often gave this style preference (7 times). It is remarkable that this style was not reported for the other suffixes.

For the other features/alternations only sparse patterns emerged (see Table 13 for details). Table 14 summarizes the patterns in (i)-(vi), whereby feature correlations which sporadically occurred are left out.

Table 14: The meaning of suffixes/endings in relation to alternations

	[+similiative]	[+habitual]	{+intensive}	[+accumulation]	{+low class/ provincial}
-ízo	✓	✓	✓		
-éno					
-évo					
-óno					
-iázo				✓	✓
-íno					
-áo/-ó		✓			✓

The main issues which arise from the judgements in Table 13 are:

(i) the *transitivity alternations* (TAs) reported by 18 TPs for *asximízo/asximéno* 'make ugly' (*ásximos* 'ugly') are not accompanied by *metaphorical shifts*[62] (MSs) as opposed to *nostimízo/nostimévo* (12 TAs, 6 MSs), and *kitrinízo/kitriniázo* (12TAs, 6MSs). Is this due to the very nature of the suffix *-éno*, which does not allow metaphorical shifts, as opposed to the suffixes *-évo* and *-iázo*?[63]

(ii) In cases where the derivation base was an adjective, many transitivity differences were given (see *asximízo/asximéno, nostimízo/nostimévo,* and *kitrinízo/kitriniázo*) as opposed to cases where the derivation base was something else. Does this pattern support a structure of the derivation base which interacts with (or overwrites) the structure of the suffix, or is the content of the derivation base the only causer of alternations?

(iii) In the case of the suffix *-iázo,* why are the combined occurrences of transitivity and metaphor so rare or absent, cf. the verb pairs *tagízo/tagiázo* 'become rancid' (*tagós* 'rancid') (1TA, no MS), *manízo/maniázo* (3TAs, no MS), *luludhízo/luludhiázo* (2TAs, 1MS), and *ksafnízo/ksafniázo* (3TAs, no MS) as opposed to the pair *kitrinízo/kitriniázo* (12TAs, 6MSs)?

(iv) Another remarkable pattern is the *inversion* of transitivity alternations (Transitivity Inversions or 'TIs') and/or metaphor (Metaphor Inversions or 'MIs').[64] *Asximízo/asximéno* has three TIs with no MI, *nostimízo/nostimévo* has two TIs and one MI, *kitrinízo/kitriniázo* has two TIs and one MI, *luludhízo/luludhiázo* has one TI and four MIs, and *ksafnízo/ksafniázo* has three TIs and no MI. These inversions may have many reasons, e.g. the lexical encoding of verb alternations by the TPs, the absence of example sentences in the test, different patterns in the short-term and/or long-term memory of the TPs, etc. All of these factors must be isolated and tested in future research.

To conclude, I would like to present the results of a minor task embedded into the general task presented in this section. Four established verb pairs were additionally presented which however did not have a distinct base, i.e. they were 'opaque'.[65] As with the other verbs, the TPs were asked to tell the interviewer or to write down whether there was any difference between them, and what exactly this difference was. The verbs were again taken from Charitonidis (2005: 89-129) in which the meaning equivalence between both members of the verb pairs was attested. The verbs were familiar to the native Greek speaker and in everyday use. The results of this minor task are presented in Table 15.

Table 15: Alternations for the rival verb suffixes/endings: verbs with a non-distinct base

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**
gharghalízo/gharghaláo/-ó	*1*	*11*	0	0	0	*12*	x	0	?	0	0	0	x	0	0	x	x	0	0	x	0	x	*1*	0	0	x	x	*14*
tsiglízo/tsigláo/-ó	0	*11*	0	0	0	*12*	16	0	?	0	0	0	0	0	0	0	*8*	0	0	0	0	0&5	*1*	0	0	x	0	*14*
zulízo/zuláo/-ó	0	*9*	0	0	0	?	x	0	?	0	0	x	0	0	0	0	8	0	0	0	0	*9*	0	x	0	x	0	*9*
lighízo/ligháo/-ó	1	0	1	0	0	11	16	0-5&7	?	1	0	1&7	1&7	11	1	0	8	0	0	0	0	1&7	1	0	7	1&7	0	1&7

0: without difference 1: transitive/intransitive 2: causative/inchoative 3: control/auto 4: reflexive/auto 5: different SRs 6: literal/similative 7: literal/metaphorical
8: semelfactive-simple/habitual 9: non-intensive/intensive 10: non-fullness/fullness 11: standard/subtle register difference 12: more/less (phonologically) aesthetic/correct
13: BE/BECOME 14: causative/in-oneself 15: other meaning difference 16: standard/low class-provincial x: unknown (one or both members) ?: missing/poor data
Italics: opposite order of the alternation members

The main patterns emerging from the analysis exemplified in Table 15 are in accordance with the results presented in Table 13: the feature *habitual* (8) was again reported for ending *-áo/-ó* (two times), but also for *-ízo* in connection with an *-áo/-ó* member (one time). The feature *intensive* (9) was again reported for *zulízo* 'squeeze', 'squash' (three times), and the ending *-áo/-ó* was again given with a *low class/provincial* reading (alt. 16), cf. *tsigláo* 'tease', 'goad', 'needle' (1TP) and *ligháo/-ó* 'bend' (1TP). On a par with the verbs with a distinct base, the *-áo/-ó* member of the alternation pair *lighízo/ligháo/-ó* was allocated a metaphorical shift in the transitivity alternations (see the alternation combination 1&7 in Table 15; 10 TAs, 5MSs). All of these patterns corroborate the results from the analysis on the verbs with a distinct base and, last but not least, strongly suggest that the suffixes/endings do carry a meaning independent from strict synchronic considerations.

In relation to the ending *-áo/-ó,* I would have no problems with assuming that it occasionally shows up as a *pseudo-suffix* of a relational character when associated to normally suffixed verbs, in this case *-ízo* verbs. In the following, I give the following reasons for this claim:

(i) Several interviewed persons were aware of the difference between *-ízo* and *-áo/-ó* in the respective alternation pairs. The semantic components for *-áo/ó* which I isolated from the answers of the TPs were: [+habitual] (four TPs) and {+low class/provincial} (4TPs) (see Table 14).[66] This means that not only the denotational content of this ending is sometimes regarded as different (see [+habitual]) but also the socio-expressive content (see {+low class/provincial}).

(ii) Though in the interviews I had defined *-áo/-ó* as one member of the alternation pair, I noticed that the TPs largely ignored the *-ó* variant in their answers when they made the comparison with *-ízo.* This preference suggests that -a- in the ending *-áo* is juxtaposed with -íz- in the ending *-ízo.* However, this pattern may be due to regional/dialectal preferences mentioned in section 1.1. Whether -a- in *-áo* develops into a derivational suffix, esp. in the centrally located area of Athens, is an open question. The TP reactions in this interview task and various morphological accounts up to this time (see section 1.1) do not suffice for such a strong generalization.

According to these observations we can reassess the status of the feature *intensive.* This feature is the product of the informants' intuitions on verbs with rival endings, i.e. *-ízo* and *-áo/-ó* verbs. The semantics of *-áo/-ó* is regarded as "weaker" than the semantics of *-ízo*. In other words, it is likely that *-áo/-ó* shows up with a habitual feature because it compensates for the semantics of *-ízo.* More experiments must be made in order to define whether the *intensive* feature is a real lexical feature and/or whether this feature is exclusively allocated to *-ízo*.

2.4 Emergence of suffix meanings in (near) antonymy

In the previous sections, the analysis of the interviews revealed many factors which influence the meaning and choice of suffixes. It is interesting to see now whether a native speaker can express meaning components in the suffixes paradigmatically, esp. in terms of (near) antonymy. For this third part of the interviews 21 established verbs[67] with the endings *-ízo, -évo, -éno, -óno, -(i)ázo,* and *-íno* were presented (see Table 16). The 26 TPs[68] were asked to give the "opposite" or "near opposite" expression for each verb. The rationale behind this instruction is that the semantic core of the suffixes examined becomes explicit through the juxtaposition of the respective derivatives with antonym expressions, whereby special meanings for the suffixes may emerge.[69] This experiment was conceived as a variant of juxtaposing antonymous affixed verbs in order to exemplify the meaning of the affixes (cf. Fleischer & Barz 1995: 348 who juxtapose antonymous deverbal verbs with different prefixes in German).

2.4.1 Hypotheses for the suffix meanings on the basis of (near) antonyms and the assumed primitives/features

Table 16 summarizes the attested patterns in the antonymy experiment. Two or more occurrences of the same or similar antonym introduced an assumed primitive/feature. In the row labelled '(Near) Antonyms', the most frequent and prominent TP statements are given. 'ZR' stands for 'zero response.' The bases of the derivatives are given in Table 18 with the same number in the leftmost row.

