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ARBEITSPAPIER NR. 49 (Neue Folge)

Verb Derivation in Modern Greek inside Alternation Classes

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Mai 2006

ISSN 1615-1496

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ISSN 1615-1496
Druck: Zentrale Hausdruckerei

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Abstract

In this paper I present five alternations of the verb system of Modern Greek, which are recurrently mapped on the syntactic frame NP_i__NP. The actual claim is that *only* the participation in alternations and/or the allocation to an alternation variant can reliably determine the relation between a verb derivative and its base. In the second part, the conceptual structures and semantic/situational fields of a large number of *-ízo* derivatives appearing inside alternation classes are presented. The restricted character of the conceptual and situational preferences inside alternations classes suggests the dominant character of the alternations component.[1]

1.1 Alternations

Firstly, I would like to introduce the verb alternations which I have used for the analysis of the Greek derivatives in *-ízo.* All alternations have double numbering, e.g. *1a/b* or *2a/b* for the first alternation, depending on whether the *b*-variant appears in active or passive, respectively.
In the *causative/auto* alternation, an agent initiates an event (causative variant *a*) and this Event can be conceptualized independent of that agent (auto variant *b*). This alternation bears the numbers *1a/b* or *2a/b.* (1) is an example of the alternation *1a/b* and (2) is an example of the alternation *2a/b.*

(1) a. I zésti **ksínise** to gála.
'The hot weather **has soured** the milk.'
b. To gála **ksínise.**
'The milk **has soured**.'

(2) a. I adipolítefsi **midhenízi** tis prospáthies tis kivérnisis.
'The opposition **annihilates** the efforts of the government.'
b. I prospáthies tis kivérnisis **midhenízode**.
'The efforts of the government **are annihilated**.'

The agent in (1a), i.e. the hot weather, is absent in (1b); the milk may sour without the intervention of a *control* agent (see below), for example, if acidification takes place for a long time. Furthermore, an agent such as the hot weather or the air may have initiated an acidification process, but the presence of that agent in the course or at the end of this process is optional, i.e. the relevant Event is conceptualized as autonomous.
Similarly, the agent in (2a), i.e. *adipolítefsi* 'opposition,' is absent in (2b): an effort can be annihilated without the intervention of a *control* agent, e.g. when these efforts take place in a

time of financial crisis. Or the agent can have only initiated an annihilation process, as would be the case in a detraction campaign. Again, the presence of the agent in the course or at the end of this process is optional and the process is conceptualized as autonomous.

The second alternation is called *causative/reflexive.* In this alternation, an agent initiates an Event (causative variant), in which the goal of his *control* action is himself or a part of himself (reflexive variant). This alternation bears the numbers *3a/b* or *4a/b.* The pair in (3) is an example of the alternation *4a/b.*

(3) a. **Xtenízi** ta maliá tis.
'She **combs** her hair.'
b. **Xtenizete.**
'**She combs herself.**'

Alternation *3* cannot be easily validated but it is theoretically possible. An active reflexive variant (i.e. alternation *3b*) may be attested in the following sentence:

(4) I paréa **skórpise**.
'The gang **broke up**.' (lit. '**scattered itself**')

The problem is that there is no corresponding causative variant (i.e. alternation *3a*) which could contain both an agent NP and a goal NP with the same reference.

(5) *****I paréa **skórpise ton eaftó tis**.
'The gang **scattered itself**.'

Only in a conceptual structure in the identificational field[2] can a reflexive configuration be declared, cf. the Lexical Conceptual Structure ('LCS') in (6) for both the reflexive and the causative variants.

(6) CAUSE([$_{\text{Thing}}$PARÉA], [GO$_{\text{Ident}}$([$_{\text{Thing}}$PARÉA], [$_{\text{Path}}$TO$_{\text{Ident}}$[$_{\text{Property}}$SKÓRPIOS]])]),

where [SKÓRPIOS] represents the content of the back-formed A *skórpios* 'scattered.'[3]

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[1] Parts of this text can be found in Charitonidis (2005), here with some changes and elaborations. Some minor parts can be found in Charitonidis (2006).

[2] See Jackendoff (1983, 1990).

[3] See Jackendoff (1983, 1990, 1992) for details about conceptual structure as a component in a tripartite model of grammar. In Saeed (1997: 249-259) there is a comprehensive presentation of Jackendoff's model.

The third alternation is the *causative/reciprocal.* In this alternation, an agent initiates an Event (causative variant), in which the goal of the actions of the participants is directed at each other (reciprocal variant). This alternation bears the numbers *5a/b* or *6a/b.* The pair in (7) is an example of the alternation *6a/b.*

(7) a. O Jórgos **adíkrise** ti Méri (or) I Méri **adíkrise** ton Jórgo.
'Jórgos **met** Mary' (or) 'Mary **met** Jórgos.'
b. O Jórgos ke i Méri **adikrístikan**.
'Jórgos and Mary **met each other**.'

Only a few derivatives in *-ízo* show this alternation. The most of them are old derivations (cf. *xeretízo* 'greet,' 'welcome') or opaque words (cf. *vrízo* 'insult;' see also Charitonidis 2005).
Like alternation *3* above, alternation *5* cannot be easily validated. However, it is theoretically possible. An active-reciprocal variant (i.e. alternation variant *5b*) is probably substantiated in (8), which contains the informal verb *agapízo* 'reconcile,' derived from verb *agapó* 'love' via the aorist paradigm.

(8) I adízili **agápisan**.
'The rivals **reconciled themselves**.'

Only in a conceptual structure in an extended *situational* field[4] can a reflexive configuration be declared, cf. the LCS in (9).

(9) CAUSE([$_{\text{Thing}}$ADÍZILI], [GO([$_{\text{Action}}$AGÁPI], [$_{\text{Path}}$TO[$_{\text{Thing}}$ADÍZILI])]),

where [AGÁPI] represents the content of the related[5] base N *agápi* 'love' of the verb *agapízo.*

The fourth alternation is called *causative/control.*. In this alternation, an agent initiates an Event (causative variant *a*) and has control over it, esp. defining its end (control variant *b*). This alternation bears the numbers *7a/b* or *8a/b.*
(10) is an example of the alternation 8a/b.

(10) a. O májiras **alatízi** to fajitó.
'The cook **salts** the meal.'

[4] See Charitonidis (2005: 45ff).

[5] A derivation base such as *agápi* is *related*, if it is associated with an indirect derivative such as *agapízo,* which is a formation via the aorist-paradigm of *agapó* 'love,' i.e. *agapáo* (present) > *agápisa* (aorist) > *agapízo* (present).

b. To fajitó **alatízete** apó ton májira.
'The meal **is being salted** by the cook.'

In (10a) and (10b) the agent *májiras* 'cook' and the moving entity or *theme aláti* 'salt,' the base of the derivative *alatízo* 'salt,' are indispensable entities in the whole action. The agent as a volitional entity has control over the whole Event determining the course and end of it.
(11) is an example of the more scarce alternation *7a/b.*

(11) a. I néa mamá **megalóni** to agoráki.
'The young mother **brings up** the small boy'. (lit. '**makes big**')
b. To agoráki **megalóni** apó ti néa mamá tu.
'The young boy **is brought up** by his young mother.[6] (lit. '**becomes big**')

In (11), the agent *i néa mamá* 'the young mother' initiates a breeding Event (causative variant *7a*) and has control over that Event, esp. by defining the end of this Event (control variant *7b*).[7]
We see thus that in opposition to the alternations *1a/b* and *2a/b,* the agent is present in the second alternation member and the whole alternation is symmetric with respect to the explicit or implicit presence of the main arguments in the conceptual structure.
The last alternation is the passive participle (alternation *9*). This alternation has only one member. It denotes an *established end state* in that it refers to an accomplished Event with a temporal State-extension after its accomplishment. An example of this alternation is (12).

(12) To psári íne **tiganisméno**.
'The fish is **fried**.'

In most cases, *-ízo* verbs which have no passive participle do not undergo the alternations *1-8,* cf. the verbs *fterujízo* 'flap,' 'flatter,' *travlízo* 'stutter,' 'stammer' and others in Charitonidis 2005

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[6] The sense 'grow big' of the verb *megalóno* (see alternation variant *7b*) must be differentiated from the related auto sense 'get old' of the same verb form, in accordance with the alternation model presented here.

