

## **The Role of Pragmatics in Verbal Derivation: The Case of *apo-*, *ek(s)-*, and *kse-* Verbs in Modern Greek**

### Abstract

This paper deals with the semantic structure of the verbal prefixes *apo-*, *ek(s)-*, and *kse-* in Modern Greek, by considering their interface with pragmatics. 223 verbal creations are examined, elicited by means of language interviews with native Greek speakers. For the sake of comparison, 495 existing verbs are considered. The analysis relies on Lieber's (2004) framework. The interpretations of the creations suggest that the prefixes have a negative socio-expressive (SE/pragmatic) content by default. This content is a function of the base and can be formalized as a set of semantic/pragmatic conditions of a probabilistic nature on specific arguments.

### 1. Introduction

This paper refers to the third part of the self-funded project “The Integration of Socio-expressive Meaning into Verb Structures” (ISEMVS) conducted by the author at the University of Cologne, Germany, from 2009 to 2014 (Charitonidis 2011; 2012a; 2012b; 2013; forthcoming a; forthcoming b; submitted). The goal of this project is the formulation of a semantic theory of verbal derivation (suffixation and prefixation) which refers to both a denotational (DE/grammatical) and a socio-expressive (SE/pragmatic) level of meaning. The project's by-product is a theory of evaluative compounding (Charitonidis forthcoming c).

The present study deals with the semantic structure of the verbal prefixes *apo-*, *ek(s)-*, and *kse-* in Modern Greek (MG) by considering their interface with pragmatics. The object of investigation are 495 existing verbs in *apo-*, *ek(s)-*, and *kse-*, taken from the online version of *Dictionary of Common Modern Greek (DCMG)*, and 223 verbal creations in *apo-*, *ek(s)-*, and *kse-*, elicited by means of language interviews with 31 native Greek speakers in Athens, Greece, in October 2010, at the Philosophical Faculty of the University of Athens.

The test persons (henceforth TPs) were mostly humanities students aged between 18–25. To assure a homogenous sample, it was explicitly required that the TPs have been born in Athens with parents also born in Athens.

I would like to thank Chryssoula Lascaratou who assisted me in the organization of the interviews at the Philosophical Faculty of the National and Kapodistrian University of Athens in October 2010. My best regards to the staff and the students of the University of Athens who participated in the creation task. I would also like to thank the participants of the 35th Annual Meeting of the Department of Linguistics at the Aristotle University of Thessaloniki for their valuable comments and suggestions.

The interviews were conceived as a creation task. They concentrated on meaning predictions as regards *lexical* knowledge. This means that no context was given together with the tested material. The TPs were able to both hear and read the introductory text and the base words. Since prefixes and bases were given in written form, the TPs did not confuse them with phonologically similar items. The TP responses were both recorded and written down on paper by the investigator.

This paper heavily relies on the statistical and experimental findings in Charitonidis (2013) (Sections 3–4.3). It additionally presents the necessary implications of these findings in favour of a pragmatic account of verbal prefixation (see Sections 4.4 and 4.5). It should be noted that for the present paper, several revisions, additions, and clarifications to the original text in Charitonidis (2013) were made.

## 2. The properties of the prefixes *apo-*, *ek(s)-*, and *kse-* in diachrony

The prefix *apo-* is phonologically spelled out as [apó] when the accent raises from the base to the prefix and – mainly in old derivation – as [ap] or [af] before a non-aspirated or an aspirated vowel, respectively (DCMG).

In Ancient Greek (AG), *apo-* was used as a deverbial, denominal, and deadjectival prefix to denote a point of departure, distancing, exclusion/isolation, privation, end of change of state, negation, ‘back’ (cf. Engl. *re-* ‘give/take back’, etc.), intensification, and termination – special meaning: ‘from/at outside of sth’ (see Efthymiou 2002, 202–3).

In MG, *apo-* is a deverbial (*apodhinamóno* ‘weaken’ (*dhinamóno* ‘strengthen’)<sup>1</sup> and marginally a deadjectival (*apókedros* ‘decentral’ (*kédro* ‘center’) prefix. According to Efthymiou (2002, 204), the four *apo-* meanings which are productive in contemporary Greek are ‘distancing’ (*apoxorízome* ‘part with/from’ < *V xorízo* ‘separate’ + non-active *-me*), ‘privation’ (*apokefalízo* ‘decapitate’ < N *kefáli* ‘head’ + suffix *-ízo*), ‘end of change of state’ (*apoksenóno* ‘estrangle’ < A *ksénos* ‘different/stranger’ + suffix *-óno*), and ‘reversal’ (*apodhiorghanóno* ‘disorganize’ < *V dhiorghanóno* ‘organize’).

The prefix *ek(s)-* is phonologically spelled out as [ek] and, occasionally, as [eg] before [v, γ, δ, z]. The same prefix is spelled out as [eks] before a vowel and [ék] or [ég] or [éks], when the accent raises from the base to the prefix (DCMG).