Table 16: (Near) antonyms for verb derivatives and the assumed primitives/features

	Verb	**(Near) Antonyms**	**ZR**	**Hypothesis for the suffix meaning**	**Assumed primitive/feature**
1	*xaramízo* 'waste'	*aksiopió* 'turn to account' (9/26) *ekmetalévome* 'utilise' (3/26)	1	do	[+dynamic]
2	*sinetízo* 'bring so. to reason'	*adhiaforó* 'be indifferent to' (2/26) *parasérno/parasíro* 'lead astray' (3/26)	3	be actively involved in an action, bring an action to an end, explicitly affect an entity	[+dynamic, +IEPS, +Loc]
3	*tufekízo* 'shoot with a rifle'	*sózo* 'save'/'rescue' (3/26) *xaidhévo* 'caress' (2/26)	12	successfully do once or more (be *actively* involved in an action, bring an action to an end, explicitly affect an entity)	[+dynamic], ([+IEPS, +Loc])
4	*lathévo* 'to be at fault' etc.	*epitighxáno* 'succeed' (3/26) *íme sostós* 'be right' (7/26) *káno to sostó* 'do the right thing' (6/26)	2	do, be, succeed	[+dynamic], [–dynamic, +Loc]
5	*taksidhévo* 'journey', 'travel', etc.	*méno stásimos* 'be fixed in one place'/'remain unimproved' (10/26)	1	become, improve	[+dynamic, +IEPS, +Loc], {+evaluation}
6	*aghriévo* 'become angry with so', etc.	*imerévo* 'become gentle', 'quieten' (9/26) *iremó* 'collect oneself', 'cool off' (15/26)	0	become	[+dynamic, +IEPS, +Loc]
7	*proedhrévo* 'preside', 'chair'	*akoluthó* 'comply' (2/26) *íme aplós polítis* 'be a simple citizen' (1/26) *íme ipotelís* 'be a bondservant/liegeman' (1/26) *ipovivázome* 'be demoted' (1/26)	6	do/be a positive or better something	[+dynamic], [–dynamic, +Loc], {+evaluation}
8	*kutséno* 'halt', 'limp'	*perpatáo/perpató* 'walk' (6/26) *tréxo* 'run' (3/26) *perpató/perpatáo + kanoniká, sostá,* etc. 'walk' + 'normally', 'properly', etc. (7/26)	1	have a property (be)	[–dynamic, +Loc]
9	*kuféno* 'be deaf', 'deafen'	*akúo* 'hear' (7/26) *akúo kalá/orthá* 'hear well' (3/26)	4	have a property (be)	[–dynamic, +Loc]

10	*vuvéno* 'be dumb', 'be mute'	*fonázo/fonaskó* 'shout'/'scream' (5/26) *miláo/miló* 'speak' (8/26)	1	have a property (be)	[–dynamic, +Loc]
11	*vathéno* 'deepen'	*ipsóno* 'raise' (3/26) *rixéno* 'be/become shallow' (8/26)	0	do, be, become	[+dynamic], [–dynamic, +Loc], [+dynamic, +IEPS, +Loc]
12	*lighdhóno* 'smear'	*katharízo* 'clean' (14/26) *pléno* 'wash' (2/26) *skupízo* 'wipe'/'dry' (2/26)	2	actively do, transfer	[+dynamic, +IEPS, +Loc]
13	*plighóno* 'injure', 'wound'	*aghapó* 'love' (3/26) *frodízo* 'take care' (3/26) *ghiatrévo* 'cure'/'heal' (3/26) *therapévo* 'cure'/'heal'/'remedy' (6/26)	2	disposition, induce a state	[+dynamic], [+dynamic, +IEPS, +Loc]
14	*areóno* 'dilute', 'thin sth. (down)', etc.	*piknóno* 'concentrate'/'densify'/'thicken' (13/26) *pízo/pízi* 'thicken' (5/26)	0	induce a state, become	[+dynamic, +IEPS, +Loc]
15	*aghiázo* 'hallow', 'become holy'	*amartáno* 'sin' (3/26) *dhemonízo* 'infuriate'/'drive mad' (5/26) *kolázo* 'tempt' & 'disgrace' (3/26)	6	do, induce a state	[+dynamic], [+dynamic, +IEPS, +Loc]
16	*veloniázo* 'stitch'	*rávo* 'sew'/'stitch' (2/26) *kseveloniázo* 'undo stitching' (1/26) *ksilóno* 'unstitch', etc. (1/26)	17	do, connect	[+dynamic], [+dynamic, +IEPS, +Loc], [+contact]
17	*komatiázo* 'split', 'cut up', etc.	*enóno* 'piece together'/'combine'/ 'conjoin'/'unite' (14/26)	0	induce a state	[+dynamic, +IEPS, +Loc]
18	*bibikiázo* 'get black-heads', etc.	*éxo katharó prósopo* 'have a clean face' (2/26) ' *ighiéno* 'be healthy' (2/26)	10	be	[–dynamic, +Loc]
19	*eksusiázo* 'govern', 'rule', etc.	*eksusiázome* 'be controlled/dominated/ruled' (5/26) *íme ipotelís* 'be bondservant/ liegeman/subject/vassal' (3/26) *ipodhulónome* 'be enslaved/subjugated' (4/26)	2	do	[+dynamic]
20	*labríno* 'dignify', 'grace'	*skotiniázo* 'darken'/'obscure' (19/26)	0	become or induce a state	[+dynamic, +IEPS, +Loc]
21	*leptíno* 'attenuate', 'thin'	*paxéno* 'become (more) fat' (7/26) *xodréno* 'make/become (more) fat', 'make/become (more) thick' (14/26)	0	become, orient	[+dynamic, +IEPS, +Loc], [+direction]

Table 16 contains stimulus verbs such as *tufekízo* 'shoot' or *taksidhévo* 'travel' which might not legitimately be thought to have antonyms. As will be shown in sections 2.4.2 and 2.4.3, the difficulty of finding an opposite concept in this experiment points to the independent status of the suffixes and bases examined, esp. to the status of the suffixes as *signs*.

The obvious question as regards the analysis exemplified in Table 16 is whether the suffix groups show a homogeneous meaning or not, and what the similarities or differences between the particular suffixes are. Let us look at the six groups.

(i) *xaramízo, sinetízo, tufekízo:* in all three verbs, suffix *-ízo* shows up with an action meaning, varying from a simple action (*xaramízo*) to explicit affecting actions (*sinetízo, tufekízo*).

(ii) *lathévo, taksidhévo, aghriévo, proedhrévo:* action, state and inchoative readings show up in the opposites. The suffix *-évo* can be paraphrased as 'do'/'be' (*lathévo, proedhrévo*) or as 'become' (*taksidhévo, proedhrévo*). An improvement/positive component for *taksidhévo* and *proedhrévo* is suggested by the opposites.

(iii) *kutséno, kuféno, vuvéno, vathéno: -éno* shows not only 'do' and 'be' semantics but also some 'become' readings (see *vathéno*).

(iv) *lighdhóno, plighóno, areóno: -óno* mainly shows up with a transfer/induce component (*lighdhóno, areóno*) and with a disposition component (*plighóno*).

(v) *aghiázo, veloniázo, komatiázo, bibikiázo, eksusiázo:* the components 'many'/'all over' (*veloniázo, bibikiázo*), 'all' (*komatiázo*), and emotion (*aghiázo, eksusiázo*) are here evident. The first two are already known from the other interview parts as the features *accumulation* or *fullness*.

(vi) *labríno, leptíno: -íno* refers in both verbs to real/external 'become' situations, set apart from any metaphorical or psychological reading. In the case of the verb *labríno*, this pattern is striking because this verb is mainly used metaphorically in MG. It is thus evident that for the opposites a prototypical lexical meaning is addressed by the TPs. Last but not least, this fact justifies my method in this interview part.

Table 17 summarizes the main feature patterns for each suffix which emerged from the antonymy task. Again, denotational features are enclosed in square brackets, and socio-expressive features in curly brackets.

Table 17: Assumed primitives/features for the verb suffixes according to (near) antonyms

	[+dynamic]	[+dynamic, +IEPS, +Loc]	[–dynamic, +Loc]	[+accumulation]	[+direction]	[+contact]	{+evaluation}
-ízo	✓	✓					
-éno	✓	✓	✓				
-évo	✓	✓	✓				✓
-óno	✓	✓					
-iázo	✓	✓	✓	✓		✓	
-íno		✓			✓		

Leaving aside the features {+evaluation}, [+contact], and [+direction] which appear only sporadically, the main patterns in Table 17 are: (i) all verb suffixes are potentially [+dynamic] and [+dynamic, +IEPS, +Loc], except for the verbs in *-íno*, which cannot be simply [+dynamic], (ii) *-évo, -éno,* and *-iázo* may also be [–dynamic], and (iii), *-(i)ázo* is again the most versatile suffix, with five features represented in its structure.

2.4.2 Zero-responses and the category of the base

In the following, I would like to explain what the zero-responses in Table 16 suggest. They are repeated in Table 18 in decreasing order, together with the ontological characterization of the derivation base (see Lieber 2004, 2007).