[7] I cite further evidence for the alternation variant *7b* in (i) and (ii).

(i) Ο χαρακτήρας του ήρωά του **ισορροπεί** από τον μετρημένο Liam Neeson.
'The charakter of his protagonist **balances** by steady Liam Neeson'
(http://www.e-shop.gr/show_dvd.phtml?id=DVD.01800)

(ii) Η Πατησίων **κλείνει** από μαθητές και εργάτες που κατεβαίνουν σε συμπαράσταση.
'Patission street **is barricaded by** students and workers (lit. '**closes**'), who run together for support.'
(http://www.dea.org.gr/efhmerida/86/keimeno4.htm)

which do not alternate. The passive participle is thus an indication for the existence of these alternations.

1.2 Multi-mapping

The multiple mapping or *'multi-mapping'* of semantics onto morphology in the domain of verb derivation in Modern Greek becomes apparent from the fact that parallel suffixes compete with *-ízo* for the expression of the same verb meaning, cf. *plut-éno/plut-ízo* 'become rich,' *kitrin-ízo/kitrin-iázo* 'become yellow,' a.o. In this section, I want to further discuss the multiple mapping of verb semantics onto the active and passive morphology, already mentioned in the previous section.

Voice switches in the Greek verb do not always correspond to different semantics, in that they can sometimes point to the same Event. Cf. the following sentences:

(13) Ta skupídhia **skórpisan.** (Auto alternation *1b* with active morphology)
'The rubbish **was scattered**.'

(14) Ta skupídhia **skorpístikan.** (Auto alternation *2b* with passive morphology)
'The rubbish **was scattered**.'

(15) Ta skupídhia **skorpístikan** apó ti gáta**.** (Control alternation *8b* with passive morphology)
'The rubbish **was scattered** by the cat.'

As we can see, the active form *skórpisan* in (13) and the passive form *skorpístikan* in (14) point to the same Event. On the other hand, the same passive form *skorpístikan* can express an auto or a control Event, cf. (14) and (15), respectively.

The control category is regularly expressed by passive morphology. The fact that sentences like (16) with an active verb are not evaluated as ungrammatical by all informants is a further indication that the use of voice sometimes fails to obey regular morphosemantic mappings.

(16) ?Ta skupídhia **skórpisan** apó ti gáta. (Control alternation *7b* with active morphology)
'The rubbish **was scattered** by the cat.'

In the alternation classes analysis in Charitonidis (2005), I tried to accommodate all cases of voice multi-mapping. All these cases suggest that active and passive morphology of the Greek verb often overlap indifferently.

1.3 Overview

Table 1 gives an overview of the alternations discussed in sections 1.1 and 1.2. The three bordered cells (alternations *3b, 5b* and *7b*) point to the exceptional status of the contained alternation variants.[8]

Table 1

ALTERNATIONS - Overview

(Suffix *-ízo* in 3rd person singular present)

1a	**1b**	**2a**	**2b**
Causative Active	**Auto Active**	**Causative Active**	**Auto Passive**
-ízi	*-ízi*	*-ízi*	*-ízete*
3a	**3b**	**4a**	**4b**
Causative Active	**Reflexive Active**	**Causative Active**	**Reflexive Passive**
-ízi	*-ízi*	*-ízi*	*-ízete*
5a	**5b**	**6a**	**6b**
Causative Active	**Reciprocal Active**	**Causative Active**	**Reciprocal Passive**
-ízi	*-ízi*	*-ízi*	*-ízete*
7a	**7b**	**8a**	**8b**
Causative Active	**Control Active**	**Causative Active**	**Control Passive**
-ízi	*-ízi*	*-ízi*	*-ízete*

9

Passive Participle (established end state —endings in nominative singular)

-ménos (masc.), *-méni* (fem.), *-méno* (neut.)

1.4 Conceptual structures - Semantic fields

For the determination of the semantic relation between a verb derivative and its base, I propose a simple version of Jackendoff's (1990) *conceptual structures,* paying special attention to the basic thematic Event. According to the proposed model, conceptual categories and functions are under-decomposed, whereas the content of the derivation base, appearing as *semantic/situational field,* compensates for this under-decomposition.[9]

[8] For a full overview of the verb endings see appendix B.

[9] See Charitonidis (2005: 43ff) for details. Jackendoff's semantic fields (see Jackendoff 1983, 1990) bear no special indication. The semantic/situational fields introduced by the author are indicated with capital letters.

For the determination of the semantic fields I followed these tactics:

The starting point for their differentiation is the content of the base. For example, from the two main semantic elements which compose the meaning of the verb *stubízo* 'pestle,' i.e. INSTRUMENT & CONTACT BY IMPACT, the *dominant* semantic field is INSTRUMENT, since it immediately represents the content of the base *stúbos* 'pestle.' The field CONTACT BY IMPACT is an *accompanying* semantic feature/field, since it figures only after the association of the base with a conceptual structure, in this case a conceptual structure which contains a theme moving to a reference object, cf. the following sentence with its conceptual structure (LCS1; see section 3):

(17) O María **stubízi** ta amígdhala.
'María **pestles** the almonds.'
CAUSE([MARÍA], [GO([STÚBOS], [$_{Path}$TO[AMÍGDALA]])])

The assessment that INSTRUMENT is the dominant semantic field of *stubízo* may have another motivation: instruments are closely related to sensomotorics and the conceptualization of space, esp. through a body-part motion.

The clear-cut distinction between a dominant semantic field and an accompanying semantic field/feature is not always obvious, cf. the derivative *ramfízo* 'peck (at),' 'pick' whose base *rámfos* 'bill,' 'beak' denotes a BODY PART and an INSTRUMENT or *xastukízo* 'slap sb in the face,' whose base *xastúki* 'slap/smack in the face' only implies (but does not denote) a BODY PART or an INSTRUMENT. Cases like these are decided again according to the content of the base: the dominant semantic fields are BODY PART in *ramfízo* and CONTACT BY IMPACT WITH BODY PART in *xastukízo* since their bases *rámfos* and *xastúki* denote a Thing or Action, respectively.

A more difficult case is represented by verbs like *afionízo* 'give sb opium,' whose base *afióni* can be thought of to refer to the fields FOOD/DRINK, SUBSTANCE, or PSYCHOLOGICAL. Since *afióni* 'opium' refers to an object, the FOOD/DRINK or SUBSTANCE option seems more adequate. But in a situational approach the regarding of this field as dominant can only partially account for the semantics of the derivative. In this context, a principled solution cannot be offered. Cases like this are accounted for by means of *complex* semantic fields, e.g. FOOD/DRINK & SUBSTANCE & PSYCHOLOGICAL for *afionízo* (whereby the field PSYCHOLOGICAL may be inferred from the other fields).

Let us try to summarize the process of accessing the semantic fields of *-ízo* derivatives:

1. The content of the base of the derivative sets the frame of a semantic field.

2. There is a dominant field related to the denotatum of the derivation base and an accompanying field or feature related to the whole conceptual structure.

3. If the content of the base fails to represent the Event denoted by the derivative, then the content of the whole situation can be represented by a complex of semantic fields/features.

The author is conscious of the empirical character of such an approach, since situations are complex entities. The attempt to fix prominent elements in the domain of a morphological process like verb derivation necessarily takes two basic assumptions into account:

a. The derivation base points to the relevant or prominent element of the situation denoted by the derivative (see above), and

b. the assertion of particular semantic fields/features can only be made holistically.

Case *b* entails that the establishment of a semantic element as field or feature is dependent on its regular appearance in a variety of situations, cf. the semantic field/feature CONFLICT which often appears with verbs of CONTACT BY IMPACT WITH BODY PART (e.g. *xastukízo*), VERBAL (e.g. *sixtirízo1* 'insult scurrilously'), etc., and the semantic field/feature CONTACT BY IMPACT which often appears with INSTRUMENT verbs (e.g. *stubízo*).[10]

For these reasons, a principled fixing of a semantic field/feature as main or secondary can miss the point of the complexity of situations. Therefore, the process of accessing the semantic fields of *-ízo* derivatives (under 1-3 above) imposes no hierarchy between them. The use of the terms *semantic field* and *semantic feature* is in principle only connected to the gradual extraction of semantic fields using this intuitive method. Let me now present how these three components work.