In AG, *ek-* was used as a deverbial and deadjectival prefix (cf. some nominalised derivatives, such as *ékghonos* ‘offspring’ (N *ghónos/ghonée* ‘begetting’ etc.) to denote a point of departure, ‘out of’, privation, end of change of state, intensification, and reversal – special meaning: ‘from inside of sth’ (see Efthymiou 2002, 200).

In MG, *ek-* is a deverbial (*ekthronízo* ‘dethrone’ < N *thrónos* ‘throne’ + suffix *-ízo*) and very marginally a deadjectival (*ékedros* ‘eccentric’ < N *kédro* ‘centre’) prefix. According to Efthymiou (2002, 204), the two *ek-* meanings which are productive in contemporary Greek are ‘out of’ (*ekparathiróno* ‘lock sm. out’ < N *paráthiro*

<sup>1</sup> *Dhinamóno* is a denominal verb containing the N *dhinami* ‘strength’ and the suffix *-óno*. In this section, I do not indicate the root and the suffix separately when an *existing* verb shows up in the base.

‘window’ + suffix *-óno*) and ‘end of change of state’ (*eklaikévo* ‘popularize’ < A *laikós* ‘popular’ + suffix *-évo*).

The prefix *kse-* is phonologically spelled out as [kse], or [ksé] when the accent raises from the base to the prefix, and [ks], usually before [a] but also before the rest of the vowels (*DCMG*). It evolved out of the past forms of the AG prefix *ek(s)-*, e.g. from the past form *eks-éfigha* ‘escaped’ of the verb *ek-févgho* ‘escape’ (*févgho* ‘be haunted’, ‘escape’), the MG present *kse-févgho* ‘elude’, ‘escape’ evolved, etc. (see Efthymiou 2002, 200). *kse-* is a deverbal, deadjectival, and marginally a denominal prefix – in the latter case many nominal derivatives with an informal and highly expressive character are attested, e.g. N *kse-krío* ‘not cold’, derived from N *krío* ‘cold’, cf. the sentence *krío kse-krío, tha vghó ékso* ‘I don’t care if it’s cold outside – I will go out’, etc.<sup>2</sup> According to Efthymiou (2002, 201), the four *kse-* meanings which are productive in contemporary Greek are ‘privation’ (*ksefludhízo* ‘hull’, ‘peel’ < N *flúdha* ‘hull’, ‘peel’ + suffix *-ízo*), ‘reversative’ (*ksedíno* ‘undress’ < V *díno* ‘dress’), ‘intensification’ (*ksekuféno* ‘din’ < V *kuféno* ‘deafen’), and ‘cessation/end of change of state’ (*ksemethó* ‘sober up’ < V *methó* ‘inebriate’). As can be seen, though MG *kse-* evolved out of the AG *ek(s)-*, the former is categorially and semantically/expressively much more versatile as opposed to the latter.

### 3. Existing verbs

The DE structures of existing verbs in *apo-*, *ek(s)-*, and *kse-*, to be presented in this section, refer to Lieber’s (2004) framework and serve as reference points for the analysis of created verbs in Section 4.

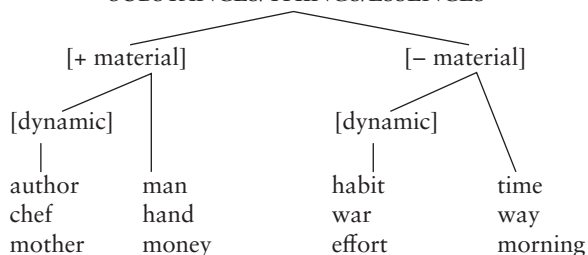
Lieber (2004) introduces an ontological system which decomposes the traditional grammatical categories verb, noun, adjective, and preposition into combinations of features. The noun category is given in [1], bearing the label SUBSTANCES/THINGS/ESSENCES, and the verb and adjective categories are given in [2], bearing the label SITUATIONS. The feature [IEPS] in [2] refers to an ‘Inferable Eventual Position or State’. In simple terms, it denotes the progression towards an end position or an end state.<sup>3</sup>

<sup>2</sup> This informal/expressive use of *kse-* is also evident in deverbal and deadjectival formations.