Table 18: The zero-responses in the antonymy task in relation to the ontology of the verb base

	Verb	Base	Base ontology	ZR
16	*veloniázo*	(N) *velóna* 'needle', 'pin'	[+material] SUBSTANCE/THING/ESSENCE	17
3	*tufekízo*	(N) *tuféki* 'rifle'	[+material] SUBSTANCE/THING/ESSENCE	12
18	*bibikiázo*	(N) *bibíki* 'black-head', 'zit'	[+material] SUBSTANCE/THING/ESSENCE	10
7	*proedhrévo*	(N) *próedhros* 'chairman', 'president'	[+material, dynamic[a]] SUBSTANCE/THING/ESSENCE	6
15	*aghiázo*	(A) *ághios* 'holy', 'saint'	[–dynamic, –scalar] SUBSTANCE/THING/ESSENCE	6
9	*kuféno*	(A) *kufós* 'deaf'	[–dynamic, +scalar] SUBSTANCE/THING/ESSENCE	4
2	*sinetízo*	(A) *sinetós* 'discreet', 'prudent'	[–dynamic, –scalar] SUBSTANCE/THING/ESSENCE	3
4	*lathévo*	(N) *láthos* 'error', 'mistake', 'wrong'	[–material, dynamic] SUBSTANCE/THING/ESSENCE	2
12	*lighdhóno*	(N) *líghdha* 'grime'	[+material] SUBSTANCE/THING/ESSENCE	2
13	*plighóno*	(N) *plighí* 'wound'	[+material] SUBSTANCE/THING/ESSENCE	2
19	*eksusiázo*	(N) *eksusía* 'authority', 'control', etc.	[–material, dynamic] SUBSTANCE/THING/ESSENCE	2
1	*xaramízo*	(ADV) *xarámi* 'in vain', 'be wasted'	?[–material] SUBSTANCE/THING/ESSENCE, ?[–Loc][b]	1
5	*taksidhévo*	(N) *taksídhi* 'journey', 'travel', 'trip'	[–material, dynamic] SUBSTANCE/THING/ESSENCE	1
8	*kutséno*	(A) *kutsós* 'gammy', 'lame'	[+dynamic, +scalar] SUBSTANCE/THING/ESSENCE	1
10	*vuvéno*	(A) *vuvós* 'dumb', 'mute'[c]	[–dynamic, –scalar] SUBSTANCE/THING/ESSENCE	1
6	*aghriévo*	(A) *ághrios* 'wild', 'fierce', etc.	[–dynamic, +scalar] SUBSTANCE/THING/ESSENCE	0
11	*vathéno*	(N) *váthos* 'depth'	[–material] SUBSTANCE/THING/ESSENCE	0
14	*areóno*	(A) *areós* 'runny', 'thin', etc.	[–dynamic, +scalar] SUBSTANCE/THING/ESSENCE	0
17	*komatiázo*	(N) *komáti* 'piece'	[+material] SUBSTANCE/THING/ESSENCE	0
20	*labríno*	(A) *labrós* 'bright', 'brilliant', etc.	[–dynamic, +scalar] SUBSTANCE/THING/ESSENCE	0
21	*leptíno*	(A) *leptós* 'thin', 'slim', etc.	[–dynamic, +scalar] SUBSTANCE/THING/ESSENCE	0

[a] The feature [dynamic] in the representations of processual SUBSTANCES/THINGS/ESSENCES of this section is unspecified for value, according to the assumptions of Lieber (2004: 28), who assumes that further specification of this feature takes place at a higher level of semantic representation.

[b] I cannot decide on the lexical and ontological status of *xarámi*. The first option is [–material] N and the second a kind of [–Loc] P. The latter option brings this ADV close to the semantics of privative adpositions/affixes (see Lieber 2004: 102-125).

[c] *Vuvós* is ambiguous in respect to the feature [+volitional]. Cf. the analysis of *standee* and *escapee* in Lieber (2004: 64-66).

The three derivatives with the most zero responses, i.e. *veloniázo* (17 ZRs), *tufekízo* (12ZRs), and *bibikiázo* (10ZRs), have a [+material] SUBSTANCE/THING/ESSENCE in their base, without the feature [dynamic]. [+material] SUBSTANCES/THINGS/ESSENCES have *non*-SUBSTANCES/THINGS/ESSENCES as complementaries, i.e. the entities *non-velóna, non-tuféki,* and *non-bibíki,* and these *non*-entities refer to all the rest of the objects but the referents of their bases (see Löbner 2002: 76f). For this reason, their (near) antonyms sum up a multiplicity of actions which cannot be easily conveyed, e.g. if one does not shoot with a rifle then one may not wound, or punch so., etc. (see *tufekízo*). In other words, the inability of the TPs to give an opposite verb is explained by the fact that a choice had to be made between an immense number of situations.

It is true that *lighdhóno, plighóno,* and *komatiázo* also have [+material] SUBSTANCES/ THINGS/ESSENCES in their bases but only a few or no zero responses (see Table 18). These SUBSTANCES/THINGS/ESSENCES are not on the same categorization level as the bases of *veloniázo, tufekízo,* and *bibikiázo:* grime, a wound, or a piece (see the bases of *lighdhóno, plighóno* and *komatiázo*) may represent many different things as opposed to needles, rifles, and black-heads (see the bases of *veloniázo, tufekízo,* and *bibikiázo*) which refer to concrete, indifferent objects.

Almost all of the rest of the derivatives with fewer ZRs are SUBSTANCES/THINGS/ ESSENCES with a value of the feature [dynamic] in their base. I assume that the [dynamic] feature of these entities is more related to the [dynamic] feature of SITUATIONS (verbs), so that an opposite process (=verb) could be found easily (see Table 18 for details).

Although the prefix *kse-* 'un-' expresses opposite meanings in Modern Greek, it appears only seldom in the responses of the TPs. I here cite the respective cases which emerged in the interviews: *aghiázo/kse-aghiázo, veloniázo/kse-veloniázo, bibikiázo/kse-bibikiázo.* These *kse*-responses are likely to be connected with the ZRs and/or the ontological status of the base. Particularly, all three *kse-* creations are allocated to 17 (*veloniázo*), 10 (*bibikiázo*), and 6 (*aghiázo*) ZRs, i.e. to verbs for which an opposite concept could not be easily found. And since *veloniázo* and *bibikiázo* stand high on the list in Table 18, I assume that *kse-* attaches more easily as a reversive prefix to verbs with a [+material] SUBSTANCE/THING/ESSENCE in their base (see Table 18). Nonetheless, *kse-* is a prototypical [–Loc] prefix (cf. Efthymiou 2001, 2002) and similarly [+material] entities are prototypical SUBSTANCES/ THINGS/ESSENCES. Therefore, it would be strange if they could not easily combine.

In conclusion, I would like to report a last pattern in the responses of the TPs. Where possible, the TPs easily gave an opposite concept with the same suffix. These most frequent cases were: (i) *aghriévo-imerévo* ('quieten') (7TPs), (ii) *vathéno-rixéno* ('be/become shallow') (8TPs), and (iii) *areóno-piknóno* ('concentrate/densify/thicken') / *sibiknóno* ('concentrate') (13TPs). These patterns suggest that the TPs content themselves with a given morphological element, in this case a suffix, when giving an antonym (economy). Particularly, they depart from a given suffix in order to select another base. This again suggests that verb suffixes are

able to strengthen their semantic representation or 'resting activation' (cf. Plag 2005) through paradigmatic relations.

2.4.3 Conclusion

Section 2.4.1 showed that skeleton features/primitives do emerge in the semantics of the Greek verb suffixes, and this again supports their sign-based treatment. A conflicting pattern emerged in the parallel existence of [+dynamic] and [–dynamic] interpretations for the same suffixes (see the derivatives in *-évo, -óno,* and *-iázo* in Table 16). This fact is not predicted in Lieber's (2004, 2007) theory, and it must be somehow accommodated (se also sections 2.1.3 and 3). Section 2.4.2 showed how important the parallel examination of zero-responses is together with the examination of the category of the base of the presented derivatives. We saw that the verb bases do have an independent semantic content, distinct from the semantic content of the suffixes. Again, this is an argument for a sign-based treatment of the latter.

3 General results

The main goal of this study set in the Introduction was to assess a meaning for the Greek verb suffixes *-ízo, -éno, -évo, -óno, -(i)ázo,* and *-íno*, with special account of the ending *-áo/-ó.* In this section I will address this main goal while considering both the denotational and socio-expressive level of meaning.

There is a controversy among researchers as to whether affixes carry a meaning or not, and if they do carry one, how explicit this meaning is[70] – the respective research threads are subsumed under the labels 'separation hypothesis' (Anderson 1992, Beard 1995, Corbin 1987, Szymanek 1988, etc.) and 'sign-based hypothesis' (Lieber 2004, Melissaropoulou & Ralli 2010, Plag 1999, 2000, etc.). In this study I have opted for the sign-based hypothesis and particularly for Lieber's view that affixes do carry a meaning, but one which is not as rich as that of the bases to which they attach. Having adopted as a working hypothesis some of Lieber's (2004, 2007) primitives in a featural manner, I tried to see whether additional features interfere with her system which by means of a further elaboration could account more accurately for the selectional properties of suffixes.