2 Split verbs with transparent structures: the verb *kapnízo* 'smoke'

The meanings of verbs in Modern Greek can be adequately distinguished on the basis of alternations. The conceptual structures, which represent the semantic relationship between a derivative and its base, appear then as artifacts of the situations defined by the alternation classes.

Table 2 (see next page) shows how the main senses of the verb *kapnízo* can be clearly differentiated only on the basis of alternations, even though *kapnízo1* and *kapnízo3* have the same conceptual structure (in that the denotatum of the base occupies the theme-position), and they refer to the same semantic field, i.e. the field EMISSION/ENDOGENOUS PRODUCT.

The semantic field of *kapnízo2* suggests that the relationship between this verb and its base *kapnós* 'smoke' is not like the relationship between *kapnízo1* and *kapnízo3* and their respective bases. In *kapnízo2* the base refers to the action-related field (or feature) COVERING, which is

[10] Until this point of argumentation, some non-alternating control verbs were taken into account, e.g. *ramfízo* and *sixtirízo1*. In general, all non-alternating verbs in *-ízo* have contributed to the assessment of the relevant semantic fields appearing in this section (see Charitonidis 2005: 147-158 for a complete analysis of the non-alternating verbs in *-ízo*).

absent in *kapnízo1* and *kapnízo3*. Therefore, we should define *kapnós2* as the base of *kapnízo2* and depart from a prototype entity represented by *kapnós* for all three senses of *kapnízo*.[11]

Table 2

Verbs	**Senses**	**Alternation Classes**	**Semantic/Situational Fields**	**Conceptual Structures**
kapnízo1	'smoke', 'give off smoke'	1*a/b_*9 (No alternations)	EMISSION/ ENDOGENOUS PRODUCT	LCS4 (see (19a))
kapnízo2	'smoke', 'cure'	2a/b_8a/b_9	COVERING	LCS1 (see (18))
kapnízo3	'smoke', 'puff'	8a/b_9	EMISSION/ ENDOGENOUS PRODUCT	LCS4 (see (19b))

1*a/b_*9: *Causative Active/Auto Active_*Passive Participle

2a/b_8a/b_9: Causative Active/Auto Passive_Causative Active/Control Passive_Passive Participle

8a/b_9: Causative Active/Control Passive_Passive Participle

LCS: Lexical Conceptual Structure

On the other hand, one has to define a different conceptual structure for *kapnízo2,* which is in accord with the Event denoted by this verb, i.e. the LCS in (18).

(18) $_{Event}$CAUSE([$_{Thing}$], [GO([$_{Thing}$KAPNÓS], [$_{Path}$TO[$_{Thing}$]])] (LCS1)

In this LCS, the Path-function TO appears, in constrast to the LCSs of *kapnízo1* and *kapnízo3,* in which the Path-function FROM appears (see (19a) and (19b), respectively).

(19) a. $_{Event}$GO([$_{Thing}$KAPNÓS], [$_{Path}$FROM[$_{Thing}$]]) (LCS4)

b. $_{Event}$CAUSE([$_{Thing}$], [GO([$_{Thing}$KAPNÓS], [$_{Path}$FROM[$_{Thing}$]])]) (LCS4)

Accordingly, we see that the clustering of alternations in the three verb senses of *kapnízo* make two things possible, i.e. (a) the exact differentiation of the semantic fields and consequently the exact specification of the derivation base, and (b) the exact relationship between the derivatives and their bases, as this is manifest in the respective conceptual structures (cf. the absence of an agent in the alternation class 1*a/b_*9 of *kapnízo1* in table 2).

The same alternations clustering allows for a specification of detailed conceptual structures for the three senses. The LCSs of the sentences in (20) and (21) are given here as examples of detailed conceptual structures.

[11] Cf. Jackendoff 2002:341f.

(20) O Jánis **kapnízi** to psári.
'Jánis **smokes** the fish.'
$_{Event}$CAUSE([$_{Thing}$JÁNIS], [GO([$_{Thing}$KAPNÓS], [$_{Path}$TO[$_{Place}$**IN**[$_{Thing}$PSÁRI]]])])

(21) O Jánis **kápnise** ton tíxo.
'Jánis has smoked **the wall.'** (e.g. by holding an ignited torch near the wall)
$_{Event}$CAUSE([$_{Thing}$JÁNIS], [GO([$_{Thing}$KAPNÓS], [$_{Path}$TO[$_{Place}$**ON**[$_{Thing}$TÍXOS]]])])

As we see in the conceptual structures in (20) and (21), a complex Path constituent, which contains the functions IN or ON in addition to the function TO, would have further differentiated the sense of *kapnízo2*, regardless of the substantially common and linguistically relevant element in the two structures, i.e. the presence of the path function TO, which refers to a spatial end point.

On the other hand, the conceptual structure of *kapnízo1* and *kapnízo3* needs only be differentiated in respect to the fact that in *kapnízo1,* in contrast to *kapnízo3,* an agent intervention and an established end state is out of the question. The relationship between these two derivatives and their bases, however, is in principle the same.

2.1 Further splitting patterns

2.1.2 Split verbs with opaque structures

The following table illustrates how the make-up of an opaque verb[12] like *potízo* can be:

Table 3

Verbs	**Senses**	**Alternation Classes**	**Semantic/Situational Fields**	**Conceptual Structures**
potízo1	'water,' 'irrigate'	8a/b_9	WATER	opaque (see Table 4)
potízo2	'water sth/sb'	4a/b_8a/b_9	LIQUID/WATER	opaque (see Table 4)
potízo3	'ooze'	1a/b_2a/b_9	LIQUID/MOISTURE	opaque (see Table 4)

8a/b_9: Causative Active/Control Passive_Passive Participle

4a/b_8a/b_9: Causative Active/Reflexive Passive_Causative Active/Control Passive_Passive Participle

1a/b_2a/b_9: Causative Active/Auto Active_Causative Active/Auto Passive_Passive Participle

[12] Diachronically opaque split verbs with a back formation like *skorpízo* fall into the category of the *synchronically related verbs* (see section 3), in other words they are regarded as another kind of split verbs with transparent and/or semitransparent structures (for the latter see section 2.1.4).

Let us see how the three components ACs, SFs and CSs interact. The base of all three verbs in Table 3 is opaque: the original base noun *pótos* 'drinking,' 'drinking-bout,' 'carousal' (LS-online) is an old word which has not survived and no correlative noun can be construed as the base of the verb in Modern Greek (*potó* 'drink,' 'beverage' can be only loosely connected to some of the uses of *potízo2*). What consequences can such an opacity have on the interpretation of the verbs?

First of all, a conceptual structure must be construed on the basis of the meaning of the verbs. The totally incorporated arguments as moving elements (themes) can be inferred: they must be something like 'water' for *potízo1,* 'liquid'/'water' for *potízo2,* and 'liquid'/'moisture' for *potízo3* (cf. the semantic fields in Table 3). After this identification, the correlating conceptual structures can be constructed as in the following table:

Table 4

potízo1	CAUSE([$_{Thing}$], [GO([$_{Thing}$WATER], [$_{Path}$TO[$_{Thing}$]])])	LCS1
potízo2	CAUSE([$_{Thing}$], [GO([$_{Thing}$LIQUID/WATER], [$_{Path}$TO[$_{Thing}$]])])	LCS1[13]
potízo3	CAUSE([$_{Thing}$], [GO([$_{Thing}$LIQUID/MOISTURE], [$_{Path}$TO[$_{Thing}$]])])	LCS1[14]

The motion configuration for all three verbs is, in principle, the same. The totally incorporated argument has the same structural position and expresses the same ontological category in the same *minimal* structure: it is a Thing/theme which moves on a Path trajectory towards another Thing. As we see then, the three verbs are hardly differentiated at the level of thematic relations. (Of course, at the overall conceptual level, a differentiating factor is the optionality of the CAUSE function in *potízo3*. Other factors are mentioned in footnotes 8 and 9).

The next consequence of the opacity of these structures is that the relevant semantic fields cannot be reliably defined as in the case of the synchronically related verbs (see chapter 4). For example, in *kapnízo* the relevant base can be easily integrated in a semantic field and it can be related to three scenes according to the verb morphology/syntax (see above). However, this is not the case with *potízo:* although a certain similarity between the inferred incorporated arguments exists, the exact definition of these arguments must be made on the basis of the *scenes* in which the three verb readings appear. These scenes must be something like 'irrigating' for *potízo1,* 'transfer of liquid/water among humans and/or animals' for *potízo2,* and 'penetration of liquid/moisture into a material' for *potízo3,* as examples (4)-(6) illustrate:

[13] Plus reflexive binding for the reflexive passive variant (alternation *4b*).

