

**On special causatives:
'creating' object experiencer predicates**

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1. The puzzle

Greek has a pattern of creating new object experiencer predicates (corresponding to Belletti & Rizzi's Class II 'worry' predicates) that involves three sources primarily. We will call these predicates special causatives here:

Source I: internally caused change of state verbs (ICCS):

- (1) a. ta fruta orimasan *Internally caused*
the fruits ripened
The fruits ripened
b. i zoi %(tin) orimase ti Maria *Special Causative*
life cl ripened Mary-acc
Life ripened Mary

Source II: verbs of spatial configuration/assuming a position (Levin 1993, SCV):

- (2) a. O Janis gonatise *SCV intransitive*
the John-nom kneeled-3sg
John kneeled
b. Ta pola eksoda %(ton) gonatisan ton Manoli. *Special causative*
The many expenses-nom (him-cl) kneeled-3sg the Manoli-acc
Manolis suffered under the bulk of the expenses

Source III: EO readings are possible also with certain externally caused predicates, (e.g. the tear-apart class, see also Martin 2007 for French; in general, across languages the recruitment of new object experiencer predicates comes from this class):

- (3) a. O Janis dielise to aftokinito *externally caused*
the John-nom tore apart the car-acc
John tore the car apart
b. I zoi %(ti) dielise ti Maria *Special causative*
Life cl tore apart the Mary-acc
lit. Life tore Mary apart

Properties:

- a) there is a restriction on the thematic role of the subject: the subject bears the **causer role**.
b) the object is animate, and it is interpreted as an *experiencer*.
c) there is a strong preference for the animate object to be clitic-doubled. ¹

¹ For some speakers, these examples, as well as the experiencer object constructions to be introduced right below, are acceptable without the clitic under the condition that the main stress of the sentence falls on the verb and the object is distressed.

A similar effect of clitic doubling has been observed with class II psychological object experiencer predicates (EO) in Greek in Anagnostopoulou (1999), when the subject is a non-volitional causer:

- (4) a. ta nea *?(ton) stenahorisan to Jani *EO predicate*
 the news cl got upset the John-acc
 The news got John upset
- b. i simberifora su *?(tin) provlimatise ti Maria *EO predicate*
 the behavior yours cl puzzled the Mary-acc
 Your behavior puzzled Mary

Note further that Greek has two further types of transitivization involving unergative predicates; (5a) has also been reported for English (Levin & Rappaport Hovav 1995):

- (5) a. etreksa to alogo *transitive unergative*
 run-1sg the horse-acc
 I run the horse
- b. To jelasa to pedi *idiomatic transitive unergative*
 it laughed-1sg the child-acc
 I tricked the child (Roussou & Tsimpli 2007, Mavrogiorgos 2007)

In this presentation, we will focus on the class we labeled special causatives. We will briefly discuss transitive unergatives of the type in (5a); for a discussion of (5b) see Mavrogiorgos (2007), and Roussou & Tsimpli (2007).

Questions:

- Do these predicates include a causative component (both under the EO and non-EO reading); this is clearly the case for externally caused predicates, and as we argued in previous work for internally caused ones, but what about SCVs?
- How similar are these special causatives to EO predicates?
- How does the EO reading of non-psych predicates come about?

2. Special causatives and transitivization

2.1 Internally-caused change of state verbs

Levin and Rappaport Hovav (1995): two types of change of state verbs, externally caused change-of-state events imply the existence of an external causer with immediate control over the eventuality; on the other hand, internally caused change-of-state events involve properties inherent to the entities undergoing the events that are responsible for bringing about the eventuality.

- (6) a. **externally caused change-of-state verbs:**
 bake, boil, break, cool, crack, dry, freeze, lengthen, melt, open, shatter, straighten, widen.
- b. **internally caused change-of-state verbs (ICCOS):**
 bloom, blossom, corrode, decay, erode, ferment, germinate, molt, rot, rust, sprout, stagnate, wilt, wither.