As already implied in the Introduction, the reliability of the analysis of the interviews is enhanced if the results of the analysis of data elicited with non-existing derivatives (see sections 2.1 and 2.2) are in accordance with the data elicited with existing derivatives (see sections 2.3 and 2.4). The repetition of a pattern in at least two interview parts introduces a feature or feature cluster for each suffix. As an exception, special focus is placed on the alternations of section 2.3, which introduces several features – though the patterns therein are mostly not confirmed in the other sections of this study.

Table 19 summarizes the results. Again, denotational features are enclosed in square brackets, and socio-expressive features in curly brackets. Example verbs for all features or feature combinations can be found in section 2.1.2.

Table 19: The meaning of the native Greek verb suffixes and the verb ending *-áo/-ó*

	[+dynamic]	[–dynamic]	[+dynamic, +IEPS, +Loc]	[+dynamic, +similative]	[+accumulation]	[+habitual]	{+intensive}	{–evaluation}	{+low class/ provincial}
-ízo	✓[a]		✓[b]	✓[c]			✓[d]		
-éno	✓[e]		✓[f]						
-évo	✓[g]	✓[h]	✓[i]						
-óno	✓[j]		✓[k]						
-iázo	✓[l]		✓[m]		✓[n]			✓[o]	
-íno			✓[p]						
-áo/-ó						✓[q]			✓[r]

IEPS: 'Inferable Eventual Position or State' (Lieber 2004)

[a]2.1.3, 2.4.1 [b]2.1.3, 2.4.1 [c]2.1.3, 2.3.2 [d]2.3.2 [e]2.1.3, 2.4.1 [f]2.1.3, 2.4.1
[g]2.1.3, 2.4.1 [h]2.1.3, 2.4.1 [i]2.1.3, 2.4.1 [j]2.1.3, 2.4.1 [k]2.2.2, 2.4.1 [l]2.1.3, 2.4.1
[m]2.1.3, 2.4.1 [n]2.1.3, 2.3.2, 2.4.1 [o]2.1.3, 2.2.2 [p]2.1.3, 2.4.1 [q]2.3.2 [r]2.3.2

The patterns in Table 19 convey the general profile of the native Greek verb suffixes. For further details, the reader is referred to the sections given under the table. The features ticked off for *-áo/-ó* represent only suggestions. The restricted number of the TP reactions and the regional/dialectal character of this ending do not allow further generalizations (cf. sections 1.1 and 2.3.2).

As can be seen, various semantic components repeatedly occur in different language tasks and form meaning cores for each suffix. Nonetheless, the suffixes are not very different from one another. To show this more clearly, I cite Lieber's (2004) bipartite structure for the English verb derivatives in *-ize* and *-ify* in (6).

(6) *-ize, -ify* [Lieber 2004: 82]
[+dynamic ([$_{\text{volitional-i}}$], [$_{j}$])]; [+dynamic ([$_{i}$], [+dynamic, +IEPS ([$_{j}$], [+Loc])])])], <base>]

In Table 19 the cluster [+dynamic, +IEPS, +Loc] shows up most often across the different suffixes. This cluster corresponds to the subevent (7), extracted from the structure in (6).

(7) [+dynamic, +IEPS ([ ], [+Loc])]

The crucial semantic core [+dynamic, +IEPS ([ ], [+Loc])] in (7) shows that on the level of denotational meaning the suffixes are similar. The pattern [+dynamic] in Table 19 can be regarded as an extension of this core connected with various manipulations of the bipartite structure in (6) – cf. Lieber (2004: 86-88). It should be noticed, however, that [+dynamic] is

not a preferred option for the suffix *-íno* which resists manipulations of its causative structure (see section 1.1 and n. 32). The suffix *-óno* has a strong [+Loc] component, i.e. it standardly combines with [+material] themes (see sections 2.1.1.3 and 2.2.1).

The feature [+habitual] for *-áo/-ó* in Table 19 is too broad a feature to be integrated in Lieber's system, since its classifying power and hence its contribution to the identification of referents is restricted (see section 1.2.1).

The feature [+accumulation] for *-iázo* in Table 19 is represented in Lieber's system through the function [+CI] ('composed of individuals') which accounts for separable similar internal units (see Lieber 2004: 136-139).

The cluster [+dynamic, +similative] in Table 19 corresponds to the first subevent of (6) whereby the referent of the base shows up in the first slot (see Lieber 2004: 87-88.

Until this point of comparison, Lieber's system properly accommodates the denotational content of the Greek suffixes. However, there is a major issue. The [–dynamic] and [+dynamic] patterns of *-évo* in Table 19 are the strongest argument against a single, perhaps bipartite, structure like this in (6) because contradictory outermost features are not licensed in Lieber's system.

Let us now turn to the socio-expressive features of Table 19. As already pointed out in section 2.3.2, the feature {+intensive} is a relational feature which emerged out of the comparison of the suffix *-ízo* with the ending *-áo/-ó*. In section 2.1.1.3 it was argued that *-ízo* is able to foreground abstract actions through its {+intensive} feature, cf. the creation !*adhikízo* 'do injustice' (*adhikía* 'injustice'). It is most likely that the other Greek suffixes relate to this feature as well. In Charitonidis (in preparation) {+intensive} is subsumed under the super-category {+measure} which refers to a conceptual category of measurement/continuation/progress, e.g. size, intenseness, strength, etc. of a higher (cf. {+intensive}) or lower (cf. {+diminutive}) degree.

{–evaluation} for *-iázo* in Table 19 is a powerful selectional feature. The entities which can occupy the empty slots in structure (6) are nominal [+material, dynamic] agents (the first argument of the first partial structure) or adjectival [–dynamic, +scalar] goals (the [+Loc] argument). However, {–evaluation} cuts across these categorial and structural preferences: it prefers {–evaluation} bases such as the [+material, dynamic] entity *rébelos* 'loafer' in *rebeliázo* 'loaf' or the [–dynamic, –scalar] entity *paráksenos* 'odd' in *parakseniázo* 'grow odd'.

As already pointed out in section 1.1, the marking {+low class/provincial} for the ending *-áo/-ó* in Table 19 is connected to complex dialectal preferences and to casual/oral speech. It should not surprise us if this ending – and not *-ízo* – were to often show up with bases which refer to objects or actions of everyday practice in an informal style of speech, cf. *stubáo/-ó* 'pestle' (*stúbos* 'pestle') or *serghianáo/-ó* 'take so./go for a walk' (*serghiáni* 'walk').[71]

In addition, I would like to underscore some selectional patterns as regards the socio-expressive level of meaning already mentioned in previous parts of this study. *-ízo* is a similative suffix and because of this it prefers entities referring to a social role, such as *mitéra*

'mother' (section 2.1.1.3). *-évo* is often used with nominal bases denoting a specific social role, esp. a profession or an office (section 1.1). *-iázo* conflicts with socio-expressively neutral bases since it is negatively marked (section 2.1.1.3).

To conclude, Lieber's structure in (6) together with her ontological distinctions for the main lexical categories offers an adequate framework for accounting for the *denotational* cores of the Greek verb suffixes. Only on closer examination do some dissonant details emerge (cf. the *-évo* issue above). In the case of the selectional properties of the suffixes and hence in the case of productivity, Lieber's theory is massively confronted with its own weakness regarding the socio-expressive level of meaning.

The results of this study suggest (i) a sign-based treatment of affixes, (ii) a vertical preference structure in the semantic structure of the head suffixes which takes into account the semantic make-up of the bases, and (iii) the integration of socio-expressive meaning into verb structures, cf. the features {+intensive}, {–evaluation} and {+low class/provincial} in Table 19.

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Appendix A: The test protocol[72]

TASK 1 (cf. section 2.1)
The Greek verb suffixes are *-ízo* (*afr-ízo*), *-évo* (*psar-évo*), *-éno* (*therm-éno*), *-óno* (*klidh-óno*), *-(i)ázo* (*trom-ázo*) and *-íno* (*efkol-íno*). In the following some base words are given. You have to form **possible** words by using these suffixes. You may use more than one suffix for each base word. Please give a possible meaning for the verb(s) you have formed.

Base words: *mitéra, leftá, adhikía, proinó, trógho, éxo*

TASK 2 (cf. section 2.3)
In the following some verb doublets are given. Do they have the same meaning or is there a difference between them? If yes, please specify the difference.

progízo/progáo, serghianízo/serghianáo, asximízo/asximéno, nostimízo/nostimévo, kitrinízo/kitriniázo, tagízo/tagiázo, anthízo/anthó, manízo/maniázo, luludhízo/luludhiázo, ksafnízo/ksafniázo, garghalízo/garghaláo-garghaló, tsiglízo/tsigláo-tsigló, murmurízo/murmuráo-murmuró, stubízo/stubáo, kutsulízo/kutsuláo, zulízo/zuláo-zuló, delalízo/delaló, skorpízo/skorpáo-skorpó, lighízo/ligháo-lighó.