[14] Plus Argument Fusion for the causative variants, e.g. for a sentence like *i igrasía pótise ton tíxo* 'the moisture has oozed into/through the wall,' the totally incorporated argument [LIQUID/MOISTURE] functions as a selectional restriction for the NP *i igrasía* (for the rule of Argument Fusion see Jackendoff 1990:53f).

(22) *potízo1*

'**Potízi** ton kípo'

'**He waters** the garden.'

(23) *potízo2*

a. Ton **potízi** uíski.

'**He gives** him (large amounts of) whisky **to drink**.'

b. **Potízi** to álogo.

'**He waters** the horse.'

(24) *potízo3*

I igrasia **pótise** ton tixo.

'Water **oozed through** the wall.'

The Event frame/structure of these scenes offer the alternation classes, i.e. the morphosyntactic make-up of the three verbs (see Table 3). It is the linguistic level at which the three verb readings are explicitly and adequately differentiated.
A similar split verb is *zematízo* 'scald,' 'scorch.'

2.1.3 Split verbs with transparent and opaque structures

Split verbs like *kapnízo,* with transparent structures, and split verbs like *potízo,* with opaque structures, are similar in relation to the interpretation demands which they make: the reader/listener must connect an Event with a basically *homogeneous* incorporated argument in order to grasp the prominent scenes in which these verbs appear, cf. the explicit argument [KAPNÓS] 'smoke' for *kapnízo* and the implicit argument [LIQUID] for *potízo*, respectively.
However, this is not always the case. There are split verbs with transparent and opaque structures, which demand different interpretations, cf. the verb *stixízo* in Table 5.

Table 5

Verbs	**Senses**	**Alternation Classes**	**Semantic/Situational Fields**	**Conceptual Structures**
stixízo1	'cost'	No Alternations	STATIVE	opaque (cf. the structure in (26))
stixízo2	'line sb up'	4a/b_8a/b_9	FORM	LCS2

4a/b_8a/b_9: Causative Active/Reflexive Passive_Causative Active/Control Passive_Passive Participle

In Modern Greek it is not possible to relate the meaning of *stixízo1* with one of the meanings of the base *stíxos*, cf. the meanings 'line,' 'file,' 'row,' 'rank,' etc. Therefore, the verb is characterized as *opaque.* In a sentence like (25), the conceptual structure of this verb is something like (26).

(25) To fórema **stixízi.**

'The dress **is expensive.**'

(26) $_{State}BE_{Ident}([_{Thing}DRESS], [_{Place}AT_{Ident}([_{Property}EXPENSIVE])])$[15]

The same is not true for *stixízo2.* The content of its base *stíxos* can be unequivocally embedded as an incorporated argument in a conceptual structure which denotes an Event, cf. (27).

(27) $_{Event}CAUSE([_{Thing}\ \ ], [GO_{Ident}([_{Thing}\ \ ], [_{Path}TO_{Ident}[_{Thing}STÍXOS]])])$,

where the first argument of GO can be an animate or inanimate Thing (with the relevant binding in the *4b* alternation variant).

This is a case in which readings of verbs are differentiated by means of their positive or negative membership in alternations as well as by means of their totally different conceptual structures: as opposed to *stixízo2,* which participates in three alternations and expresses an Event, *stixízo1* is a verb which shows no alternations and expresses a State. The semantic fields STATIVE of *stixízo2* and FORM of *stixízo1* confirm the different semantic make-up of these verbs.

We see that syntax, morphology and semantics co-operate extremely distinctively so that the same verb *form* is associated with two totally different lexical representations (see Table 5 above).

The verb *xrimatízo* is a slightly different case*,* cf. the following table:

Table 6

Verbs	**Senses**	**Alternation Classes**	**Semantic/Situational Fields**	**Conceptual Structures**
xrimatízo1	'give (money as) bribes/backhanders'	8a/b_*9	EXCHANGE	LCS1
xrimatízo2	'serve as'	No alternations	STATIVE	opaque

8ab_*9: Causative Active/Control Passive_*Passive Participle.

As opposed to *stixízo1* (see (26)), *xrimatízo2* cannot be thought of as a verb with an incorporated argument, cf. the following sentence with its conceptual structure:

(28) **Xrimátise** ipurgós.

'**He served as** a minister.'

$_{State}BE_{Ident}([_{Thing}HE], [_{Place}AT_{Ident}([_{Thing}IPURGÓS])])$,

where Thing [IPURGÓS] is a Type[16]

[15] See Jackendoff 1983:194ff for the definition of the *identificational* semantic field.

[16] See Jackendoff 1983:194.

Thus we see that in addition to the absence of alternations, overt (predicative) syntax reinforces the meaning differentiation of *xrimatízo2,* so that this verb form becomes completely opaque.

2.1.4 Split verbs with transparent and semitransparent structures

In this chapter, the term *semitransparent structure* is used for *-ízo* verbs with an irregular semantic connection to their base. In the case of these verbs, a native speaker of Modern Greek can easily recognize the base of a derivative, although he cannot immediately explain what the exact relation of the derivative to its base is. Linguistically speaking, the content of the base cannot be immediately embedded in a conceptual structure but only after some kind of computation on the content of the base.

With regard to the discussion at hand, there are split verbs which appear with transparent and semitransparent structures. The following table exemplifies the general make-up of such a split verb:

Table 7

Verbs	**Senses**	**Alternation Classes**	**Semantic/Situational Fields**	**Conceptual Structures**
kokinízo1	'redden,' 'make sth red'	1a/b_9	COLOUR	LCS2
kokinízo2	'brown sth' (food)	8a/*b_9	COOKING	ISC (cf. (29) and (30))

1a/b_9: Causative Active/Auto Active_Passive Participle

8a/*b_9: Causative Active/*Control Passive_Passive Participle

Kokinízo1 participates in two alternations showing no gaps. The semantic field of this verb is the super-category of the content of the base, i.e. it is COLOUR for *kókino* 'red.' The conceptual structure can be easily defined in the identificational field by means of the relation of an entity to a Thing(Type), i.e.

(29) CAUSE([$_{Thing}$ ....], [GO$_{Ident}$([$_{Thing}$], [TO$_{Ident}$([$_{Thing}$KÓKINO])])])

Kokinízo2 participates in two alternations showing no Passive Control variant. Its semantic field and conceptual structure must be inferred by means of a rule operating on the base. Such a rule could be:

(30) *Inferred end-state rule*

'Relate the conceptual structure of the base with the end state of a Thing in an Event'

The conceptual structure of the base *kókino,* i.e. [$_{\text{Thing(Type)}}$KÓKINO], must be related to the end state of a Thing like *kréas* 'meat' in an Event like cooking, simultaneously defining the semantic field of the verb, i.e. COOKING. In this case, the conceptual structure of *kokinízo2* is not very different from that of *kokinízo1* (cf. Table 7), provided that a rule like (30) immediately operates on the base in order to produce the right interpretation.

We see again that the two main readings of *kokinízo* are reliably/immediately differentiated only on the basis of alternation classes to which they are connected, since the conceptual structure and the semantic field of *kokinízo2* cannot be immediately defined and must be computed.

Kokinízo is not the only split verb which demands the use of an inference rule operating on the base for one of its readings. Similar verbs are: *jalízo* and *xeretízo*.[17]

By means of such an analysis, even metaphorical uses of verbs can be explained, cf. the metaphorical *xeretízo* 'welcome.' What one needs is a rule like (30)[18] and the correct identification of the alternation classes.

It is clear that the meaning deviation observed in *kokinízo2* does not fall into the domain of *regular* verb derivation. Evidence for this is the fact that one cannot correlate the meaning of this verb with a corresponding meaning of the base in isolation, i.e. *kókino* does not mean 'cooked.' In the same way *jalí* (related base of *jalízo*) does not mean 'burnished/polished thing' and *xérete* (related base of *xeretízo*) does not mean 'welcome.' In the case of the last two verbs, this is only possible in idiom phrases like: *to asími éjine jalí* 'the silver is polished' (literally: 'the silver became glass') or *den mu ípe úte éna xérete* 'he didn't welcome me' (literally: 'he didn't even say hello to me').