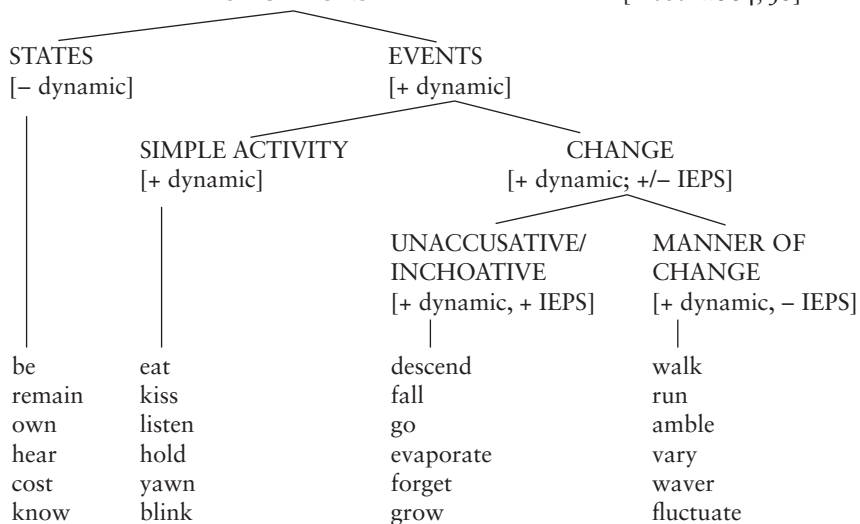
<sup>3</sup> In Lieber (2007) the features [+ scalar] and [– scalar] for adjectives are introduced, cf. the adjectives *wide* and *pregnant*, respectively. The featural system of English prepositions can be found in Lieber (2004, 107).

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[1] SUBSTANCES/THINGS/ESSENCES [Lieber 2004, 27]



[2] SITUATIONS [Lieber 2004, 30]



IEPS: ‘Inferable Eventual Position or State’ (Lieber 2004)

The features in [1] and [2] are treated as argument-taking functions. They combine to yield the semantic skeletons (or skeletons, for short) of various lexical items.

Charitonidis (2013) proposed three main skeletons for the *apo-*, *ek(s)-*, and *kse-* verbs, see [3]–[5]. The example verbs in [3]–[5] are new derivatives, originated approximately in the last two centuries (the ‘Main’ or ‘M’ category). All three prefixes refer to the structure in [3], whereas only *apo-* and *ek(s)-* refer to the structures in [4] and [5]. *i* and *j* co-index the agent and patient arguments, respectively. The base argument is co-indexed with the [Loc] ([Location]) argument in [3] and [5] or with the theme argument in [4].

- [3] Structure A: Bipartite skeleton with [- Loc] for *apo-*, *ek(s)-*, and *kse-*  
*kse-pagh-óno* ‘unfreeze’, ‘defrost’ (*pághos* ‘ice’, ‘frost’)  
 [+ dynamic ([volitional-i ], [j ])]; [+ dynamic ([i ], [+ dynamic, +IEPS ([j ], [- Loc ([k ])])),  
*kse-* [+ material ([k ])]  
pághos

cf. *ap-agistr-óno* ‘unhook’ (*agístri* ‘hook’), etc.

cf. *ek-xomat-óno* ‘clear earth away’ (*xóma* ‘earth’), etc.

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- [4] Structure B: Bipartite skeleton with [+ Loc] for apo- and ek(s)- (theme oriented)  
 ek-loghik-évo ‘rationalize’ (loghikós ‘rational’)  
 [+ dynamic ([<sub>volitional-i</sub> ], [<sub>i</sub> ]]); [+ dynamic ([<sub>i</sub> ], [+ dynamic, +IEPS ([<sub>i</sub> ], [+ Loc ([<sub>k</sub> ])]))],  
 ek(s)- [- dynamic, + scalar ([<sub>i</sub> ])]  
 loghikós  
 cf. apo-the-óno ‘glorify’ (theós ‘god’), etc.
- [5] Structure C: Bipartite skeleton with [+ Loc] for apo- and ek(s)- (goal oriented)  
 eks-athli-óno ‘reduce sm. to utter poverty’, ‘degrade’ (áthlios ‘miserable’)  
 [+ dynamic ([<sub>volitional-i</sub> ], [<sub>i</sub> ]]); [+ dynamic ([<sub>i</sub> ], [+ dynamic, +IEPS ([<sub>i</sub> ], [+ Loc ([<sub>k</sub> ])]))],  
 ek(s)- [- dynamic, + scalar ([<sub>k</sub> ])]  
 áthlios  
 cf. apo-vlak-óno ‘make stupid’ (vlákas ‘stupid’), etc.

In the case of inchoative (change-of-state) or unaccusative (change-of-place) verbs, the first underlined part of the skeleton in [3] is absent, see [6] and [7], respectively. It should be noted that the structures in [6] and [7] mainly address *kse-* verbs in M.<sup>4</sup>

- [6] *kse-paghóno* ‘defrost’ (pághos ‘ice’, ‘frost’) [inchoative]  
 [+ dynamic, +IEPS ([<sub>i</sub> ], [- Loc ([<sub>i</sub> ])]), [+ material ([<sub>i</sub> ])]  
*kse-* pághos
- [7] *kse-ghlistró* ‘slip out’ (ghlistró ‘creep’, ‘slip’) [unaccusative]  
 [+ dynamic, +IEPS ([<sub>i</sub> ], [- Loc ([<sub>i</sub> ])]), [+ dynamic, -IEPS ([<sub>i</sub> ])]  
*kse-* glistró