TASK 3 (cf. section 2.2)
Each of the following verb groups has the endings *-ízo, -évo, -éno, -óno, -(i)ázo,* and *-íno*. These verbs do not exist. Please rate the verbs with 1 (best/highly acceptable verb) to 6 (worst/unacceptable verb). You may use the same grade/number more than once.

potíri - noun > *potirízo, potirévo, potiréno, potiróno, potiriázo, potiríno*
xlorós - adjective > *xlorízo, xlorévo, xloréno, xloróno, xloriázo, xloríno*
káto - adverb > *katízo, katévo, katéno, katóno, katiázo, katíno*

TASK 4 (cf. section 2.4)
In the following some verbs in *-ízo, -évo, -éno, -óno, -(i)ázo,* and *-íno* are given. What is the (near) antonym for each verb? If you cannot find a verb you may use a phrase.

buxtízo, xaramízo, sinetízo, tufekízo | *lathévo, taksidhévo, aghriévo, proedhrévo*
kutséno, kuféno, vuvéno, vathéno | *lighdhóno, plighóno, thalasóno, areóno*
aghiázo, veloniázo, komatiázo, bibikiázo | *eksusiázo, ipoxondhriázo* | *labríno, leptíno*

Appendix B: Creations and interpretations (see section 2.1)

In the following, I give the created verbs together with their interpretations from all TPs. The number of the created verbs stands immediately to the right of the verb. '→' indicates a comment only for the last examined verb. For the meaning of the assumed features see Table 8 in section 2.1.2.

1 *mitéra* 'mother' [+material, dynamic] SUBSTANCE/THING/ESSENCE

!miteréno (2): become a mother [+dynamic, +IEPS, +Loc] (1/2), behave like one's mother [+dynamic, +similative] (1/2)
!mitréno (1): suckle a child [+dynamic, +specialized] (1/1)
→ The absence of the vowel -e- between -t- and -r- produces a specialized meaning (see also below).
!miterévo (9): be a mother [–dynamic] (1/9), behave like a mother [+dynamic, +similative] (1/9), acquire maternal properties [+dynamic, +IEPS, +Loc] (1/9), acquire the role of a mother [+dynamic, +IEPS, +Loc] (1/9), gradually become a mother [+dynamic, +IEPS, +Loc] (1/9), approach the behaviour of a mother [+dynamic, +IEPS, +Loc] (1/9), I'm going to be a mother [+dynamic, +IEPS, +Loc] (1/9), nurture (~nurture/suckle period) [+dynamic, +specialized] (1/9), offer motherly nurture [+dynamic, +specialized] (1/9)
→ The reading 'acquire the role of the entity of the base' is prominent (5/9). There is an exceptional stative [–dynamic] reading in the paraphrase 'be a mother.' Notice that [–dynamic] interpretations in the interviews together with [+dynamic] ones contradict Lieber's (2004) theoretical assumptions that affixes cannot be mapped onto contradictory features (see also sections 4 and 6 in this Appendix; cf. section 2.4.1, etc.).
!mitrévo (2): behave like so.'s mother [+dynamic, +similative, +RS] (1/2), beget children / be a mother [–dynamic] (1/2)
!miteriázo (4): behave annoyingly like a mother [+dynamic, +similative, –evaluation] (1/4), imitate the behaviour of a mother [+dynamic, +similative] (1/4), be a mother's boy / complain [+dynamic, +similative, +RS, –evaluation] (1/4), behave like a mother [+dynamic, +similative] (1/4)
!mitriázo (2): behave maternally [+dynamic, +similative] (1/2), behave like a foster-mother [+dynamic, +similative, +RS] (1/2)
→ It seems that *-iázo* adds a deprecatory meaning component (social meaning). Again, the absence of the vowel -e- between -t- and -r- produces a lexicalized meaning. The verb !*mitriázo* was initially given by many test persons, but after my request for an explanation it was connected with the noun *mitriá* 'foster mother' and not with *mitéra*.
!miterízo (13): behave like a mother [+dynamic, +similative] (13/13)
→ The similative interpretations of !*miterízo* were actually the same in all created derivatives. This fact suggests the great productivity of the suffix in this field. The same fact is already pointed out in Charitonidis (2005: 149-151).
!mitrízo (1): nurture [+dynamic, +M] (1/1)
The absence of the vowel -e- between -t- and -r- produces a metaphorical meaning.
!miteróno (2): make so. into a mother [+dynamic, +IEPS, +Loc] (1/2), behave like a mother [+dynamic, +similative] (1/2)

General comments: There is a strong preference of *-évo* and *-ízo* to [+material, dynamic] [SUBSTANCES/THINGS/ESSENCES. *-évo* has a prominent inchoative ([+dynamic, +IEPS, +Loc] interpretation. *-izo* is a [+similative] suffix.

2 *leftá* 'money' [+material] SUBSTANCE/THING/ESSENCE

!leftázo (1): make money [+dynamic] (1/1)
!lefténo (6): acquire money [+dynamic] (1/6), earn money [+dynamic] (1/6), acquire a lot of money [+dynamic, +accumulation[73]] (1/6), acquire money/become jumped-up [+dynamic, +IEPS, +Loc, +accumulation, –evaluation] (1/6), rise to wealth [+dynamic, +IEPS, +Loc, +accumulation] (1/6), become rich [+dynamic, +IEPS, +Loc, +accumulation] (1/6)
→ There are two poles of interpretations: normal and extreme acquisition of money. The latter may be a semantic contribution of the base.
!leftévo (3): earn money [+dynamic] (2/3), earn/save money [+dynamic] (1/3)
!leftiázo (2): acquire money [+dynamic] (?rise to wealth) (1/2), rise to wealth, earn money [+dynamic, +IEPS, +Loc, +accumulation] (1/2)
→ The cumulative effect of *-iázo* is attested in all parts of the interview. The question is whether the semantic contribution of the base is more relevant here (cf. !*lefténo* above).
!leftíno (1): attenuate [+dynamic, +IEPS, +Loc, +phonological] (1/1)
→ This is an apparent phonological association with the verb *leptíno* meaning 'attenuate.'
!leftízo (3): acquire money [+dynamic] (1/3), rise to wealth/make money [+dynamic, +IEPS, +Loc] (1/3), become rich/earn money [+dynamic, +IEPS, +Loc] (1/3)
→ Cf. the comments for !*lefténo* above.
!leftóno (12): give so. money [+dynamic, +Loc] (6/12), give so. money as bribes/backhanders [+dynamic, +Loc, –evaluation] (4/12), earn money/line my pockets [+dynamic, +Loc, +accumulation] (1/12), take money secretly (slide something into my pocket) [+dynamic, +Loc, –evaluation] (1/12)
→ The verb !*leftóno* was predominantly interpreted as a transitive one with a human object. This was to be expected since the base *leftá* does not bear the feature [+dynamic] and the standard scene of money transfer must be completed with a [+material, dynamic] object (and, trivially, with a [+material, dynamic] subject).

General comments: *-óno* imposes a [+dynamic, +Loc] skeleton without the feature [+IEPS],[74] as opposed to the majority of the other suffixes denoting either a simple activity ([+dynamic]) or being inchoatives ([+dynamic, +IEPS, +Loc]).

3 *adhikía* 'injustice' [–material, dynamic] SUBSTANCE/THING/ESSENCE

!adhikázo (1): judge so. wrongly/unjustly [+dynamic] (1/1)
!adhikéno (4): be unjust, wrong (*adhikó*) [+dynamic] (2/4), become more unjust [+dynamic, +IEPS, +Loc, +direction] (1/4), commit injustice against so. [+dynamic] (1/4)
!adhikévo (6): be unjust, wrong (*adhikó*) [+dynamic] (4/6), be unjust, wrong to so. [+dynamic] (*adhikó kápion*) (1/6), become unjust [+dynamic, +IEPS, +Loc] (1/6)
!adhikíno (2): be unjust, wrong (*adhikó*) [+dynamic] (1/2), become unjust (*ghínome ádhikos*) [+dynamic, +IEPS, +Loc] (1/2)
!adhikízo (17): be unjust/wrong (*adhikó*) [+dynamic] (9/17), be unjust/wrong against so. (*adhikó kápion*) [+dynamic] (4/17), behave unjustly [+dynamic] (1/17), behave like an unjust individual [+dynamic, +similative] (1/17), seem to be unjust [+dynamic, +similative] (1/17), cause injustice [+dynamic] (1/17)
→ The majority of the test persons (13/17) gave the verb *adhikó* as equivalent to !*adhikízo*. This fact suggests the skeleton similarity of both forms and also the fact that *-ízo* has a strong preference for [–material, dynamic] SUBSTANCES/THINGS/ESSENCES producing [+dynamic] SITUATIONS.[75]
!adhikóno (3): be unjust/wrong to so. [+dynamic] (1/3), be unjust [+dynamic] (1/3), try so. unjustly/wrongly [+dynamic, +specialized] (1/3)

!adhikióno (1): commit injustice (*káno ádhiko*) [+dynamic] (1/1)
→ !*adhikióno* (1) is treated together with !*adhikóno* (3).