Alexiadou, Anagnostopoulou & Schäfer (2006): Levin and Rappaport Hovav's externally caused class splits into two classes, externally caused ($\sqrt{\text{externally caused}}$ (kill, tear apart) and cause

unspecified ($\sqrt{\text{cause unspecified (break, open)}}$). Languages differ as to how they treat externally caused predicates, in languages such as Greek these also enter the causative alternation (where causer and agent subjects are allowed).

Importantly, ICCOS predicates were argued not to alternate:

- (7) a. Bill opened the door.
 b. The door opened.
- (8) a. *John bloomed the roses.
 b. The roses bloomed.

ICCOS and intransitive variants of alternating predicates contain a causative component (Alexiadou, Anagnostopoulou & Schäfer 2006, 2015) signaled by the availability of modification via a causer PP (shown here for Greek, as in Greek *me*-PPs truly require a causative component to be licensed as causer modifiers):

- (9) a. I porta anikse me ton aera
 the door-nom opened with the wind-acc
 The door opened from the wind.
 b. To fito anthise me tin zesti.
 The plant-nom blossomed with the heat
 The plant blossomed from the heat.

But: McKoon and Macfarland (2000), Wright (2001, 2002) and Levin (2009) for English, Alexiadou (2014), Roussou & Tsimpli (2007) and references therein for Greek, these predicates can transitivize under special conditions, pretty much the same in both languages:

- (10) a. Salt air rusted the metal pipes.
 b. Early summer heat wilted the petunias.

Restriction on the subject: the subjects of transitive ICCOS verbs tend to be natural forces/causers, and are very rarely animate.

- (11) a. Water corrodes cooper.
 b. There two ways in which wind erodes land.

McKoon and Macfarland observe that there is really no other type of subjects. Similar observations hold for Greek. While verbs undergoing the causative alternation permit all kinds of subjects (12), ICCOS verbs rarely (if ever) have a human subject, see also Roussou and Tsimpli (2007), Lavidas (2007):

- (12) O Janis/o sismos espase to vazo.
 The-John-nom/the earthquake-nom broke the vase-acc
 John/The earthquake broke the vase.
- (13) ?i igrasia muxliase tus sporus.
 the humidity-nom them molded-3sg the seeds-acc
 The humidity molded the seeds.

- Important property of transitive ICCOS: they do not passivize.²

(14) *I spori muhliastikan apo tin igrasia
the seeds molded-NAct by the humidity

2.2 SCVs

Other predicates that behave alike, *kaburiazo* 'slouch', *vuliazoo* 'slump', and see also Mavrogiorgos (2007).

(15) Ta pola eksoda %(ton) gonatisan/vuliaksan ton Manoli.
The many expenses-nom (him-cl) kneeled-3sg/slumped the Manoli-acc
Manolis suffered under the bulk of the expenses.

Levin & Rappaport Hovav (1995) discuss the behavior of spatial configuration verbs and propose that the causative use thereof is associated with a causative template.

They bring a series of arguments that these verbs are not verbs of existence, as proposed in Hoekstra & Mulder (1990). However, they analyze the intransitive variant of these verbs as stative.

Two arguments brought by Levin & Rappaport Hovav for SCVs across languages:

(i) *morphological irregularity*, i.e. in languages where anticausatives are marked, intransitive variants of SCVs are not marked. This is not really an argument that can be transferred to Greek, as in this language anticausatives come in two variants, marked and unmarked, see (15-16), and (17) vs. (18).

- | | | |
|------|--|-----------------|
| (16) | O Manolis gonatise/vuliakse
the Manolis-acc kneeled-3sg/slumped-3sg
Manolis kneeled/slumped. | <i>unmarked</i> |
| (17) | a. O Janis anikse tin porta
John-nom opened the door
John opened the door
b. I porta anikse
the door opened | <i>unmarked</i> |
| (18) | a. O Janis ekapse to vivlio
The John-nom burn-3sg the book-acc
John burned the book
b. To vivlio kaike
The book burnt-NAct-3sg
The book got burnt | <i>marked</i> |

ii) *Inanimate subjects are impossible in intransitive variants:*

(19) *The load balanced on the wagon.

