

**ADJECTIVAL PASSIVES AS A TOOL FOR
DECOMPOSITION: INSTRUMENTS, MANNER, RESULT,
AND THE BEHAVIOR OF ROOTS IN CONTEXT**

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Goals

- Investigate how **roots** interact with **syntactic context** on the basis of a case study which involves **denominal instrument verbs in Greek**.
- Look at the distribution and properties of instrument verbs in contexts forcing **manner** vs. **result interpretation** and will ask:
 - a) Is there a uniform ontological category **instrument** characterizing roots, resulting in a uniform behavior of verbs?
 - b) How do instrument verbs behave in contexts forcing **result vs. manner interpretations**?

The answer to question **a)** is negative; I am identifying **three different classes** with distinct properties.

The answer to question **b)** is interesting: such contexts force coercion with one class or bring about polysemous senses of verbs with another.

- In the final part of the talk I will identify two factors that play a role in the differences: (a) Aspectual distinctions. (b) The nature of the result.

A context for studying manner and result in Greek

- Due to their **exceptional** properties, Greek adjectival participles constitute diagnostic environments for studying manner and result properties of verbs (Rappaport Hovav & Levin 1998, 2010; Rappaport Hovav 2014; Beavers & Koontz-Garboden 2012).
 - (i) Target state adjectival participles (Kratzer 2000) bring out **result properties**.
 - (ii) Resultant state adjectival participles (Kratzer 2000) retain **manner properties**.

Voice and Result

- **2 keys** to the result vs. manner difference: (i) the absence vs. presence of **Voice**, and (ii) the obligatoriness vs. optionality of **Result** in the two kinds of participles:

- (1) a. PRT [v [Result]] Target state participles
b. PRT [Voice [v (Result)]] Resultant state participles

3 classes of instrument verbs: a case study

- I investigate **three classes of denominal instrument verbs** in Greek in the two contexts:
 - BROOM-verbs** (cf. Levin's wipe verbs, the instrument subclass)
 - LOCK/SEAL-verbs** (cf. Levin's tape verbs, verbs of combining and attaching)
 - FILE/POWDER-verbs** (body-care verbs)

Question: Is there a uniform ontological category **INSTRUMENT** uniquely identifying manner verbs with the aspectual characteristics described in RH & L (1998)?

Answer: Negative, several refinements are needed.

Background: Target- and resultant-state participles

- Kratzer (2000) argues that adjectival participles do not form a homogeneous semantic class.
- They are divided into **two subclasses**, namely **target** and **resultant state** participles (Parsons 1990: 234-235).
- **Target state** participles describe states that are in principle **reversible**.
- **Resultant state** participles introduce states that hold **forever after** the event that brings them about.
- *Immer noch* 'still' modifies **reversible states** and is compatible only with **target state participles**.

Immer noch/still test

(2) *Target state participles: compatible with 'immer noch'*

- a. Die Geisslein sind **immer noch** **versteckt.**
The little goats are still hidden.
- b. Die Reifen sind **immer noch** **aufgepumpt**
The tires are still pumped up.

(3) *Resultant state participles: incompatible with 'immer noch'*

- a. Das Theorem ist **(*immer noch)** **bewiesen.**
The theorem is **(*still)** proven.
- b. Die Kinder sind **(*immer noch)** **gewaschen.**
The children are **(*still)** washed.

For-adverbials modifying target vs. resultant states

Target state participles are related to **telic verbs** whose **target state** can be modified by **for-adverbials** while **resultant state** participles are related to **telic verbs** that **disallow** this type of modification:

(4) Wir werden das Boot für ein paar Stunden aufpumpen.
We will the boat for a few hours up-pump

‘We will inflate the boat for a few hours.’

Implies: the boat will remain inflated for a few hours.

(5) *Wir werden den Briefkasten für drei Tage leeren.
We will the mailbox for three days empty

‘We will empty the mailbox for three days.’

Basic facts: ambiguous participles in Greek

- Verbs like Greek *fuskono* 'inflate' are allowed to form target state adjectival passives, and are also allowed to combine with Voice-related modifiers in the absence of 'still':

(6) *ok*: 'inflated' and 'still'

a. Ta lastixa ine akoma fusko-**mena**
The tires are still inflated

ok: 'inflated' and 'by phrases', 'instruments' 'agent-oriented adverbs'

b. Ta lastixa ine fusko-**mena** apo tin Maria/ me tin
tromba/ prosektika
The tires are inflated by Mary/ with the pump/
carefully

Core Observation

- As soon as an agent or instrument PP or an agentive adverb is present, a target state participle is coerced into a resultant state participle:

(7) Ta lastixa ine (*akoma) fuskomena **apo tin** **Maria.**
the tires are (still) inflated by the Mary
'The tires are still inflated by Mary.'

(8) Ta lastixa ine (*akoma) fuskomena **me tin** **tromba.**
The tires are (still) inflated with the pump
'The tires are (*still) inflated with the pump.'