General comments: Derivatives in *-iázo* were not created because they were blocked at the level of socio-expressive meaning (see sections 1.1 and 2.1.1.3). The meaning patterns in all produced derivatives are extremely similar. There is an almost unexceptional association of the meanings of the derivatives to the meanings of the simple verb *adhikó*. In MG, *adhikó* is always used transitively. Consequently, even though the interpretation 'be unjust/wrong' (*adhikó*) lacks an explicit object, we have to equate it with "be unjust/wrong against so. (*adhikó kápion*)," that is, the interpretation with an accusative animate object. The fact that half (17) of the created derivatives end in *-ízo* is surprising, together with the fact that the *-ízo* creations exhibit similar meanings with the meanings of the rest of the derivatives. Phonological factors may explain this preference since the last vowel of the base stem is *-i* and the first vowel of the suffix *-ízo* is also *i-*[76] (but note that *-iázo* also begins with *i-*). See section 2.1.1.3 for an exclusively semantic account of !*adhikízo*.

4 ***proinó*** **'breakfast'** [+material] SUBSTANCE/THING/ESSENCE
proinó **'morning'** [–material] SUBSTANCE/THING/ESSENCE

As already pointed out, N *proinó* is ambiguous (cf. the title of this section). The respective interpretations below are separated by '|||.'

!proinévo (13): take breakfast [+dynamic] (5/13), make breakfast [+dynamic] (2/13), go somewhere to eat breakfast / eat breakfast [+dynamic, +IEPS, +Loc] (1/13) ||| wake up earlier in the morning [+dynamic, +IEPS, +Loc, DIR] (1/13), wake up in the morning (*ksipnáo proí*) [+dynamic, +IEPS, +Loc] (1/13), remain awake till morning (*méno ksípnios méxri to proí*) [–dynamic, +Loc, +direction] (1/13), be in the morning time (1/13) [–dynamic, +Loc], dawn (in 3rd singular !*proinévi* 'it dawns') [+dynamic, +IEPS, +Loc] (1/13)
→ Overall, they were produced [+dynamic] SITUATIONS with only two exceptions (see the paraphrases 'remain awake till morning' and 'be in the morning time'). The majority of the test persons (8/13) interpreted the base as 'breakfast', and their 'morning' interpretations were inconsistent. It seems that *-évo* produces more homogeneous interpretations with a [+material] base than with a [–material] one (and this may be a counterexample to the general patterns emerged in section 3 of this Appendix) where the [–material] base *adhikía* produced homogeneous interpretations – but see the concomitant feature [+dynamic] of *adhikía*.
!proiniázo (9): eat breakfast [+dynamic] (2/9), make breakfast [+dynamic] (1/9), take or make breakfast [+dynamic] (1/9) ||| morning comes [+dynamic, +IEPS, +Loc, DIR] (1/9), morning caught me [+dynamic, +IEPS, +Loc] (1/9), approach morning [+dynamic, +IEPS, +Loc, DIR] (1/9), wake up in the morning [+dynamic, +IEPS, +Loc] (1/9), loll in bed in the morning [–dynamic, +Loc] (1/9) |||
→ Overall, [+dynamic] SITUATIONS were produced with only one exception (see 'loll in bed in the morning'). With the 'morning' ([–material]) base, the inchoative interpretations were prominent. *-iázo* seems to produce more homogeneous interpretations with a [+material] base compared to a [–material] one (cf. !*proinévo* above).
!proinízo (5): eat breakfast [+dynamic] (1/5), take breakfast [+dynamic] (1/5) ||| be reminiscent of morning [–dynamic, +similative] (1/5), wake up in the morning [+dynamic, +IEPS, +Loc] (1/5), like to refer to mornings [+dynamic, +direction] (1/5)
→ Overall, [+dynamic] SITUATIONS were produced with only one exception (see the [–dynamic, +similative] interpretation 'be reminiscent of morning']). As in the cases of *-évo* and *-iázo, -ízo* seems to produce more homogeneous interpretations with a [+material] base compared to a [–material] one.

!proinóno (1): serve breakfast [+dynamic] (1/1)
General comments: There are no creations in *-éno*. This is obvious since this suffix would produce a phonologically strange ending *-néno* (nonce form) with repetition of the phoneme -n-. The ambiguity of the base (see above) deters me from making the right generalizations. Even so, it is apparent that *-évo, -iázo,* and *-ízo* produce more homogeneous interpretations with a [+material] base compared to a [–material] one.

5 *trógho* 'eat' [+dynamic] SITUATION

!trogházo (1): feed so. [+dynamic, +Loc] (1/1) – see also !*troghiázo* below.
→ Normally, the simple verb *trógho* does not take a human as object. The test person has created a causative derivative with a human object as goal.
!troghéno (1): eat (*tróo*) [+dynamic] (1/1)
→ No change of meaning
!troghévo (6): eat (*tróo*) [+dynamic] (5/6), eat [in low/provincial register] [+dynamic, +register] (1/6)
→ No change of meaning except for one derivative connected to the same meaning in a different register (see the second interpretation).
!troghiázo (3): eat (1/3) [+dynamic], eat a lot of things [+dynamic, +accumulation] (1/3), fret, put oneself in a fatigue [+dynamic, –evaluation, +M] (1/3)
→ It is interesting that the three creations mirror three important functions of the suffix *-iázo:* eventive ([+dynamic]), cumulative, and negative psychological (cf. the analysis in other interview sections/parts).
!troghízo (7): eat [+dynamic] (1/7), eat something [+dynamic] (1/7), eat a small amount [+dynamic, +diminutive] (1/7), eat as "eat a meal" [+dynamic] (1/7), feed so. by force [+dynamic, +IEPS, +Loc, +force] (1/7), become chubby [+dynamic, +IEPS, +Loc, +specialized] (1/7), fret [+dynamic, –evaluation, +M] (1/7)
→ There is a wide spectrum of interpretations, ranging from a literal 'eat' to metaphorical ones such as 'become chubby', 'fret', the most interesting being 'eat a small amount' with a diminutive effect (cf. the general comments below).
!troghóno (4): eat [+dynamic] (2/4), have a row with so. [+dynamic, –evaluation, +M] (2/4)
→ The conflict reading 'have a row with so.' is similar to the conflict readings of !*troghiázo* ('fret', 'put oneself in a fatigue') and !*troghízo* ('fret') above. There is an apparent association with the idiom *tróghome* or *tróghome me ton eaftó mu* meaning 'fret', 'put oneself in a fatigue.'

General comments: I do not think that there can be any deverbal verbs in MG.[77] The cases *klapsurízo* 'bleat' and *fegízo* 'peep' (intransitively for a light source), reported in Sakelariádhis (1997: 86) are not deverbal but denominal verbs (see DCMG). The diminutive verb *vrexulízo* 'drizzle' reported in Thomadháki (1988: 79)[78] seems to have an exceptional suffix, i.e. *-ulízo* and not *-ízo* – notice that only one test person gave a diminutive interpretation for *-ízo,* cf. !*troghízo* above. On top of this, the fact that 8 out of 28 TPs could not give a derivative suggests the difficulty of forming deverbal verbs in MG. The attested creations may be explained by the fact that *trógho* is a [+dynamic] verb and the verb suffixes have an affined [+dynamic] skeleton. For all that, many factors involved in verb derivation in MG appear here as well, e.g. creation of events (see the creations equated to *trógho*), register (see !*troghévo*), accumulation (see !*troghiázo*), negative evaluation/conflict (see !*troghiázo,* !*troghízo,* and !*troghóno* and the qualifications made there related to the interference of the verb idiom *tróghome*). See section 2.1.1.2 for more details.

6 *éxo* 'have' [–dynamic] SITUATION

!exévo (6): have (*éxo*) [–dynamic] (2/6), have something in my disposal [–dynamic] (1/6), want all things to be mine [+dynamic, +accumulation] (1/6), tend to want all things to be mine [+dynamic, +direction, +accumulation] (1/6), obtain/possess [+dynamic]/[–dynamic] (1/6)
→ In three cases, *-évo* produces a volitional [+dynamic] reading that is not present in the simple [–dynamic] verb *éxo*. There is a clear cumulative effect in the two of six cases (see the third and fourth paraphrase).
!exiázo (4): tend to possess something [+dynamic, +direction] (1/4), demonstrate (negatively) my riches [+dynamic, +accumulation, –evaluation] (1/4), be a materialist / want many things [+dynamic, +accumulation, –evaluation] (1/4), do something with a crisscross [+dynamic, +M, +phonological] (1/4)
→ In all four cases *-iázo* produces a volitional [+dynamic] reading that is not present in the simple verb *éxo*. On top of this, there is a clear evaluative/negative and cumulative effect in two of four cases (see the second and third paraphrase).
!exízo (2): have the one, have the other/demonstrate [+dynamic, +intensive] (1/2), I try to have something [+dynamic, +direction] (1/2)
→ In both cases, *-évo* produces a volitional [+dynamic] reading that is not present in the simple verb *éxo.*
!exóno (1): plunge (*xóno*) [+dynamic, +M, +phonological]
→ There is a clear phonological association of !*exóno* to the verb *xóno* 'plunge'. Again, a volitional [+dynamic] reading is produced that is not present in the simple verb *éxo*.