² Note that both McKoon and Macfarland (2000) for English, Alexiadou (2014) for Greek point out that certain ICCOS predicates have been mis-classified as such. They are truly externally caused verbs, e.g. ferment. The claim about passivization concerns the *blossom*, ripen etc. class.

Again this does not hold for Greek:

- (20) To plio/to fortio vuliakse/isoropise stin apovatrha
the boat/the load slumped-3sg/balanced-3sg at the dock
The boat/the load slumpe/balanced on the dock

Moreover, in Greek, (also) in their EO reading, they are similar to verbs undergoing the causative alternation on the basis of the *by-itself* test (Levin & Rappaport Hovav 1995, Alexiadou, Anagnostopoulou & Schäfer 2015):

- (21) O Janis gonatise apo monos tu/ I varka vuliakse apo moni tis
the John-nom kneeled by himself/ The boat slumped by itself
Reading: no external causer that caused the kneeling/ slumping

- Importantly: SCVs in their transitive variants, similar to ICCOS verbs, accept only non-volitional causers only as subjects. In other words, agentive subjects are out. Moreover, these predicates do not passivize:

- (22) a. *O Janis gonatise ton Manoli
John kneeled the Manoli-acc
b. *O Manolis gonatistike apo to Jani/apo tus forus
The Manolis-nom kneeled-NAct by the John-acc/by the taxes

2.3 EO readings of externally caused verbs

We noted that EO readings are possible also with certain externally caused predicates, when the subject is a causer and the object is animate. These predicates can also take agentive subject in their non-EO readings; as externally caused predicates have a causative component, we take it that it is present in the EO interpretations too. This is signaled by the *by itself* test; note that the intransitive variants of these predicates maybe marked, but crucially do not have passive readings (signaled by the ungrammaticality of the *apo*+animate DP phrase):

- (23) a. I zoi %(ti) dielise ti Maria/O Petros dielise to grafio
Life cl tore apart Mary/The Peter tore apart the desk-acc
Life tore apart Mary/Peter tore the desk apart
b. I Maria dialithike **me** ti simberifora tu Petru
the Maria tore apart-NAct from the behavior of Peter
c. i Maria dialithike apo moni tis
the Maria tore apart-NAct by herself
lit. Maria tore apart by herself
d. *I Maria dialithike **apo** to Petro
the Maria tore apart by Peter

- All three classes are thus causative and undergo the causative alternation.

2.4. A note on transitive unergative predicates

This class has different restrictions; we will briefly discuss the behavior of these predicates and then leave them aside. This process has been discussed for English in Levin & Rappaport Hovav (1995):

- (24) The rider jumped the horse over the fence.
- (25) a. to moro perpatise
the baby-nom walked-3sg
The baby walked.
- b. O Janis perpatise to moro
the John-nom walked-3sg the baby-acc
'John walked the baby.'

Levin and Rappaport Hovav (1995) point out three differences between examples of this sort and the alternation found with *break* verbs.

- i) First, the subject is interpreted as also walking or running (accompanying the horse).
- ii) Second, the object maintains a degree of agentivity that is uncharacteristic of the objects of verbs that participate in the causative alternation.
- iii) Third, the subject can only be an agent not a cause, see (26), (Reinhart 2000):

(26) *The tear gas marched the soldiers to the tents.

- Our other verbs, however, show exactly the reverse behavior: they disallow agent subjects, and allow only causer subjects.

In this, they seem to behave similarly to cases of what Reinhart calls syntactic causativization. Moreover, subjects of our special causatives do not show the accompanying effect observed in (27). In e.g. (27), there is no sense in which salt air somehow undergoes a rusting process. This suggests that these transitive uses are different from those involving unergative predicates:

(27) Salt air rusted the metal pipes.