Table 1 gives the results of the quantitative analysis of 495 existing verbs, taken from DCMG.<sup>5</sup> ‘N-M’ (‘Non-Main’) refers to the old derivation, and ‘G’ (‘General’) refers to the total of verbs (M + N-M). As can be seen, in M (new derivation) there is a considerable increase of *kse-* verbs and a considerable drop of *apo-* verbs.

apo-	ek(s)-	kse-	Total
M: 14 verbs 9,52%	M: 21 verbs 14,28%	M: 112 verbs 76,19%	147 verbs (M) 100%
N-M: 179 verbs 51,44%	N-M: 96 verbs 27,59%	N-M: 73 verbs 20,98%	348 verbs (N-M) 100%
G: 193 verbs 38,99%	G: 117 verbs 23,64%	G: 185 verbs 37,37%	495 verbs (G) 100%

Table 1: Percentages over subcategory totals (existing verbs)

The base ontology of *apo-*, *ek(s)-*, and *kse-* verbs in M is given in Table 2.

apo-	(14 verbs)	ek(s)-	(21 verbs)	kse-	(112 verbs)
[+ material, dynamic]	0 0,00%	[+ material, dynamic]	0 0%	[+ material, dynamic]	0 0,00%
[- material, dynamic]	3 21,43%	[- material, dynamic]	1 4,76%	[- material, dynamic]	7 6,25%
[+ material]	5 35,71%	[+ material]	7 33,33%	[+ material]	57 50,89%
[- material]	1 7,14%	[- material]	3 14,29%	[- material]	5 4,46%
[+ dynamic]	3 21,43%	[+ dynamic]	0 0,00%	[+ dynamic]	31 27,68%
[- dynamic]	0 0,00%	[- dynamic]	0 0,00%	[- dynamic]	2 1,79%

<sup>4</sup> There are also a few inchoative *apo-* verbs in M addressed by the structure in [6], cf. *apo-vrázo* ‘stop boiling’ (*vrázo* ‘boil’), etc.

<sup>5</sup> The scrutinization criteria can be found in Charitonidis (2013, 91).

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apo-	(14 verbs)		ek(s)-	(21 verbs)		kse-	(112 verbs)	
[+ Loc]	0	0,00%	[+ Loc]	0	0,00%	[+ Loc]	1	0,89%
[- dynamic, +scalar]	0	0,00%	[- dynamic, +scalar]	5	23,81%	[- dynamic, +scalar]	6	5,36%
[- dynamic, -scalar]	2	14,29%	[- dynamic, -scalar]	5	23,81%	[- dynamic, -scalar]	3	2,68%

Table 2: Base ontology and percentages in M (existing verbs)

As can be seen, *apo-* and *kse-* have a robust layer of [+ material] and [+ dynamic] roots, i.e. simple concrete nouns and activity verbs, respectively. *ek(s)-* does not combine with [+ dynamic] roots at all, whereas it combines very well with both [- dynamic, + scalar] and [- dynamic, - scalar] roots, i.e. adjectives. It should be noted that all *ek(s)-* verbs with a [- dynamic] root are causative verbs with a [+ Loc] function, cf. *ekloghikévo* ‘rationalize’ (*loghikós* ‘rational’), *eksathlióno* ‘reduce sm. to utter poverty’ (*áthlios* ‘miserable’), etc. In a nutshell, the base preferences of *ek(s)-* are considerably distinct than the base preferences of the other two prefixes.

4. Created verbs

4.1 Statistical analysis

In the interviews, the TPs were asked to build ‘possible’ verbs by using the prefixes *apo-*, *ek(s)-*, and *kse-*, and a set of six bases, see [8]. They were permitted to use more than one prefix for each base, if necessary. They were also asked to give a short paraphrase for each created verb.

[8]	<b>Bases</b>		<b>Ontology (Lieber 2004)</b>
	mitéra	‘mother’	[+ material, dynamic]
	leftá	‘money’	[+ material]
	adhikía	‘injustice’	[- material, dynamic]
	xrónos	‘time’	[- material]
	filó	‘kiss’	[+ dynamic]
	nomízo	‘think’	[- dynamic]

The percentages over the totals of created verbs are given in Table 3. For the sake of comparison, the percentages of the existing verbs in G in Table 1 are repeated in Table 4.

apo-	ek(s)-	kse-	Total
89 verbs 39,91%	59 verbs 26,46%	75 verbs 33,63%	223 verbs 100%

Table 3: Percentages over the totals of created verbs

apo-	ek(s)-	kse-	Total
193 verbs 38,99%	117 verbs 23,64%	185 verbs 37,37%	495 verbs 100%

Table 4: Percentages over the totals of existing verbs (G category, all verbs)