Other similar verbs are *gremízo, kerdhízo, lianízo, plutízo, prikízo, rithmízo, ro-kanízo, sixtirízo, skorpízo* (cf. BF *skórpios*), *skupízo, stolízo, thisavrízo, tonízo, vasanízo, zijízo*.[19]

2.1.5 Split verbs with semitransparent structures

The following subclass of split verbs does not show the same interpretation pattern as that in section 6.4. The semitransparent structure doesn't seem to follow a rule like that in (30) and the verb can almost be characterized as opaque, cf. Table 8.

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[17] See appendix A for the overall properties of these verbs.

[18] Such a rule could be, (a) for *xeretízo:*

'relate the conceptual structure of the base, i.e. the address 'hello,' with the behaviour of the agent in an Event,' in other words: 'when X says 'hello' to Y, then X welcomes Y,'

and, (b) for *jalízo:*

'relate the conceptual structure of the base, i.e. the base of the noun *jalí* 'glass,' with properties of a Thing in an Event,' in other words: 'when X makes Y shine like glass, then X polishes/burnishes Y.'

[19] See appendix A for the overall properties of these verbs.

Table 8

Verbs	**Senses**	**Alternation Classes**	**Semantic/Situational Fields**	**Conceptual Structures**
mirízo1	'smell (of),' 'send off/give off a (good/bad) smell'	1*a/b_9	SMELL	ISC (see (31) for the transparent structure)
mirízo2	'smell,' 'sniff'	8a/*b_*9 (No alternations)	SMELL	ISC (see (31) for the transparent structure)

1*a/b_9: *Causative Active/Auto Active_Passive Participle

8a/*b_*9: Causative Active/*Control Passive_*Passive Participle

The verb *mirízo* was originally derived in ancient times from the noun *mýron* 'sweet oil,' 'unguent,' 'perfume' and meant 'rub with ointment or unguent,' 'anoint' (LS-online). In MG, the noun *míro* has the same meaning as its ancient correlative, but the verb *mirízo* mainly has two different ones (see Table 8). Nowadays, the only meanings of *mirízo* that can be transparently associated with *míro* are 'send off/give off a *good* smell' or 'smell,' 'sniff' (a *good* smell) by means of the LCS4 (see section 3) in the EMISSION/ENDOGENOUS PRODUCT field, i.e.

(31) GO([$_{\text{Thing}}$MÍRO], [FROM[$_{\text{Thing}}$]])

for *mirízo1,* and

(32) CAUSE([$_{\text{Thing}}$], [GO([$_{\text{Thing}}$MÍRO], [FROM[$_{\text{Thing}}$])])

for *mirízo2,* where the sense of MÍRO 'good smell' functions as a selectional restriction for a noun argument like *ároma* 'perfume' in the syntax.[20]

It is very difficult to connect the other extended readings of *mirízo* to the related noun: for the meanings 'send off/give off a *bad* smell' of *mirízo1* and 'smell,' 'sniff' (a *bad* smell) of *mirízo2,* we would have to revert the main attributive feature of the related noun. It is clear that these meaning deviations do not fall into the domain of regular *verb derivation* but in the area of a meaning extension at the *word level.* Evidence for this exclusion is the fact that the noun *míro* meaning 'bad smell' can be used only in a humorous way or as an indirect comment and cannot be thought of either as an established word or as a neologism so that it can be regularly related to the above established verb senses.

Other split verbs showing similar behaviour are *athrízo, gremízo, ?podhízo, tra-ganízo*.[21]

[20] See the rule of Argument Fusion in Jackendoff (1990:53f).

[21] See Appendix A for the overall properties of these verbs.

2.2 Interaction of alternations with Path constituents: the verbs *kimatízo* 'wave,' *glikízo* 'taste sweet,' and *glifízo* 'be brackish.'

The participation of the derivatives in alternations or their allocation to an alternation variant defines the content of the Path constituent, e.g. similative verbs can be regarded as Event verbs with a TO- or TOWARD-function or as State verbs with an AT-function in their conceptual structure. This depends on whether they participate in one of the alternations defined in section 1.1, or not.

Let us take the two conceptual options for the similative verb *kimatízo* 'wave,' 'ripple' (base N *kíma* 'wave'). See (33a) and (33b).

(33) a. $_{Event}GO_{Ident}$ ([$_{Thing}$], [$_{Path}$TO/TOWARD$_{Ident}$([$_{Thing}$KÍMA])])

b. $_{State}BE_{Ident}$ ([$_{Thing}$], [$_{Path}AT_{Ident}$ ([$_{Thing}$KÍMA])])

Both structures refer to Jackendoff's identificational field, in which a Thing/Type or a Property can be conceptualized as reference object (s. Jackendoff 1983:194ff).

Since the verb *kimatízo* participates in the Event alternations *1a/b* and *9,* we must define it as an Event verb with a conceptual structure which contains a Path TO or TOWARD constituent (see (33a)). As I mentioned in the introduction, in the auto alternation an agent initiates an Event and this Event can be conceptualized independently of that agent. In other words, we cannot have a State in the auto variant, since we have an Event in the causative variant.

On the other hand, similative verbs such as *glikízo* 'taste sweet' (base A *glikós* 'sweet'), which appear only in the alternation variant *1b,* have a different conceptual structure than verbs like *glifízo* 'be brackish' (base A *glifós* 'brackish'), which cannot be assigned to an alternation variant. Compare, for example, the conceptual structure of *glikízo* in (34) with the conceptual structure of *glifízo* in (35).

(34) $_{Event}GO_{Ident}$ ([$_{Thing}$], [$_{Path}$TO/TOWARD$_{Ident}$ [$_{Property}$GLIKÓS]])

(35) $_{State}BE_{Ident}$ ([$_{Thing}$], [$_{Path}AT_{Ident}$ [$_{Property}$GLIFÓS]])

These different conceptual structures are developed especially because *glikízo* is related to a denotational shift of its base *glikós* (i.e. it does not refer to the actual Property [SWEET], but to a Property, which is similar to [SWEET]), as opposed to *glifízo,* whose base *glifós* has a direct denotation, i.e. it directly refers to the Property [BRACKISH]. In other words, one can regard similative verbs as Event verbs with a GO function in the identificational field.[22]

[22] See Plag (1998).

At the same time, if we assume that *glikízo* participates in the alternation *base + suffix -éno* / *base + suffix -ízo*, i.e. expresses the alternation CAUSE BECOME/BECOME at the semantic level, then we have a further argument for the correctness of the LCS in (34). In this respect, see the sentences in (36) and (37) which together build up an alternation pair in a situation such as COOKING.

(36) I záxari glik**éni** to fajitó.
'Sugar sweetens the meal.'

(37) To fajitó glik**ízi**.
'The meal is sweetish.'

On the other hand, *glifízo* cannot participate in this alternation or in an alternation similar to this. This must be attributed to the fact that an agent cannot appear in the conceptual structure of this verb at all. The same goes for an analytic construction, like the one in (38).

(38) *O Jánis **ékane** to neró **glifó**.
'Jánis **made** the water **brackish**.'

The fact that *glifízo* can neither alternate nor be assigned to an alternation variant like *glikízo,* points to a totally different conceptual structure. One can thus certainly define *glifízo* as a State verb and assume the LCS in (35) for it (repeated below as (39)).

(15) $_{State}BE_{Ident}$ ([$_{Thing}$], [AT_{Ident} ([$_{Property}$GLIFÓS])])[23]

3. The analysis of *-ízo* derivation: Alternation Classes, Conceptual Structures, Semantic Fields

The combination of the alternations defined in the introduction has resulted in 41 alternation classes (15 class groups; about the notion of 'class group' see below) for approx. 400 *-ízo* derivatives examined in Charitonidis (2005). These classes, in my opinion, have some interesting implications for the semantics of the Greek verb and consequently for the status of the verb derivation in Modern Greek. An adequate approach has to be based on *groups* of classes having a typical member inside them, e.g. a group of alternations is constituted by the classes 1a/b_9, 1a/b_*9, 1*a/b_9, and 1*a/?b_9, with the typical member being class 1a/b_9 showing all alternation variants. In the remainder of this paper, when using the term class group,

[23] From now on, I omit the indication Event/State for the whole conceptual structure. Also, note that for typographic convenience no square brackets enclose the whole LCSs in this paper.