- Especially for Greek, Theophanopoulou-Kontou (2003) showed that there are two groups of unergative intransitives that also allow for a transitive syntax:
- a) The first group involves predicates like *trexo* (run), *jelao* (laugh), *kalpazo* (gallop). This group triggers idiomatic readings which are nevertheless causative:

(28) I Maria me trexi
Mary me runs
means Maria is the cause for my metaphorical running (haste).

- b) The second group of unergatives mainly involves predicates of (manner of) motion, such as *perpatao* (walk), *serjanizo* (stroll), *taksidhevo* (travel), etc. This group is like its English counterparts do not trigger a causative reading. Instead, they imply a 'with' reading in the sense of escorting, or means of motion.

3. Special causatives and EO predicates

- (29) a. o Janis gerase *Intransitive*
John got old
- b. o xronos %(ton) gerase to Jani *Special Causative*
time cl got old the John-acc

- (30) a. ta fruta orimasan *Intransitive*
 fruits ripened
 b. i zoi %(tin) orimase ti Maria *Special Causative*
 life cl ripened the Mary-acc
- (31) Ta nea %(tin) dielisan ti Maria *Special Causative*
 the news cl tore apart the Mary-acc

Properties of special causatives under the EO readings:

- a) the causer is non-volitional, the animate object is interpreted as an experiencer;
 b) they do not form a passive:

- (32) a. *I Maria orimastike *ICCOS*
 the Mary ripened-NAct
 Mary was ripened
 b. *I Maria gonatistike *SC*
 the Mary kneeled-NAct
 c. *I Maria malakothike *externally caused*
 the Mary softened-NAct

- c) there seems to be a strong preference for the presence of a clitic (and see fn 1) when the object is animate:

- (33) i krisi orimase to podosfero³
 the crisis ripened the football

- Thus our special causatives are a set of constructions where doubling is sensitive to animacy in Greek. And doubling is context sensitive, i.e. it looks at the causative, non-animate/agentive subject. That is, it is configurational, like dependent case.

The link to OE predicates:

As is well known, these predicates are ambiguous between agentive and non-agentive readings as well as stative and eventive readings. Modification via agent oriented, in-X time and for-X time PPs disambiguates (Alexiadou & Iordachoaia 2014). These predicates do not passivize, diagnosed also by the unavailability of *-able* formation (Alexiadou 2016):

- (34) O Janis enohlise ti Maria *epitides/me ena bastuni.* *agentive*
 the John annoyed the Maria intentionally/with a stick
 John annoyed Mary intentionally/with a stick.
- (35) a. to pehnidi enohlise ti Maria se deka lepta. *eventive*
 the game annoyed the Maria in ten minutes
 the game annoyed Mary in ten minutes.
 b. to kurema tis Marias ton enohluse to Jani ja mia ora *stative*
 the haircut the Mary-gen him annoyed the John-acc for an hour
 Maria's haircut annoyed John for an hour.

³ (<http://www.novasports.gr/podosfairo/ellada/super-league/article/111795/moralis-i-krisi-orimase-to-podosfairo/>)

Clitic-Doubling with EO predicates:

Anagnostopoulou (1999) did not distinguish between eventive vs. stative EO predicates, conflated the two. It turns out that there are two types of EO predicates (Landau 2010 and others). The statives are unaccusative and require doubling for the reasons outlined in Anagnostopoulou (2003: to obviate intervention effects when the theme/target-subject matter moves across the experiencer). The eventives, though, are not strictly speaking unaccusative, but still require/strongly prefer doubling and resumption in relative clauses.

Specifically, the generalization seems to be that with stative EO predicates the *clitic is obligatory*:

- (36) a. Ta mathimatika *?(ton) endiaferun ton Petro
The-mathematics-nom *?(cl-acc) interest the Peter-acc
Mathematics interest Peter.

Clitic-doubling is also strongly preferred with eventive EO predicates with causer subjects and animate experiencers (see also our fn. 1 that special intonation may obviate the need for doubling):

- b. Ta mathimatika %(ton) enthusiasan ton Petro
The-mathematics-nom %(cl-acc) excited the Peter-acc
Mathematics excited Peter.