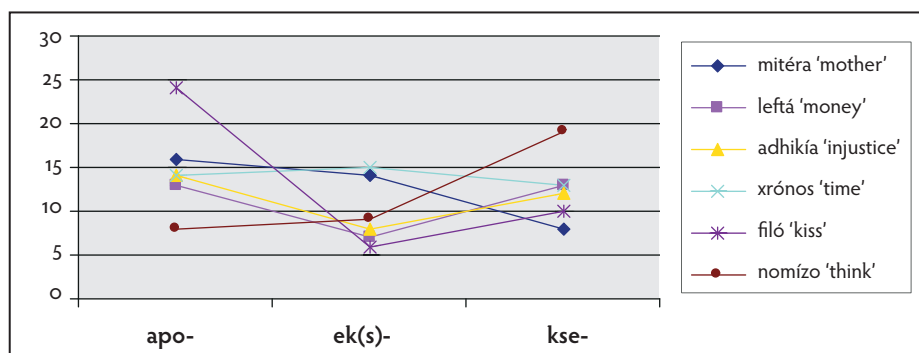
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As can be seen, the percentages of created verbs (Table 3) conform to the percentages of existing verbs (Table 4), whereas *ek(s)*- verbs show the lowest percentage in both the created and existing verbs.

As regards the interaction between prefixes and roots/bases, the general patterns are quite uniform, suggesting that no selection takes place from the prefix toward the root/base or the opposite (see Table 5 and Figure 1).<sup>6</sup>

Bases	Ontology	apo-	%	ek(s)-	%	kse-	%	Total	No V
<i>mitéra</i> 'mother'	[+ material, dynamic]	16	17,98	14	23,73	8	10,67	38	1
<i>leftá</i> 'money'	[+ material]	13	14,61	7	11,86	13	17,33	33	4
<i>adhikía</i> 'injustice'	[- material, dynamic]	14	15,73	8	13,56	12	16	34	5
<i>xrónos</i> 'time'	[- material]	14	15,73	15	25,42	13	17,33	42	0
<i>filó</i> 'kiss'	[+ dynamic]	24	26,97	6	10,17	10	13,33	40	0
<i>nomízo</i> 'think'	[- dynamic]	8	8,99	9	15,25	19	25,33	36	3
Total		89		59		75			

Table 5: Verbal prefixes and roots/bases in interaction (created verbs)



Created using Microsoft Excel 2003

Figure 1: Verbal prefixes and roots/bases in interaction (created verbs)

The question arises as to what is the underlying mechanism which gave rise to (a part of) the creations. This question is addressed in the following two sections.

#### 4.2 The socio-expressive (SE) tier

The interpretations of the creations suggest that the TPs tried to anchor the derivatives in real-world situations by maximizing the representational strength of the prefixes.

Distancing (or [- Loc]) prefixes, such as *apo*-, *ek(s)*-, and *kse*-, are standardly associated with situations that are evaluated negatively (Efthymiou 2001, 2006). With

<sup>6</sup> The high combinability rate of *apo*- with *filó* and *kse*- with *nomízo* can be explained with reference to independent factors (see Charitonidis 2013, 95).

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these prefixes, the SE/pragmatic features {measure}, {stance}, and {interpersonal}, developed for ISEMVVS, should change their value accordingly, i.e. become negative by default.

In Table 6, the meaning of SE features is given. For details on the motivation of these features, the reader is referred to Charitonidis (forthcoming c; submitted).

{+ measure}	Meaning of measurement/continuation/progress, i.e. size, intensiveness, strength etc., of a higher (e.g. {+ intensive}, etc.) or lower (e.g. {+ diminutive}, etc.) degree
{- measure}	Invariable SE content
{+ stance}	Positive stance towards a situation or entity
{- stance}	Negative stance towards a situation or entity
{+ interpersonal}	Estimations and stances explicitly involving the domain of interpersonal relations (reliable social interaction)
{- interpersonal}	Estimations and stances that are to a certain degree orthogonal to the domain of interpersonal relations (non-reliable social interaction)

Table 6: The meaning of SE features (Charitonidis 2012a, 2012b, etc.)

The SE composition of the native verb-forming suffixes in MG is given in [9]. All suffixes are {+ m}, because they standardly refer to a notion of progress or continuation. As can be seen, only *-(i)ázo* has a negative {- s} content (Charitonidis 2012a; 2012b; Efthymiou 2013a; 2013b).

- [9]    {+ m}{s}{i}            default SE matrix for *-ízo, -óno, -évo, -éno, -íno*  
       {+ m}{- s}{i}        default SE matrix for *-(i)ázo*

The default SE matrix of the prefixes *apo-*, *ek(s)-*, and *kse-* is defined as {- m} (discontinuation), {- s} (negative stance), and {- i} (drawback in interpersonal relations), as already suggested at the beginning of this section (see [10]).