General comments: The suffix *-éno* was not given at all. The [–dynamic] verb *éxo* is more resistant to suffixation than the [+dynamic] verb *trógho:* 16 out of 28 test persons could not create a verb derivative. Whenever a verb is produced, it resulted in a clear [+dynamic] reading. The evaluative/negative and cumulative effect of *-iázo* is already known. What is new is the cumulative effect of the suffix *-évo* (though marginal here).

Notes

[1] In section 1.3 the parameters defining a "forced" or "created" verb are given. Forced/created verbs were either formed by the TPs themselves or presented to the TPs as such for judgment tasks (see sections 2.1 and 2.2, respectively).
[2] The derivational suffixes are actually *-íz-, -én-, -év-, -ón-, -(i)áz-,* and *-ín-* without the inflectional end vowel *-o* for the first person singular – the standard citation form for Greek verbs. In the following, I give the suffixes together with the inflectional ending.
[3] The number of the interviews was regarded by the author as sufficient since essential denotational and socio-expressive cores explicitly emerged with this number.
[4] See the test protocol in Appendix A.
[5] Young humanities students usually have considerable interest in language issues. Additionally, the age from 18 to 25 years is usually connected with a natural propensity towards the use of neologisms and novel creations.
[6] The suffix *-íno* was not examined by Efthymiou (2009). Her analysis for the suffix *-áro* and for the confix *-pió* is not relevant for this study. The former has a strong preference for nominal bases of non-Greek origin, the latter has an unclear status.
[7] The glosses in parentheses were taken from Gottfurcht (2008: 12). All semantic category labels used by Efthymiou (2009) can be found in Plag (1999), Lieber (2004), and Gottfurcht (2008).
[8] As an anonymous referee noted, *-ízo* productively adapts verbal bases of Turkish origin both in Standard Modern Greek and in several of its dialects (see also Melissaropoulou 2010 and Ralli 2009).
[9] Efthymiou (2009) mentions some different views on the relationship between *-ázo, -iázo,* and *-ízo*.
[10] In Charitonidis (2011) it is argued that Efthymiou's (2002) SIMILATIVES are actually STATIVES.
[11] Only the suffix *-áro* having a foreign origin (cf. *pilotáro* 'to pilot') shows a similar function in a few neologisms. See Ralli (2005) and Veloudis (2009) for more information about this suffix.
[12] For qualifications to this claim, see section 2.1.1.1.
[13] Efthymiou (2009) does not examine this suffix.
[14] There are three verbs derived in the antique period from nouns: *meghethíno* 'blow up', 'magnify' (*méghethos* 'magnitude'), *mikíno* 'extend' (*míkos* 'extent', 'length') and *plithíno* 'increase' (*plíthos* 'large number of…'). Nonetheless, these are also RESULTATIVES.
[15] For why this claim cannot be accepted, see section 3.
[16] Iordanídou (ibid) acknowledges that this tendency cannot explain the strong presence of the inflectional paradigm in *-ó* in written non-literal texts.
[17] See section 2.3.2 for details.
[18] As regards the privative character of the categories, Lieber (2004: 23) states that "a particular semantic dimension (i.e. feature, A/N) is or is not relevant to a particular set of lexical forms". Lieber gives no principles which call for this optionality. It is not at all clear why a SUBSTANCE/THING/ESSENCE such as *mother* carries the feature [dynamic], whereas others such as *man* do not (see Lieber 2004: 27). This may happen because *mother* is a relational noun whereas *man* is not. However, a connection with thematic roles is not made. Thematic roles run in the background in Lieber's system and are inhered into the referents after the identification of the latter at word level, i.e. after "co-indexation" (see Lieber 2004: 45ff). Consequently, thematic roles cannot be used as determinants of features. This major issue must be examined in future research.
[19] About how Lieber's system works in the case of apparently different bodies, see Lieber's example on the interpretation of the NN root compound *dog bed* (Lieber 2004: 52).
[20] In this study, creations are indicated with '!'.
[21] For further details about the design of the interviews, see the introductory text in each interview task (sections 2.1-2.4).
[22] As mentioned in the Introduction, the verbs were not "possible" in the required sense, but rather impossible and unintuitive. Some TPs were initially unwilling to do the forcing task, regarding it as "unnatural" (see also section 1.3).
[23] *Proinó* also has a [+material] reading (='breakfast'). This was a methodological inattention of the author which fortunately did not have any consequences on the whole study. Surprisingly, the TPs used almost equally both senses with the same suffixes. Though this fact suggests a major phonological influence from the phonological pattern of the base *proinó,* I cannot extract regularities from a nonce case. Nevertheless, the attested patterns suggest further ambiguity experiments.
[24] There are further differentiations inside the [+dynamic] subclass (see section 1.2.1.1), which it would be time-consuming to consider since there are no native deverbal verbs in MG in the domain of suffixation (see also section 2.1.1.2).

[25] It is worth mentioning that the TPs did not produce more than two verbs, although I did not give them any restrictions. And in many cases they were confined only to a single verb! This may be due to the unnatural character of the creations or to the fact that the respective suffixes bear a restricted semantic content. In the latter case, the use of many suffixes would not provide extra semantic distinctions (see Lieber 2004: 169 for a similar argument in the case of suffix recursivity).

[26] In accordance with Efthymiou's (2009) statement that "the number of *-ázo* forms is very small", the elicited creations in *-ázo* were only three: !*leftázo* 'make money', !*adhikázo* 'judge so. wrongly/unjustly' and !*trogházo* "feed so.'. However, I have regarded *-ázo* as a different suffix than *-iázo.* I would like to give two reasons for this decision: (i) I have found many opaque verbs in *-ázo* in RIMG from the old derivation, e.g. *arpázo* 'wrest', 'seize', *dhistázo* 'hesitate', *dhixázo* 'disunite', etc. These verbs attest the productivity of *-ázo* in the past but not nowadays. (ii) In the creations !*leftázo* and !*trogházo* the *negative psychological* and *low class/provincial* features are totally absent. We know from this study that these features are regularly associated with *-iázo* and not with *-ázo* (see the respective patterns in sections 2.1-2.4). Therefore, it seems that, at least on the level of socio-expressive meaning, *-ázo* and *-iázo* are distinct.

[27] As already mentioned in section 1.1, Efthymiou (2009) did not examine *-íno* derivatives.

[28] Notice that in Table 3 my percentages for *-iázo* and *-ázo* derivatives are collapsed into one value. In addition, this table does not include my percentages for *-íno,* i.e. 3 derivatives, 1.86% (see Table 2). This tiny number of *-íno* derivatives conforms to the very small number of the derivatives found in RIMG (186 derivatives; raw data) and has no serious consequences for the comparison of Efthymiou's results with my results.

[29] The label 'Main verbs' (or simply 'M verbs') is first used in Charitonidis (2005). The criteria for the assessment of this category are given in section 2.1.1.3.

[30] This observation is in accordance with Schultink's (1961: 113) definition of productivity: "Productivity as a morphological phenomenon is the possibility which language users have to form an in principle uncountable number of new words unintentionally, by means of a morphological process which is the basis of the form-meaning correspondence of some words they know." (translated from Dutch by Booij (1977: 4); reported in Plag 1999: 13)

[31] Neologisms and hapax legomena are indications of productivity (see Plag 1999). Unfortunately, their computer-assisted extraction from a dictionary database or a large corpus is not yet possible for MG.

[32] The nature of this index of usage is not yet clear at all: what are the proportions of semantics, syntax and phonology in it? I assume that this index rather refers to the syntax-semantics interface having syntax as a crucial component since suffixes are used together with their bases in versatile word units. The "syntactic motivation" of Lieber's (2004, 2007) features used in this study is in line with these assumptions. It should be noted that Charitonidis (2007: 32) defined six lexical conceptual structures (LCSs) for the suffix *-ízo* which strongly suggest a high index of usage for this suffix. Additionally, suffix *-íno* shows up as the worst candidate in the TP creations (see Table 2), a pattern which is likely to be connected to the strict causative structure of this suffix: *-íno* only sporadically yields inchoatives by dropping the first part of its semantic skeleton (cf. (4) in section 1.2.1.1). The unification of syntactical and morphological processes aimed for in theories such as the framework of 'Distributed Morphology' seems to address the same issues (see Embick & Noyer 2006 for a comprehensive description of this model).

[33] By conducting this creation task, I noticed that some TPs used the abbreviated base *mitr-* for *mitéra* to form derivatives which they rejected afterwards after realizing that the base is not *mitriá* 'foster mother' but *mitéra* 'mother.' This is also a strong indication for the dominance of semantic over phonological factors, at least in this interview task.