Target states incompatible with Voice

- Manner adverbs modifying **the initiator of the action** such as *vorsichtig* 'carefully' (**agent-oriented**) are not licensed:

(9) To thisavrofilakio itan (*akoma) prosektika anigmeno.
the safe was (still) cautiously opened
'The safe was (*still) cautiously opened.'

Result-oriented manner adverbs ok

- ‘Still’ can only co-occur with ‘result-oriented’ manner-adverbs (resultative adverbs, Parsons 1990, Geuder 2002):
- *Result-oriented/resultative manner adverbs and ‘still’*

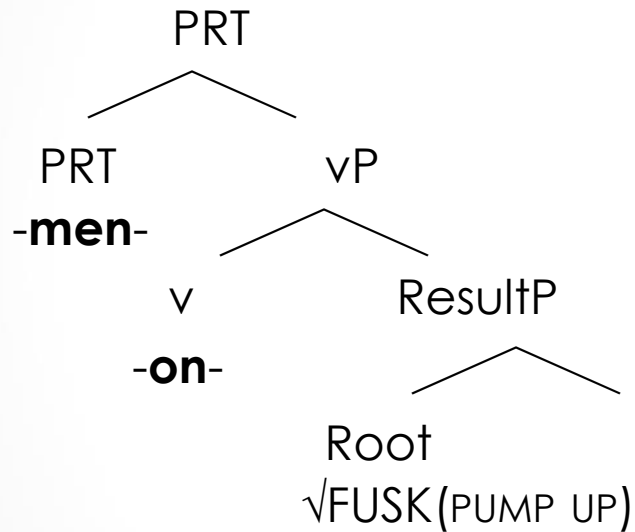
(10) Ta lastixa ine akoma fuskomena kala
The tires are still inflated well
‘The tires are still well inflated’

Architecture of Greek participles

- On the basis of these observations, Anagnostopoulou (2003) concluded that **Voice** can only be present in Greek **resultant state participles**.
- Alexiadou & Anagnostopoulou (2008) and AAS (2015) have analysed Greek participles in a **Distributed Morphology (DM) decomposition framework**.
- They proposed that the two participles differ in the **height of attachment of the participle forming morpheme**. It attaches to **vP** in **-menos target state** participles and to **VoiceP** in **-menos resultant state** participles.

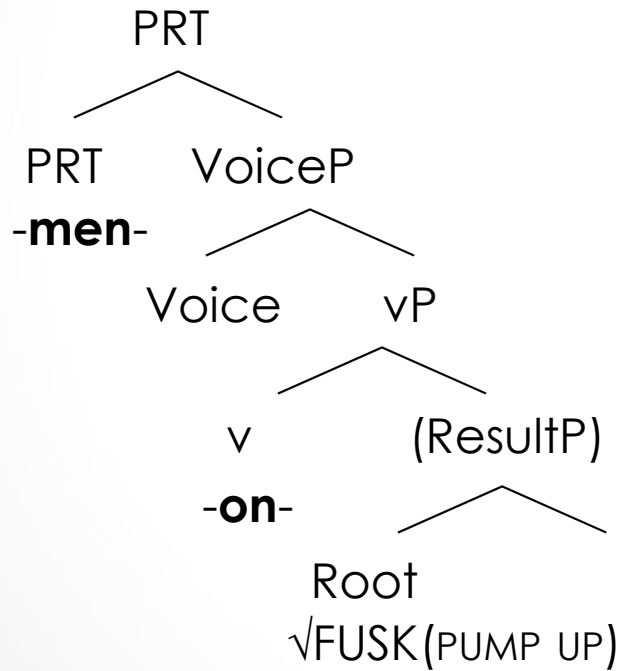
Target states

(11) *Target state adjectival participles: PRT attaches to vP and no higher*



Resultant states

(12) *Resultant state adjectival participles: PRT may attach to VoiceP*



Two types of languages

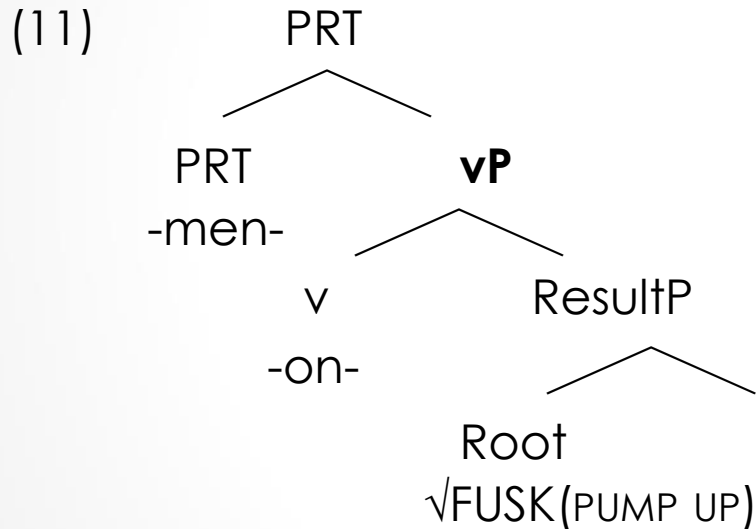
- **Greek** (Anagnostopoulou 2003), **Russian** (Paslawska & von Stechow 2003, Masha Polinsky, p.c.), **Swedish** (Larsson 2009): **Voice-modifiers in resultant state adjectival participles are freely present.**
- **German** (Rapp 1997), **English** (McIntyre 2013), **Hebrew** (Meltzer-Asscher 2011): **Voice-modifiers in resultant state adjectival participles are subject to restrictions** (see McIntyre 2015, Gehrke 2015).
- Here, I will be concentrating on Greek, which belongs to the liberal group of languages.