- [10]   {- m}{- s}{- i}        default SE matrix for *apo-, ek(s)-, kse-*

The SE meaning of the bases used in the creation task is given in [11]. For all lexemes, a *standard* SE composition is defined. It should be noted that SE features are pragmatic features, i.e. in certain cases they can be cancelled by the context.<sup>7</sup>

- |      |                |                             |
|------|----------------|-----------------------------|
| [11] | Bases          | SE meaning                  |
|      | <i>mitéra</i>  | ‘mother’    {m}{+ s}{+ i}   |
|      | <i>leftá</i>   | ‘money’    {+ m}{+ s}{+ i}  |
|      | <i>adhikía</i> | ‘injustice’ {+ m}{- s}{- i} |
|      | <i>xrónos</i>  | ‘time’      {+ m}{s}{i}     |
|      | <i>filó</i>    | ‘kiss’      {+ m}{+ s}{+ i} |
|      | <i>nomízo</i>  | ‘think’    {- m}{s}{i}      |

In [11], *mitéra* ‘mother’ is {m}, i.e. underspecified for ‘measure’, {+ s} because it

<sup>7</sup> In [11], *mitéra* is defined as {m}, and *adhikía* is defined as {-i}, contrary to the analysis in Charitonidis (2013). This change has no effect on the results in Charitonidis (2013).

relates to a positive social role, and {+ i} because it involves a reliable social interaction. *leftá* ‘money’ is {+ m} because it refers to an entity with a biased (ameliorative) SE content, {+ s} because it is associated with positive stance, and {+ i} because it standardly refers to reliable social interactions. *adhikía* ‘injustice’ is {+ m} because it expresses the absence of an ethical norm, {– s} because it refers to an event or action that is evaluated negatively, and {– i} because it calls for an unreliable social interaction. *xrónos* ‘time’ is {+ m} because it naturally relates to a notion of measurement, and {s}, {i} because it is not marked for ‘stance’ or ‘interpersonal’, respectively, in an obvious way. *filó* ‘kiss’ is {+ m} because it is a dynamic verb, {+ s} because it calls for a positive stance toward someone or something, and {+ i} because it standardly refers to a reliable social interaction. *nomízo* ‘think’ is {– m} because it is not processual/dynamic, {s} because it refers to a situation that may be evaluated positively or negatively, and {i} because it may refer to a positive or negative social interaction.

#### 4.3 PREF ALL and OUT<sub>1</sub> ALL discharging

A guiding principle during the analysis of creations was that prefixal operations occur after suffixal operations. In particular, in the first output (OUT<sub>1</sub>) takes place a semantic composition between the nominal base and the suffix, and in the second output a *discharging* of the prefixal content onto a non-base argument (for details, see Section 4.4).<sup>8</sup>

Since no compositional patterns showed up in the elicited creations, the analysis concentrated on figuring out specific patterns in which the prefixes showed up with their default {– m}{– s}{– i} content (PREF ALL), or patterns in which this default content was not present at all, i.e. the SE composition of the bases defined the output alone (OUT<sub>1</sub> ALL).

A created verb with PREF ALL and a created verb with OUT<sub>1</sub> ALL are given in [12a] and [12b], respectively.

- [12] a. PREF ALL {– m}{– s}{– i}  
 !apoleftízo (leftá ‘money’) ‘take all the money from someone’ (TP<sub>30</sub>)  
 b. OUT<sub>1</sub> ALL {+ m}{s}{i}  
 !ekxronó (xrónos ‘time’) ‘do something in time (= within the time limit)’ (TP<sub>1</sub>)

In [12a], !*apoleftízo* ‘take all the money from someone’ discharges all prefixal features as negative features on a verbal object. In particular, the creation is defined as {– m} because it refers to the discontinuation of someone’s current state, {– s} because it suggests a negative stance toward someone’, and {– i} because it refers to an unreliable social interaction.

In [12b], !*ekxronó* ‘do something in time (= within the time limit)’ ignores the

<sup>8</sup> This pattern was detected in Charitonidis (2012a; 2012b), and the second pattern was suggested by the TP interpretations in Charitonidis (2013). The non-compositional character of prefixal operations is also mentioned in Dimela (2011).

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default prefixal content entirely. The features {+ m}{s}{i} in the base noun *xrónos* ‘time’ survive in the output without change. In particular, *!ekxronó* is {+ m} because a time arrangement is imposed onto something, and {s}{i} because this time arrangement may be positive or negative for someone or something, according to the context.

The examination of all creations with PREF ALL make clear that, for the most part, positive {+ s}{+ i} clusters in the base consolidate the default SE content of the prefixes, i.e. they standardly define {– m}{– s}{– i} in the second output (cf. the {+ s}{+ i} base/root *leftá* in *!apoleftízo* in [12a], etc.).

The patterns in Table 7 refer to *apo-*, *ek(s)-*, and *kse-* creations with a suffixed base or an existing verb in the base. These creations conform to the patterns of existing verbs in M (new derivation).<sup>9</sup> Under the labels PREF ALL and OUT<sub>1</sub> ALL, the exact discharging positions of the SE features are indicated. [j]/A refers to the patient/theme argument of the causative Structure A (see [3]), and ‘[+ d, +I]i/A’ refers to the first argument of the inchoative/unaccusative (non-underlined) part of the same structure. [i]/B refers to the agent argument of the causative Structure B (see [4]), and [+ Loc]/B refers to the goal argument of the same structure. In [13] representative examples for the patterns in Table 7 are given.