[34] This hypothesis must be empirically tested, especially by means of predictability tests. The exact examination of phonological issues would go beyond the scope of this study.

[35] In the whole study, the verbs from the "Archive of Literary Words" found in RIMG were not taken into account.

[36] It should be noticed that there is no dictionary of MG with an evidence-based chronological indexing of the entries. The chronological indications in DCMG and DMGL were considered only as supporting cues in my categorization.

[37] As already mentioned in n. 29, the M category was introduced in Charitonidis (2005).

[38] The term 'simple base' is almost equivalent to 'monomorphemic distinct base'. In Charitonidis (2005: 35-37) two groups of selection criteria for simple bases are given.

[39] Notice that the phonological shape of *adhikía* rather suggests the suffix *-iázo* and not *-ízo* (see section 1.1).

[40] See the general comments in section 3 of Appendix B for further remarks. !*adhikízo* may also be a case of morphological analogy since !*adhikízo* and the existing verb *adhikó* share the same aorist paradigm (this kind of morphological fluctuation is very common in MG; see Mackridge 1985). It is probable that this is the right account but notice that the socio-expressively neutral base *adhikía* conflicts with the negatively marked *-iázo*, which would be a more appropriate suffix on a phonological basis. Therefore, the choice of *-ízo* may have been simply the choice of a neutrally marked morpheme which is akin to *-iázo* (see section 1.1).

[41] [+phonological] points to a – mostly highly aberrant – TP interpretation due to the phonological similarity of a creation to an existing verb. For example, !*leftíno* 'attenuate' (*leftá* 'money') is created according to the existing verb *leptíno* 'attenuate' (*leptós* 'thin').
[42] IEPS: Inferable Eventual Position of State (see section 1.2.1.1).
[43] The vast majority of verbs in MG are semantically eventive, which is what [+dynamic] encodes. It would be quite surprising if new verbs formed with suffixes were not predominantly [+dynamic].
[44] The feature {–evaluation} also shows up in the interpretations of the *-óno* creations. However, it should be considered as a function of the base because it occurs only with the bases *trógho* and *leftá: trógho* is associated with a {–evaluation} idiom and, as is usually the case, *leftá* has negative connotations (see Appendix B).
[45] By "neutral" I mean that two different patterns almost exhaust the meanings spectrum, without significant interference from minor features.
[46] That *-ázo* exclusively produced [+dynamic] verbs was to be expected: this inactive suffix appears in many old formations while having an opaque or disassociated base (see n. 26). Accordingly, the creations refer to a restricted [+dynamic] skeleton while ignoring further features.
[47] The results in Table 9 are largely consistent with my intuition as a native Greek speaker. Notice, however, that the fine distinctions made in this section could not be made without the analysis of informants' judgements.
[48] This is one of the main insights in Lieber's (2004, 2007) account on affixal morphology. Notice that there is a certain circularity in these assessments. If different features were assumed, these meaning overlaps may not show up.
[49] For the distinction between an ADV and a P, see n. 52.
[50] The low rating of these forced derivatives is obviously the strongest indication that the verbs "are intuitively not possible/natural". It cannot be a coincidence that though the bases of these verbs exist from ancient or medieval times, they are not coupled with derivatives. One more hint for their unnaturalness is that the respective bases denote entities of the immediate experience and they could easily have served as derivation bases. For example, ADV *káto* 'down' is a possible candidate, e.g. for the suffix *-ízo,* cf. the existing derivative *adikrízo* 'see', 'meet' (ADV *adíkri* 'facing', 'vis-à-vis'). However, the creations with this ADV received a low rating (see Table 12).
[51] I largely agree with Lieber's view since it considers crucial syntactic aspects as regards the identification of referents while dissociating morphological from syntactic operations (see Embick & Noyer 2006 for a different view in the framework of Distributed Morphology).
[52] In the generative tradition, ADVs are usually treated as Ps without a complement (cf. also the treatment of ADVs in Jackendoff 1983, 1990 which correspond to zero-place predicates in the conceptual structure). In MG, it is not possible to use a P as a derivation base. That means that, at least in derivation, there is a difference between ADVs and Ps.
[53] Accordingly, Lieber (2007) advocates the superiority of s-selection in relation to the English derivational suffixes. DiSciullo's (2005) model contains a similar view within the general framework of the Minimalist Program.
[54] When two TPs took the test simultaneously, they preferred to write the responses.
[55] Charitonidis (2005) was mainly a corpus study.
[56] Notice that the 10 verbs in *-áo* also have a form in *-ó* in the first person singular active (the citation form for the Greek verbs). However, this *-ó* form is not preferred in everyday speech. As mentioned in section 1.1, the speakers of Southern Greek dialects – including the majority of Athenian speakers – prefer the *-áo* over the *-ó* form.
[57] For independent reasons, one TP did not give responses for this part of the interview.
[58] The feature {–aesthetic/correct} may refer to words which are not even possible or existent for some TPs, cf. *kitriniázo*. This feature should be regarded as a simple indication of a negative semantic component in the suffixes and only in relation to other evaluations. For example, *kitriniázo* was otherwise evaluated as {–evaluation} and {+derisive}.
[59] The interview was conducted in the capital of Greece among educated persons. I do not take a stance on any possible issue of "political correctness" related to this alternation.
[60] I have omitted very rare feature fusions in the alternation pairs, e.g. the indication 'metaphor' (alternation 7) was also given by TP22 for the first member of the alternation pair *kitrinízo/kitriniázo*.
[61] In the following I give the meaning of the derivatives only once, since they are first mentioned in the manuscript.
[62] I sometimes indicate metaphorical uses together with selectional restrictions in cases where both appear concomitantly (see the combination 5&7 in Table 13).
[63] Notice that in section 2.1.3 it was stated that "*-éno* seems to be the most neutral suffix, its meaning pending between [+dynamic] and [+dynamic, +IEPS, +Loc] readings."
[64] For other kinds of inversions see Table 13.
[65] Alternation between the two forms occurs because of similarity in the aorist stem (see Mackridge 1985).

[66] Notice, however, that the feature {+low class/provincial} was never associated with *anthó* and *delaló,* which only have the *-ó* variant.
[67] The verbs were originally 24 in number. The verbs *buxtízo* 'cloy', *thalasóno* 'muddle' (*thálassa* 'sea'), and *ipoxondhriázo* 'be hypochondriac' (*ipoxóndrios* 'hypochondriac') were not analyzed, because they suggest a metaphorical (*buxtízo, thalasóno*) or composite (*ipo-xondriázo: ipó-* 'under' + *xóndhros* 'cartilage') meaning.
[68] For independent reasons, two TPs did not do this part of the test.
[69] As the author realized after having done the interviews, the most proper verbs for this task were verbs which contain an object (artifact) in their base without any positive or negative use/connotation, cf. *veloniázo* in Table 16. The TPs are forced in this way to construct situations with a minimal concept backup while consolidating the content of the suffixes into prototypical units.
[70] These questions usually emerge in the context of the controversy between advocates and opponents of decomposition (see Lieber 2004: 4-5).
[71] It is probable that in this case speakers aware of both the *-áo* and *-ó* variants would use the former (cf. sections 1.1 and 2.3.2).
[72] The original test protocol was in Greek. The TPs were able to see the instructions and the example words throughout the test. The test verbs and bases were enlisted vertically.
[73] A feature such as [+possession] would serve as a superordinate feature for [+accumulation] permitting the description of ambiguity cases such as 'make (a lot of) money.' On the other hand, the same putative [+possession] feature would involve a great amount of structure and would possibly overlap with [+Loc].
[74] In sections 2.2.2 and 2.4.1 the cluster [+dynamic, +IEPS, +Loc] for *-óno* is evident. In my view, the notion of possession in this section (see the interpretations with 'give' and 'take' for *-óno* above) does not clearly suggest a notion of stages, i.e. the [+IEPS] interpretation.
[75] This last pattern is also a result of the analysis in Charitonidis (2005). It was stated therein that many abstract fields like ARRANGEMENT, NEGATIVE MENTAL UNIT, etc., mainly used in refined speech, figure among the Event *-ízo* derivatives (Charitonidis 2005: 84). "Field" there was used as a mnemonic label for the content of the derivation base inside an alternation class. Ultimately, this cannot be regarded as a strong or exclusive preference of *-ízo* verbs since *-(i)ázo* verbs show it as well, although in a limited way (see section 2.1.1.3).
[76] This assumption was also made in Charitonidis (2005: 103) according to similar patterns.
[77] This is a well-known fact for persons conversant in traditional grammar. Additionally, many of the zero-responses of the TPs were accompanied by remarks such as "this is already a verb – I cannot form a new one". However, not all interviewed persons had difficulties with forcing verbs into other verbs. As mentioned in section 1.3, a central claim in this study is to discover the power of features which underlie linguistic units such as nouns or verbs. That is, the derivational claims remain intact in these tasks.
[78] Adopted by Thomadháki (1988) from Babiniótis (1969: 34f).

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