We are interested in these cases because special causatives unambiguously behave like eventive EO psych predicates. The question is how to analyse doubling/resumption in them.

Evidence that special causatives are eventive:

- With respect to modification, they behave like eventive EO predicates:

ICCOS:

- (37) Ta capital controls ton gerasan ton Petro se mia nixta
the capital controls cl got old the Peter-acc in one night
Capital controls aged Peter in one night

- (38) *I krisi ton gerase ton Petro ja mia ora
the crisis cl got old the Peter-acc for an hour

- Alternation with *me*-PPs:

- (39) O Petros gerase me tin krisi
The Peter got old with the crisis
Peter aged because of the crisis

SCVs:

- (40) I krisi tus gonatise se ena mina
the crisis cl kneeled-3sg in a month
The crisis made them suffer in a month

- (41) I polites gonatisan me tus forus
 the citizes kneeled with the taxes
 The citizes suffered from the taxes

Externally caused:

- (42) I krisi ti dielise ti Maria se ena mina
 the crisis tore apart the Maria-acc in a month
 The crisis tore Maria apart in a month

- (43) I Maria dialithike me ti krisi
 the Mary tore apart-NAct with the crisis
 Maria got torn apart because of the crisis

Following, Arad (1998, 2002), Pylkkänen (2000): the eventive reading presupposes a preceding event that triggers the psychological state of the experiencer, which may last independently of the triggering event.

- (44) -----|----- *eventive reading*
 causing event psych state

- Importantly, in both special causatives and EO predicates clitic doubling does not obey the same restrictions as clitic-doubling with direct objects of regular transitive verbs in Greek.
- Anagnostopoulou (1999): clitic doubling found with psych predicates differs from canonical clitic-doubling of direct objects. As she details, DO-doubling in Greek is felicitous only with *anaphoric* definites, not with "novel" or "accommodative" definites (i.e. it is subject to the *Prominence Condition*, cf. Anagnostopoulou 1994, for details). EO-doubling, on the other hand, violates the Prominence Condition. This difference is exemplified in (45):

- (45) a. Prin apo ligo kero eghrapsa mia vivliokrisia jia ena kenourjo vivlio
 pano sto clitic doubling_i.
 'Some time ago, I reviewed a *new book* on clitic doubling'
- b. #Arghotera ton sinandisa ton sigrafea_k se ena taksidhi mu
 #Later on cl-acc met-I the author-acc in a trip my
 'Later on, I met him-the author during a trip of mine'
- c. I kritiki mu ton enohlise ton sigrafea_k
 The criticism my cl-acc bothered the-author-acc
 toso oste na paraponethi ston ekdhoti
 such that subj complain to-the editor
 'My criticism bothered the author so much that he complained about it to the editor'

As (b) shows, doubling of the direct object *ton sigrafea* is infelicitous in a context where the definite may satisfy the Familiarity Condition only via *accommodation* (i.e. linking of the index *k* of "the author" to the index *i* of "the new book on clitic doubling that the speaker reviewed some time ago" which has already been introduced in the file). The acceptability of (c) in the same context indicates that EO-doubling is not subject to this restriction.

ICCOS behave similar to EO predicates:

- (46) I kritiki mu ton orimimase ton sigrafea_k
 The criticism my cl-acc ripened the-author-acc
 toso oste na alaksi katefthinsi
 such that subj change direction
 'My criticism ripened the author so much that he changed topic.'