	<i>mitéra</i> {m}{+ s}{+ i}	<i>leftá</i> {+ m}{+ s}{+ i}	<i>adhikía</i> {+ m}{– s}{i}	<i>xrónos</i> {+ m}{s}{i}	<i>filó</i> {+ m}{+ s}{+ i}	<i>nomízo</i> {– m}{s}{i}
<b>apo-</b>	PREF ALL [+ d, +I]i/A (7) [j]/A (2)	PREF ALL [+ d, +I]i/A (7) [j]/A (4) [j]/A~[i]/B (1)	PREF ALL [+ d, +I]i/A (1) OUT <sub>1</sub> ALL [+ Loc]/B (3)		PREF ALL [+ d, +I]i/A (1) [j]/A (3)	PREF ALL [+ d, +I]i/A (6) [j]/A (1)
	(out of 15)	(out of 12)	(out of 14)	(out of 13)	(out of 24)	(out of 8)
<b>ek(s)-</b>	PREF ALL [j]/A (1)	PREF ALL [j]/A (1)			PREF ALL [j]/A (1)	OUT <sub>1</sub> ALL [j]/A (3)
	OUT <sub>1</sub> ALL [+ Loc]/B (1)	OUT <sub>1</sub> ALL [+ Loc]/B (2)			OUT <sub>1</sub> ALL [+ Loc]/B (2)	[+ Loc]/B (1)
	(out of 13)	(out of 6)	(out of 8)	(out of 13)	(out of 6)	(out of 9)
<b>kse-</b>	PREF ALL [j]/A (5)	PREF ALL [+ d, +I]i/A (6) [j]/A (5)		OUT <sub>1</sub> ALL [i]/B (1)	PREF ALL [j]/A (8)	OUT <sub>1</sub> ALL ?OBJ/[– dyn] (1) <sup>10</sup>
	(out of 8)	(out of 12)	(out of 12)	(out of 12)	(out of 10)	(out of 19)

Table 7: SE discharging in *apo-*, *ek(s)-*, and *kse-* creations with a suffixed base or an existing verb as base

- [13] a. *!apomiteróno* ‘leave the motherly role’ (TP8)      PREF ALL, [+ d, +I]i/A  
*!apoleftízo* ‘take all the money from someone’ (TP<sub>30</sub>)      PREF ALL, [j]/A  
*!apadhikévo* ‘bring injustice’ (TP<sub>18</sub>)      OUT<sub>1</sub> ALL, [+ Loc]/B  
*!apofiló* ‘turn someone away/out’ (TP<sub>28</sub>)      PREF ALL, [j]/A

<sup>9</sup> In M, there are no *apo-*, *ek(s)-*, and *kse-* verbs with a converted (zero-derived) base, such as *!ekxronó* in [12b], etc.

<sup>10</sup> Possible structure for *!ksenomízo* ‘not know’: [– Loc ([i ], [– dynamic ([i ], [i ]))].

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b.	!ekmitróno	‘alienate’ (TP22)	PREF ALL, [j]/A
	!ekleftévo	‘remove/steal money from someone’ (TP18)	PREF ALL, [j]/A
	!ekfiló	‘kiss with an indecent purpose’ (TP31)	OUT <sub>I</sub> ALL, [+ Loc]/B
	!eknomízo	‘draw a conclusion’ (TP19)	OUT <sub>I</sub> ALL, [j]/A
c.	!ksemitrévo	‘deprive the mother from someone’ (TP27)	PREF ALL, [j]/A
	!kseleftízo	‘run out of money’ (TP20)	PREF ALL, [+ d, +I]/A
	!ksefilízo	‘stop being friends with someone’ (TP10)	PREF ALL, [j]/A
	!ksefiló	‘smother someone with kisses’ (TP20)	OUT <sub>I</sub> ALL, [+ Loc]/B

As can be seen in Table 7, *apo-* and *kse-* are similar PREF ALL prefixes. *kse-*’s preference is PREF ALL on [j]/A. *ek(s)-* is predominantly an OUT<sub>I</sub> ALL prefix. Its preference is OUT<sub>I</sub> ALL on [+ Loc]/B.

Overall, in the *ek(s)-* creations OUT<sub>I</sub> ALL is more strong than PREF ALL. According to the interpretation of the creations, one could define two homophonous *ek(s)-*: (a) a distancing *ek(s)-* promoting the default prefixal content and (b) a transparent or weak *ek(s)-* promoting the base content. By considering the quantitative results for the existing verbs in Section 4.1, I assume that the bifurcation of *ek(s)-* semantics results into its low productivity since more decisions must be made for the use of this prefix in combination with bases.<sup>11</sup>

#### 4.4 The probabilistic character of prefixal operations

The TP interpretations suggest that prefixal operations are not of an absolute but of a probabilistic nature. To show this, I give the interpretation of the creation *!apomiteróno* (*mitéra* ‘mother’) from two different TPs, see [14] and [15], respectively.