I will refer to the typical alternation class and departures from it, a pattern which is associated with a different conceptualization of Events.[24]

In addition, the following morphological subclasses were taken into account in the analysis:

1. The main subclasses *synchronically related verbs* and *synchronically unrelated verbs,* contain derivatives which are regularly or not regularly associated with an independent word (or words) as their formation base, respectively.

2. Further subclasses inside the *synchronically related verbs,* i.e. the subclass *Main verbs* with neologisms, loan translations, and verbs from the modern vernacular language, cf. *torpilízo* 'torpedo,' *magnitízo* 'magnetize,' *fefgatízo* 'transfer sth far away secretely/illegally,' the subclass *Old Derivation* with verbs which come from the ancient, Hellenistic, and medieval Greek, e.g. *alatízo* 'salt,' *frodízo* 'care,' *etc*., the subclass *Verb-to-Verb,* for which the morphosemantic relatedness to a 'base' can be construed through a disregarding of more complex morphological processes, e.g. *akonáo* (present) > *akónisa* (aorist) > *akonízo* 'grind,' 'whet' (present), and the subclass of *-ízo* verbs which have a *back-formed noun or adjective* and can together constitute a related pair, e.g. *kazadízo* 'get rich' > *kazádi* 'gain,' 'profit' 'good.'

To the results: the following clustering of *semantic fields* was attested inside the alternation classes.

(i) Class group 1a/b_9:

COLOUR (e.g. *blavízo* 'become dark blue'), ENDOGENOUS PRODUCT (e.g. *tsiknízo* 'burn the food and make it emit smoke'), FLAVOUR (e.g. *ksinízo1* 'sour'), FORM (e.g. *adhinatízo* 'slim'), PSYCHOLOGICAL (e.g. *laxtarízo* 'give sb a turn'), SIMILATIVE (e.g. *xrisízo* 'make sth shine like gold'), EARNING OF PROPERTY (e.g. *plutízo1* 'make rich')

(ii) Class group 2a/b_9:

PSYCHOLOGICAL (e.g. *fanatízo* 'make fanatic'), LOSS (e.g. *xaramízo* 'waste')

(iii) Class 4a/b_9:

RESPONSIBLE ACTION (e.g. *sinetízo* 'bring sb to reason')

(iv) Class 6a/b_*9:

VISUAL FIELD (e.g. *adikrízo* 'see,' 'meet'), VERBAL (e.g. *xeretízo1* 'say hello,' 'greet')

(v) Class group 8a/b_9:

INSTRUMENT (e.g. *planízo* 'plane'), VERBAL (e.g. *onomatízo* 'mention by name'), NEW PLACE (e.g. *stalízo* 'lead (a flock) to a shaded resting place'), CONFLICT (*ksilízo* 'beat (with a wooden stick)'), CONTACT BY IMPACT (e.g. *stubízo* 'pestle'), JOB (e.g. *telonízo* 'clear through the customs'), ARRANGEMENT (*kanonízo* 'regulate,' 'adjust'), MAINTENANCE (e.g. *frodízo* 'take care of,' 'look after'), PORTION (e.g. *merízo* 'portion out'), VALUE (e.g. *midhenízo2* 'reduce to zero,' 'give no marks at all'), etc.

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[24] See Charitonidis (2005) for a complete view of the analysis summarized in this section.

(vi) Class group 2a/b_8a/b_9:
MATTER CHANGE (e.g. *kapsalízo* 'singe'), COVERING (e.g. *kapnízo2* 'smoke,' 'cure').
(vii) Class group 4a/b_8a/b_9:
(BODY) CARE (e.g. *aromatízo* 'perfume'), INSTRUMENT (e.g. *xtenízo* 'comb'), PROVISION (e.g. *oplízo* 'arm'), SUBSTANCE (e.g. *afionízo* 'give sb opium').
The patterns in (i)-(vii) suggest that in most of the classes (class groups), a group of semantic fields can be recognized as constituting a distinct semantic core. This core, however, does not coincide with *all* semantic fields under each of these classes. Semantic fields like PSYCHOLOGICAL appear in a variety of classes (see Charitonidis 2005). A finer differentiation of these fields on the basis of a larger number of verbs may reveal a more strict class membership, a major task which goes beyond the scope of the present analysis.
The *conceptual structures* which could be identified from the analysis of the *-ízo* derivatives are given in (40). *Mat* stands for 'Material Entity' (s. Jackendoff 1992).

(40) LCS1: CAUSE([$_{Mat}$]$_i$, [GO([$_{Mat,Action,Energy}$-IA-], [$_{Path}$TO[$_{Mat}$]])])

LCS2: CAUSE([$_{Mat}$]$_i$, [GO([$_{Mat}$], [$_{Path}$TO[$_{Mat,Property,Event}$-IA-]])])

LCS3: a. CAUSE([$_{Mat}$]$_i$, [GO([$_{Mat,Action,Property}$-IA-], [$_{Path}$TO[$_{Mat}$]])])

b. CAUSE([$_{Mat}$]$_i$, [GO([$_{Mat}$], [$_{Path}$TO[$_{Mat,Property,Event}$-IA-]])])

LCS4: CAUSE([$_{Mat}$]$_i$, [GO([$_{Mat,Action,Energy}$-IA-], [FROM[$_{Mat}$]])])

LCS5: CAUSE([$_{Mat}$]$_i$, [GO([$_{Mat}$], [$_{Path}$TO[$_{Mat}$]])])
VIA[$_{Mat}$-IA-]
LCS6: CAUSE([$_{Mat}$-IA-]$_i$), [GO([$_{Mat}$], [$_{Path}$TO[$_{Mat}$]])])

The sentences (41)-(47) exemplify these LCSs. As we can see, in LCS1 the incorporated argument appears as theme und in LCS2 the incorporated argument appears as goal. In the ambiguous LCS3, the incorporated argument appears either as theme (LCS3a) or as goal (LCS3b). In LCS4, the incorporated argument appears as theme in relation to a reference object in source position. In LCS5 the incorporated argument appears as argument of the function VIA in a modifying conceptual structure. In LCS6, the incorporated argument occupies the agent position.

(41) LCS1

O májiras **alatízi** to fajitó. (base: N *aláti* 'salt')

'The cook **salts** the meal.'

CAUSE([$_{Thing}$MÁJIRAS], [GO([$_{Thing}$ALÁTI], [$_{Path}$TO[$_{Thing}$FAJITÓ]])])

(42) LCS

I jinéka **katharízi** to pukámiso. (base: A *katharós* A 'clean')

'The woman **cleans** the shirt.'

CAUSE([$_{Thing}$JINÉKA], [GO([$_{Thing}$PUKÁMISO], [$_{Path}$TO[$_{Property}$KATHARÓ]])])

(43) LCS3a

O mixanikós **magnitízi** to ilikó. (base: A *magnitikós* 'magnetic')

'The engineer **magnetizes** the material' (he induces magnetic properties in the material).

CAUSE([$_{Thing}$MIXANIKÓS], [GO([$_{Property}$MAGNITIKÓS], [$_{Path}$TO[$_{Thing}$ILIKÓ]])])

(44) LCS3b

O mixanikós **magnitízi** to ilikó. (base: N *magnítis* 'magnet')

'The engineer **magnetizes** the material' (he converts the material into a magnet).

CAUSE([$_{Thing}$MIXANIKÓS], [GO([$_{Thing}$ILIKÓ], [$_{Path}$TO[$_{Thing}$MAGNÍTIS]])])

(45) LCS4

O Jórgos **kapnízi** éna tsigáro (base: N *kapnós* 'smoke')

'Jórgos **smokes** a cigarette.'

CAUSE([$_{Thing}$JÓRGOS], [GO([$_{Thing}$KAPNÓS], [FROM[$_{Thing}$TSIGÁRO]])])

(46) LCS5

O skopeftís **pistolízi** éna bukáli. (base: N *pistóli* 'pistol')

'The shooter **shoots** a bottle (**with a pistol**).'

CAUSE([$_{Thing}$SKOPEFTÍS], [GO([$_{Thing}$-non specified-], [$_{Path}$TO[$_{Thing}$BUKÁLI]])])

VIA[$_{Thing}$PISTÓLI]

(47) LCS6

O Marcello **delalízi** ta néa stin póli. (base: N *delális* 'town crier')

'Marcello **announces** the news in the town (**as a town crier**).'