SCVs too:

- (47) a. Prin apo ligo kero eghrapso mia vivliokrisia jia ena kenourjo vivlio
 pano sto clitic doubling_i.
 'Some time ago, I reviewed a *new book* on clitic doubling'
 b. #Arghotera ton sinandisa ton sigrafea_k se ena taksidhi mu
 #Later on cl-acc met-I the author-acc in a trip my
 'Later on, I met him-the author during a trip of mine'
 c. I kritiki mu ton gonatise ton sigrafea_k
 The criticism my cl-acc kneeled the-author-acc
 toso oste na allaksi epaggelma
 such that subj change profession
 'My criticism made the author suffer so much that he complained about
 it to the editor'

Externally caused predicates as well:

- (48) a. Prin apo ligo kero eghrapso mia vivliokrisia jia ena kenourjo vivlio
 pano sto clitic doubling_i.
 'Some time ago, I reviewed a *new book* on clitic doubling'
 b. I kritiki mu ton dielise ton sigrafea_k
 The criticism my cl-acc tore apart the-author-acc
 me apotelesma na allaksi epaggelma
 with result subj change profession
 My criticism tore the author apart so that he changed his profession

Anagnostopoulou (1999):

(ii) *Accusative experiencers syntactically behave like dative DP objects.* (In Greek they bear genitive morphology and they alternate with PP-datives introduced by an overt preposition 'se' (to; goals) and 'apo' (from; sources), see Anagnostopoulou 2003, 2005, Michelioudakis 2012, Georgala 2012, i.a.). As is well-known, in double object construction in English and its counterparts crosslinguistically 'shifted' datives cannot undergo relativization (generally null-operator movement constructions):

- (49) a. *Bill likes the man that John gave a book
 b. Bill likes the man that John gave the book to

Greek datives (i.e. morphologically genitive NPs) pattern with English shifted datives in this respect (cf. Stavrou 1984, Alexiadou & Anagnostopoulou 2000) for discussion). (a) is a null operator restrictive relative clause (RRC) in which the extraction site is a bare dative, while (b) is an instance of a wh-RRC in which a PP-dative is moved pied-piping the overt preposition:

- (50) a. *Simbatho ton anthropo pu o Petros edhose
 Like-1sg the man-acc that the Peter-nom gave
 to vivlio
 the-book-acc
 I like the man that Peter gave the book
- b. Simbatho ton anthropo s-ton opio o Petros
 Like-1sg the man-acc to-the which the-Peter-nom
 edhose to vivlio
 gave the book-acc
 I like the man to whom Peter gave the book.

No such restriction applies to direct objects cross-linguistically:

- (51) a. I like the man that John met
- b. Simbatho ton anthropo pu sinantise o Petros
 Like-1sg the man-acc that met-3sg the Peter-nom
 'I like the man that Peter met'

Constructions like (a) can be rescued if a dative clitic is present inside the RRC:

- (52) Simbatho ton anthropo pu o Petros **tu**
 Like-1sg the-man-acc that the Peter-nom cl-dat
 edhose to vivlio
 gave the book-acc
 I like the man that Peter gave him the book

Such a clitic is ungrammatical in RRCs whose 'head' functions as a direct object of the embedded verb whenever the head of the RRC is definite:

- (53) *Simpatho ton anthropo pu **ton** sinandise o Petros
 Like-1sg the-man-acc that cl-acc met-3sg the-Peter-nom
 I like the man that Peter met him

Anagnostopoulou (1999) shows that EO-relativization is identical to IO-relativization regardless of whether the experiencer has dative or accusative case. The experiencer cannot undergo relativization unless a clitic is present inside the RRC. Note, furthermore, that in all examples below the head of the relative is a definite NP which, as mentioned above, does not license clitics when it is a direct object.

Updating Anagnostopoulou (1999) by taking into account the stative-eventive distinction of accusative EO-predicates, we note that the clitic is required, regardless of whether the psych-construction is of the 'piacere-class' (Class III), the stative 'preoccupare-class' (stative Class II) or the eventive 'preoccupare-class' (eventive Class II):

- (54) a. *Class III*
 O anthropos pu *(tu) aresi i Maria ine ilithios
 The man that (cl-dat)like-3sg the-Mary-nom is stupid
 The man that Mary appeals to is stupid

Stative Class II

- b. O anthropos pu *(ton) endhiaferi i Maria ine ilithios
 The man that (cl-acc) interests the-Mary-nom is stupid
 The man that Mary interests is stupid

Eventive Class II

- c. O anthropos pu *(ton) provlimatisan ta nea
 The man that (cl-acc) puzzled the-news-nom
 bike mesa
 came in
 The man that the news puzzled came in.