[14] !apomiteróno (*mitéra* ‘mother’) ‘leave the motherly role’ (TP8)

First output (OUT<sub>I</sub>)

<i>mitéra</i>	+	-óno	=	!miteróno
{m}		{+ m}		{+ m}
{+ s}		{s}		{+ s}
{+ i}		{i}		{+ i}

Second output

<i>apo-</i>	+	!miteróno	=	!apomiteróno
{- m}		{+ m}		{- m}
{- s}		{+ s}		{- s}
{- i}		{+ i}		{- i} PREF ALL

[15] !apomiteróno (*mitéra* ‘mother’) ‘take someone away from the mother’ (TP20)

First output (OUT<sub>I</sub>)

<i>mitéra</i>	+	-óno	=	!miteróno
{m}		{+ m}		{+ m}
{+ s}		{s}		{+ s}
{+ i}		{i}		{+ i}

<sup>11</sup> The bifurcation of *ek(s)-* semantics is attested in the *existing* M verbs as well, cf. *ekthronízo* ‘dethrone’ ({-m}{-s}{-i} = PREF ALL, [j]/A) vs. *eksathlíono* ‘reduce sb to utter poverty’, ‘degrade’ ({+m}{-s}{-i} = OUT<sub>I</sub> ALL, [j]/C), etc.

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Second output

apo-	+	!miteróno	=	!apomiteróno
{- m}		{+ m}		{- m}
{- s}		{+ s}		{s}
{- i}		{+ i}		{- i} *PREF ALL

As regards the first output (OUT<sub>1</sub>) in [14] and [15], underspecified features are merged with valued features in a compositional manner (for the complete set of operations in verbal suffixation, see Charitonidis 2012a; 2012b etc.). As regards the second output, the interpretation ‘leave the motherly role’ in [14] suggests the discontinuation of an existing state of a non-base argument, i.e. the verbal subject ({- m}), the negative self-evaluation of this subject for his/her current role ({- s}), and the dysfunction of interpersonal relations associated with this role ({- i}). Accordingly, the creation is indexed as PREF ALL: all prefixal features survive in the output.

The interpretation !*apomiteróno* ‘take someone away from the mother’ in [15] suggests the discontinuation of an existing state of a non-base argument, i.e. the verbal object ({- m}), and the dysfunction of interpersonal relations associated with the distancing of the verbal object from his/her mother ({- i}). However, a negative stance toward the verbal object cannot be sufficiently defined (see underspecified {s} in the output). To become more conspicuous, if a person takes a child away from his/her mother, the stance towards this child may be positive or negative. In the first case, the mother may be improper for a good breeding, but in the second case the opposite, etc.

### 4.5 Towards a formalization of socio-expressive (SE) operations in verbal prefixation

The original contribution of the present paper is its focus on the pragmatic operations within which a verbal derivative in *apo-*, *ek(s)-*, or *kse-* may emerge. I would like to give a final example on how this ‘pragmatic generation’ works.

As already mentioned in Section 4.2, the noun *leftá* ‘money’ standardly refers to an entity with a biased (ameliorative) SE content ({+ m}), and associated with positive stance ({+ s}) and reliable social interactions ({+ i}).

The creation !*ek-left-ó* was interpreted by TP8 as ‘get money out of the way’ (i.e. ‘disassociate a state, a relationship, etc. from money’ [author’s note]). In this interpretation there is no direct evaluation of the base argument LEFTA but of the implied patient argument of the causative verb, i.e. the argument indexed with ‘j’ in [16]. In particular, !*ekleftó* expresses the discontinuation of a present state, a relationship, etc. from being attached to money ({- m}), the negative evaluation of this state or relationship ({- s}), and the unreliability or dysfunction of interpersonal relations due to the involvement or money ({- i}). These negative SE conditions can be integrated as semantic/pragmatic conditions of a *probabilistic nature* in the semantic skeleton in [16].

[16] [+ dynamic ([volitional-i ], [j[- m][- s][- i] ])] ; [+ dynamic ([i ], [+ dynamic, +IEPS ([j[- m][- s][- i] ], [- Loc ([k ])])), [+ material ([k ])]]  
 ek- leftá

Accordingly, it is possible to account for the generation of !*ekleftó* by referring to an entity that in specific contexts can be addressed by the {- m}{- s}{- i} features, i.e. in situations in which a present state, a relationship etc., stops from being attached to money ({- m}), is negatively evaluated ({- s}), and relates to a dysfunction of interpersonal relations ({- i}). The generation of existing verbs such as *apotharíno* ‘discourage’ (*tháros* ‘courage’), *ksepitóno* ‘turn someone out of his/her house’ (*spíti* ‘house’) etc., can be explained in a similar way.

In a nutshell, the emergence of an *apo-*, *ek(s)-*, or *kse-* derivative becomes highly probable if an entity or situation is dissociated from another entity or situation that is standardly evaluated positively. According to the patterns in Table 7, this probability is currently higher for *apo-* and *kse-* than for *ek(s)-*.

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