CAUSE([$_{Thing}$DELÁLIS]), [GO([$_{Thing}$NÉA], [$_{Path}$TO[$_{Thing}$PÓLI]])])

As in the case of the semantic fields, there is some clustering of conceptual structures associated with specific alternation classes.

(i) Class group 1a/b_9:

LCS2 (COLOUR, FLAVOUR, FORM, PSYCHOLOGICAL, SIMILATIVE)

LCS4 (ENDOGENOUS PRODUCT)

(ii) Class group 2a/b_9:

LCS2 (PSYCHOLOGICAL, LOSS)

(iii) Class 4a/b_9:
LCS2 (RESPONSIBLE ACTION)
(iv) Class group 8a/b_9:
LCS1 (INSTRUMENT, VERBAL, CONTACT BY IMPACT, CONFLICT), LCS2 (NEW PLACE), LCS5 (INSTRUMENT), LCS6 (JOB)
(v) Class group 4a/b_8a/b_9:
LCS1 (INSTRUMENT, SUBSTANCE)

4. General conclusions

Here are the general conclusions of the analysis of the synchronically related Event verbs in *-ízo*:
(i) The data suggest that the conceptualization of Events to which *-ízo* verbs refer can differ even among the members of the same class group, cf. the variations 1a/b_*9, 1*a/b_9, 1*a/?b_9, etc. of the class 1a/b_9.
(ii) The alternations in which an *-ízo* verb participates are lexically encoded options on the basis of situations and they can vary only in a limited way, cf. the class 2a/b_4a/b_8a/b_9, which, as a marginal case, shows four alternations.
(iii) The majority of *-ízo* verbs are control verbs.
(iv) There are field and conceptual preferences inside (most of) the alternation classes (class groups).
(v) The restricted character of these preferences suggests that alternations are more relevant in an account of (*-ízo*) derivation.
The comparison between *new* and *old* derivation inside the alternation classes has shown that the patterns in which the suffix *-ízo* appears are not very different. Particularly:
(vi) There is a larger spectrum of semantic fields in the old derivation, a fact which is mainly accounted for on historical grounds, e.g. because some semantic fields are exhausted in the old derivation (cf. the exhausted field COLOUR).
(vii) On the other hand, the underlying conceptual structures in old and new derivation are the same.[25]
Taking syntax into consideration when describing verb derivation is a sound methodological principle for determining the relationship between a verb derivative and its base. The arguments in the second part of this paper and the discussion of the results from the analysis in the third part suggest that this enterprise gains in explanatory power and consequently in reliability if

[25] See Charitonidis (2005: 80-86) for details of the analysis of old and new derivation. Remember that according to the proposed model, conceptual structures are under-decomposed (see section 1.4).

verb derivation is examined within concrete meaning/syntax shifts, i.e. alternations, at the level of the whole verb unit.

Abbreviations

AC:	Alternation Class
AF:	Argument Fusion
CS:	Conceptual Structure
ISC-verbs:	Verbs with an irregular semantic connection to their base
LCS:	Lexical Conceptual Structure
SF:	Semantic Field

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Appendix A: The make-up of the split verbs

Note: In the cases of semitransparent verbs with an irregular semantic connection to their base (ISC-verbs), an approximate semantic field and an approximate conceptual structure is given (where possible). INTENTION is used as a general field for complex situations. LCS7 stands for the conceptual structure $_{State}$BE([ ], [AT([BASE])]).

Verbs	**Readings**	**Alternations**	**Semantic Fields**	**Conceptual Structures**
anemízo1	'wave'	8a/*b_*9	NATURE ELEMENT & MOTION	LCS2
anemízo2	'flap,' 'flatter'	1*a/b_*9	INTERNAL MOTION	see section
asfalízo1	'secure,' 'lock'	8a/b_9	PROVISION	LCS3
asfalízo2	'insure'	4a/b_8a/b_9	PROVISION	LCS2
asprízo1	'turn white'	1a/b_9	COLOUR	LCS2
asprízo2	'whitewash'	8a/b_9	SUBSTANCE & COVERING	LCS1
athrízo1	'add (up),' 'total up,' etc.	8a/b_9	INTENTION	ISC
athrízo2	'gather'	2*a/b_9	FORM & MOTION	ISC
axnízo1	'steam,' 'emit steam'	1*a/b_*9	EMISSION & ENDOGENOUS PRODUCT	LCS4
axnízo2	'steam sth' (food)	8a/b_9	MATTER & COOKING	LCS1
dhrosízo1	'cool'	1a/b_9	PSYCHOLOGICAL	LCS2
dhrosízo2	'effect a feeling of coolness,' 'freshen up,' 'refresh'	2a/b_4a/b_9	PSYCHOLOGICAL & BODY FEELING	LCS2
gremízo1	'demolish,' 'knock/pull/tear down'	2a/b_8a/b_9	MAJOR CHANGE OF STATE & NEW PLACE & FALL	ISC (?LCS2)

gremízo2	'throw/dash/ fling down'	2a/b_4a/b_9	NEW PLACE & FALL	LCS2
jalízo1	'polish,' 'burnish'	1a/b_8a/b_9	(MANUAL) WORK	ISC
jalízo2	'shine (like glass),' 'shimmer'	1*a/b_*9	SIMILATIVE & LIGHT EMISSION	LCS7
kapnízo1	'smoke,' 'give off smoke'	1*a/b_*9	EMISSION & ENDOGENOUS PRODUCT	LCS4
kapnízo2	'smoke,' 'cure'	2a/b_8a/b_9	COVERING	LCS1
kapnízo3	'smoke,' 'puff'	8a/b_9	EMISSION & ENDOGENOUS PRODUCT	LCS4
kerdhízo1	'earn,' 'win'	8a/b_9	CHANGE OF POSSESSION	LCS1 (AF)
kerdhízo2	'beat/defeat sm,' 'win'	8a/*b_*9	INTENTION	ISC
kokinízo1	'redden,' 'make sth red'	1a/b_9	COLOUR	LCS2
kokinízo2	'brown' (food)	8a/*b_9	COOKING	ISC (LCS2)
ksinízo1	'sour'	1a/b_9	FLAVOUR	LCS2
ksinízo2	'feel a sour taste'	2*a/b_9	PSYCHOLOGICAL	LCS1
lianízo1	'chop up,' 'cut up'	8a/*b_9	DIVISION	LCS2
lianízo2	'beat fiercely,' 'cut up sb,' 'defeat'	8a/b_*9	INTENTION & FORCE	ISC
midhenízo1	'reduce to nothing'	2a/b_9	VALUE & LOSS	LCS2
midhenízo2	'reduce to zero' (for counter), 'give no marks at all' (literally 'give the mark 0')	8a/b_9	VALUE	LCS3
mirízo1	'smell (of),' 'send off/give off a (good/bad) smell'	1*a/b_9	SMELL	ISC (?LCS4)
mirízo2	'smell,' 'sniff'	8a/*b_*9	SMELL	ISC (?LCS4)
orízo1	'appoint,' 'fix,' 'lay down,' 'define,' etc.	8a/b_9	ARRANGEMENT	LCS1
orízo2	'rule over,' 'be master,' 'have at one's disposal'	8a/*b_*9	ARRANGEMENT	LCS1
plevrízo1	'anchor,' 'drop/cast anchor'	1*a/b_9	THING PART & MOTION	LCS3
plevrízo2	'come up to,' 'draw/come alongside'	8a/b_*9	THING PART & MOTION	LCS3
plutízo1	'make rich'	1a/b_9	EARNING OF PROPERTY	LCS1
plutízo2	'enrich'	2a/b_9	INTENTION	ISC
podhízo1	'go back into port,' 'seek refuge in a harbour' (naut.)	No alternations	MOTION	ISC