- While Anagnostopoulou (1999) did not take into account the stative vs. eventive distinction, the judgments do not change if the predicates were eventive.
- The resumptive pronoun pattern strongly supports the view that accusative experiencers are not licensed as normal structural objects (see Landau 2010 for an analysis of the Greek facts and comparable facts attested in Hebrew and related facts in many other languages, in terms of the hypothesis that experiencers are locatives, introduced by a zero preposition, regardless of whether they bear dative or accusative morphology).

ICCOS behave similarly to accusative experiencers with respect to resumption:

- (55) O anthropos pu ?*(ton) orimase i zoi
 The man that (cl-acc) ripened the life-nom
 egrapse ena singlonistiko vivlio
 wrote an amazing book
 The man that life ripened wrote an amazing book

- ICCOS accusative objects similar to accusative experiencers are not licensed as structural objects but rather similarly to dative objects.

SCVs also behave alike:

- (56) O anthropos pu ?*(ton) gonatise i zoi
 The man that (cl-acc) kneeled the life-nom
 egrapse ena singlonistiko vivlio
 wrote an amazing book
 The man that life made suffer wrote an amazing book.

Note here that no resumption is necessary, in fact it is strongly dis-preferred just like regular direct objects, when the object is in-animate:

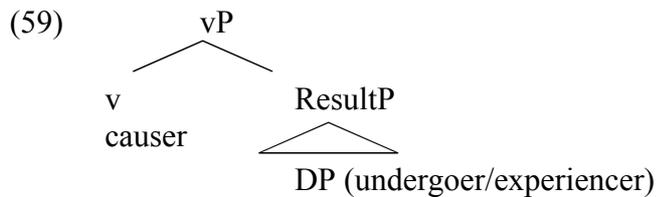
- (57) To athlima pu (% to) gonatise i krisi ine to podosfero
 the sport that kneeled the crisis is the football

Externally caused predicates behave similarly to accusative experiencer predicates with respect to resumption:

- (58) O anthropos pu ?*(ton)dielise I zoi
 The man that (cl-acc) tore apart the life-nom
 egrapse ena singlonistiko vivlio
 wrote an amazing book
 The man that life tore apart wrote an amazing book

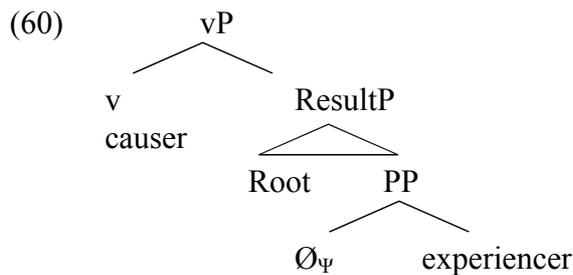
4. Towards an analysis

We have shown that our special causatives are eventive and causative, thus they should be treated on a par with other causative predicates; we assume that causers are related to an eventive v, they are modifiers of the event and not event participants, see (59) from Alexiadou (2014) for transitive ICCOS, and Alexiadou, Anagnostopoulou & Schäfer (2015) for causatives, and Alexiadou & Iordachioaia (2014), Alexiadou (2016) for EO predicates. Crucially, these lack Voice, which explains the non-structural properties of the object and the lack of passivization; spatial configuration predicates can in principle be treated on a par (Alexiadou & Schäfer 2011):



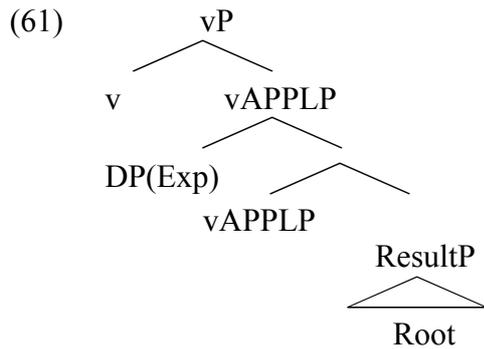
When the undergoer is an animate argument, we saw that it behaves like an experiencer argument. We can account for this:

a) Either by assuming that it is a PP, following Landau (2010), which leads to the following structure:



b) Alternatively, the experiencer is introduced by an applicative head above the ResultP containing the Root (under the assumption that datives in Greek are high applicatives, for which there is a lot of evidence):⁴

⁴ Structure (60) more straightforwardly expresses the fact that the object is simultaneously the undergoer of the change and an experiencer, but is incompatible with recent work by Anagnostopoulou & Sevdali which argues that a major change from Classical Greek to Modern Greek was the restructuring of dative and genitive objects from PPs bearing inherent case to DPs bearing dependent case along the lines proposed by Baker (2015) building on Marantz (1991). It is also incompatible with the view that clitics and clitic doubling in Greek relate to DPs and not to PPs (Anagnostopoulou 2003). On the other hand, structure (61), as it stands, does not express the “double status” of the object, which is simultaneously the undergoer of the change and the person affected by it. This structure would have to be more complicated, either by assuming a movement from a position internal to the Root (along the lines of Ramchand 2003, see Michelioudakis 2012 and Georgala 2012 for evidence that Greek high applicatives originate



- Domain of idiomatic interpretation: Marantz (1997), Anagnostopoulou & Samioti (2014)

(62) **Voice generalization:** the only structure that is compositional is the one that includes Voice, the layer introducing the external argument

- All our predicates can be co-erced into an EO reading in a structure that lacks Voice, as the corresponding structures are very similar to those of EO predicates, see Landau (2010).
- A causative structure with a non-volitional causer and an animate undergoer/experiencer can be interpreted as a psychological predicate by the encyclopedia.
- This is expected under the analysis of EO predicates as being a sub-case of the causative alternation (Alexiadou & Iordachioaia 2014).
- Across verb classes, the common schema is that the subject is a non-volitional causer and the object is animate, i.e., these verbs are not agentive under an EO reading.
- For the *tear-apart* class in particular, Ruwet (1972) suggested that such readings involve a change in semantic roles:

(63) physical change of state → psychological change of state

Agent → Causer
Theme → Experiencer

- Martin (2007): EO readings of physical contact predicates similar to psychological predicates focus presuppose the causing event and assert the resulting state (see also Iwata 1995, and (44) above).
- We think that the EO readings of our predicates do not require a change in thematic roles necessarily, as our ICCOS and SC class lack agentive subjects to begin with.
- We seem to be dealing with co-ercion of a structure along the lines of (59), presumably related to a difference in animacy between the two arguments that facilitates the re-interpretation of non psych-verbs under the general schema of psychological predicates.

The syntax of clitic-doubling:

We have shown that there is an animacy effect in our constructions, which suggests that clitic doubling is sensitive to animacy as well as aspectual restrictions. With respect to animacy, we

from a low applicative construction) or by having a zero argument controlled by the applicative internally to the ResultP.

could argue following Landau (2010) that experiencers move obligatorily to a vP-external position and the clitic is a reflex of this movement (a lot of movement operations in Greek target clitics instead of full DPs, see Alexiadou & Anagnostopoulou 1997, Anagnostopoulou 2003, i.a.).

5. Conclusions

- Next to genuine EO predicates, Greek recruits productively new object psych verbs from other causative predicates.
- There is an animacy effect, which is signaled by clitic doubling of the experiencer.
- As in other languages, verbs of physical change of state are used to create new psychological predicates.
- We showed that the recruitment takes place also from other classes, which seem to share the same causative syntax.
- Does this hold in other languages as well? What are the conditions that allow that?
- In languages that allow transitive ICCOS verbs with the properties discussed in section 2, we expect such readings to emerge.

(64) The presidency aged Obama

- With respect to SCVs, if a language allows a causative intransitive construal then a transitive construal with a causer subject can easily be amenable to an EO reading as described here for Greek.