podhízo2	'bear off/away,' 'take the bow of a ship away from the wind' (naut.)	8a/*b_9	THING PART & MOTION	ISC
potízo1	'water,' 'irrigate'	8a/b_9	WATER	opaque (?LCS1)
potízo2	'water sth/sm'	4a/b_8a/b_9	LIQUID/ WATER	opaque (?LCS1)
potízo3	'ooze'	1a/b_2a/b_9	LIQUID/ MOISTURE	opaque (?LCS1)
prasinízo1	'make green'	1a/b_9	COLOUR	LCS2
prasinízo2	'become covered with plants'	1*a/b_9	COLOUR & FLORA	LCS2
prikízo1	'provide with a dowry'	8a/*b_*9	PROPERTY & CHANGE OF POSSESSION	LCS1
prikízo2	'endow'	8a/b_9	INTENTION	ISC (?LCS1)
progízo1	'boo,' 'hiss,' 'shout down'	8a/*b_*9	VERBAL & CONFLICT	LCS1
progízo2	'shy' (animal), 'scare'	1a/b_*9	VERBAL & PSYCHOLO-GICAL	LCS1
rithmízo1	'regulate,' 'adjust'	2a/b_8a/b_9	ARRANGEMENT	LCS2
rithmízo2	'organize,' 'arrange'	8a/b_9	INTENTION	ISC
rokanízo1	'plane,' 'smooth,' 'crunch'	8a/*b_9	INSTRUMENT	LCS1
rokanízo2	'squander,' 'gnaw' (property)	8a/b_*9	PROPERTY & MAJOR CHANGE OF STATE	ISC
sixtirízo1	'insult scurrilously'	8a/*b_*9	VERBAL & CONFLICT	LCS1
sixtirízo2	'get exasperated' (not as a result of insulting!)	2*a/b_9	PSYCHOLOGICAL	ISC (?LCS2)
skorpízo1	'scatter,' 'distribute' (things)	1a/b_2a/b_ 8a/b_9	LOSS OF INTEGRITY	LCS2 (+BF)
skorpízo2	'scatter,' 'move apart' (people)	3a/b_4a/b_ 8a/b_9	LOSS OF INTEGRITY	LCS2 (+BF)
skorpízo3	'spread,' 'emit,' 'send forth,' 'give out'	2a/b_9	EMISSION	ISC (+BF)
skorpízo4	'squander,' 'waste' (money)	8a/b_9	LOSS OF PROPERTY	LCS2 (+BF)
skupízo1	'clean with a broom'	8a/b_9	INSTRUMENT	LCS1
skupízo2	'wipe,' 'dry'	4a/b_8a/b_9	(MANUAL) WORK	ISC
stixízo1	'cost'	No alternations	STATIVE	opaque (see section 2.1.3)
stixízo2	'line sb up'	4a/b_8a/b_9	FORM	LCS2
stolízo1	'ornament'	8a/b_9	MANUAL WORK	ISC
stolízo2	'dress'	4a/b_8a/?b_9	COVERING & DRESS	LCS1
sximatízo1	'form'	2a/b_9	FORM	LCS2

sximatízo2	'draw (e.g. a circle),' 'set sth/sb up'	2a/b_8a/b_9	FORM	LCS2
termatízo1	'bring to an end'	2a/b_8a/b_9	TIME & END	LCS2
termatízo2	'get to the finish line' (runner, etc), 'terminate' (vehicle, etc.)	No alternations	MOTION IN PLACE	LCS7
thisavrízo1	'amass wealth,' 'accumulate riches'	No alternations	PROPERTY & MAJOR CHANGE OF STATE	?LCS1
thisavrízo2	'collect sth valuable'	8a/b_9	(MANUAL) WORK	ISC
tonízo1	'accent,' 'stress,' 'emphasize'	8a/b_9	VERBAL	LCS1
tonízo2	'set off,' 'show off'	2a/b_9	FORM	ISC
traganízo1	'eat sth crispy,' 'crunch'	8a/?b_?9	FOOD & SOUND EMISSION	ISC (?LCS2)
traganízo2	'emit a crunchy sound,' 'crunch'	1*a/b_?9	SOUND EMISSION {FOOD}	ISC (?LCS4)
vasanízo1	'worry,' 'give sb a bad time'	2a/b_9	PSYCHOLOGICAL	LCS2
vasanízo2	'torture,' 'torment'	8a/b_9	NEGATIVE AFFECTION	ISC
xeretízo1	'say hello,' 'greet'	6a/b_*9	VERBAL & INTERPERSO-NAL CONTACT	LCS1
xeretízo2	'hail,' 'welcome'	8a/b_*9	VERBAL	ISC
xrimatízo1	'give (money as) bribes/ backhanders'	8a/b_*9	EXCHANGE	LCS1
xrimatízo2	'serve as'	No alternations	STATIVE	opaque (see section 2.1.3)
xronízo1	'become a year old,' 'reach the first anniversary'	No alternations	TIME COMPLETION	LCS7
xronízo2	'delay,' 'drag on'	No alternations	STATIVE	LCS7
zematízo1	'scald,' 'scorch' (immerse sth in very hot water/liquid for various purposes)	8a/b_9	(MANUAL) WORK (?HOT LIQUID)	opaque (?LCS2)
zematízo2	'scald,' 'scorch' (injure)	2a/b_9	MAJOR CHANGE OF STATE (?HOT LIQUID)	opaque (?LCS1)
zijízo1	'weigh sth/sm'	4a/b_8a/b_9	INSTRUMENT & NEW PLACE	LCS2
zijízo2	'weigh'	No alternations	STATIVE	ISC

Appendix B: Verb endings in Modern Greek

	1st conjugation		*2nd conjugation: type A*		*2nd conjugation: type B*	
Active voice:	*Sg.*	*Pl.*	*Sg.*	*Pl.*	*Sg.*	*Pl.*
Present	´-o	´-ume	-ó	-áme	-ó	-úme
	´-is	´-ete	-ás	-áte	-ís	-íte
	´-i	´-un	-ái	-ún	-í	-ún
Imperfect	´--a	´-ame	-úsa	-úsame	-úsa	-úsame
	´--es	´-ate	-úses	-úsate	-úses	-úsate
	´--e	´--an	-úse	-úsan	-úse	-úsan
Dependent	´-o	´-ume	´-o	´-ume	´-o	´-ume
	´-is	´-ete	´-is	´-ete	´-is	´-ete
	´-i	´-un	´-i	´-un	´-i	´-un
Simple past	´--a	´-ame	´--a	´-ame	´-a	´-ame
	´--es	´-ate	´--es	´-ate	´--es	´-ate
	´--e	´--an	´--e	´--an	´--e	´--an
Imperfective imperative	´--e/´-e	´-ete	´-a	-áte	´-i	-íte
Perfective imperative	´--e/´-e	´-(e)te	´--e	´-te	´--e	´-te
Gerund	´-odas		-ódas		-ódas	

Passive voice:	*Sg.*	*Pl.*	*Sg.*	*Pl.*	*Sg.*	*Pl.*
Present	´-ome	-ómaste	-iéme	-iómaste	-úme	-úmaste
	´-ese	´-este	-iése	-iéste	-íse	-íste
	´-ete	´-ode	-iéte	-iúde	-íte	-úde
Imperfect	-ómun	-ómastan	-iómun	-iómastan	-úmun	-úmastan
	-ósun	-ósastan	-iósun	-iósastan	-úsun	-úsastan
	-ótan	´-odan	-iótan	-iúdan	-údan	-údan
Dependent	-ó	-úme	-ó	-úme	-ó	-úme
	-ís	-íte	-ís	-íte	-ís	-íte
	-í	-ún	-í	-ún	-í	-ún
Simple past	´-ika	-íkame	´-ika	-íkame	´-ika	-íkame
	´-ikes	-íkate	´-ikes	-íkate	´-ikes	-íkate
	´-ike	´-ikan	´-ike	´-ikan	´-ike	´-ikan
Imperfective imperative	(lacking)		(lacking)		(lacking)	
Perfective imperative	´-u	-íte	´-u	-íte	´-u	-íte

[a] Adapted from Holton, D., P. Mackridge, and I. Philippaki-Warburton (1997), *Greek: a comprehensive grammar of the modern language,* London: Routledge, p. 116, with permission.

Von 1968 an erschienen die von Prof. Dr. Hansjakob Seiler herausgegebenen Arbeitspapiere des Instituts für Sprachwissenschaft. Nach der Emeritierung von Prof. Dr. Seiler im März 1986 wurde eine neue Folge mit neuer Zählung und dem Zusatz "Neue Folge" (N.F.) begonnen. Herausgeber ist Prof. Dr. Hans-Jürgen Sasse, Institut für Linguistik.

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