No need for ResultP in resultant state participles

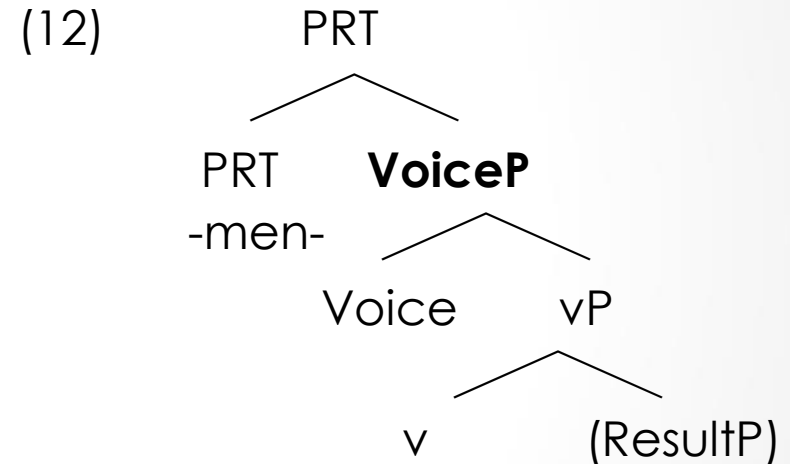
- PRT in (12) = Kratzer's (2000) Perfect operator which leads to the interpretation that the run time of the verbal event took place before the time denoted by the stativized VoiceP.
- All verbs, even atelic verbs under 'the job is done' interpretation (Kratzer 2000) can form resultant state adjectival participles
 - No need for ResultP in resultant state participles.

Attachment sites for modifiers

“well”-type adverbs attach to vP



by-phrases, instruments, agent-oriented adverbs attach to Voice



A new diagnostic

- We are thus led to a new diagnostic for manners and results in Greek:

A New Diagnostic for manners and results in Greek

- a. **Resultant state participles**: a diagnostic environment for **manner** verbs/ manner components in verbs.
 - b. **Target state participles**: a diagnostic environment for **result** verbs/ result components in verbs.
- **The advantage of this diagnostic** is that it yields **very clear** judgments.

The manner-result taxonomy

- Rappaport Hovav and Levin RH&L (1998, 2010); Levin (2006); Beavers & Koontz-Garboden (2012) and related work:
 - (13) a. Verbs are **classified** as **lexicalizing manner** or **result**
 - b. **Lexicalizing manner**: manner is entailed in any use of the verb
 - c. **Lexicalizing result**: result is entailed in any use of the verb

Simplex vs. Complex event structure

- The literature generally agrees that manner verbs have **a simple event structure**, consisting of a primitive verbal predicate ACT modified by a manner root. Result verbs have **a complex event structure**. RH&L's 1998 representations:

(14) means/manner → [x ACT _{<MANNER>}]
(e.g. jog, run, creak, whistle.....)

(15) result (i.e. externally caused) state →
[[x ACT] CAUSE [BECOME [y <RES-STATE>]]]
(e.g. break, dry, melt, open, split,.....)

- In the **syntactic decomposition literature similar syntactic representations** have been provided in terms of roots combining with functional heads, as modifiers or complements (Embick 2004, Harley 2005).

Manner and Result diagnostics

See e.g. Beavers & Koontz-Garboden (2012) for discussion:

(16) **Result diagnostics**

- a. Denial of result
- b. Object deletion
- c. Restricted resultatives

(17) **Manner diagnostics**

- a. Selectional restrictions
- b. Denial of action
- c. Complexity of action

- Additional/related diagnostics are discussed in Levin & Rappaport Hovav (2013, 2014), e.g. whether the instrument is specified or not and whether the result of an action is detectable or not.

Three classes of instrument verbs

- On the basis of their behavior in target- and result-state adjectival participles combined with other manner/result diagnostics, I will identify three classes of instrument-verbs in Greek.

- (18)
- a. **BROOM-verbs** (**Manner** verbs optionally licensing a **Result/weak endstate** component – under coercion).
 - b. **LOCK/SEAL-verbs** (**Ambiguous**: Manner or Result).
 - c. **FILE/POWDER-verbs** (**Manner** + **Result** simultaneously)

A) BROOM-verbs

cf. Levin's (1993: 127) 'wipe verbs', Instrument subclass.

How they are formed

BASED ON A ROOT DENOTING THE INSTRUMENT.

[INSTRUMENT + verbalizer + verbal inflection] denominal verbs.

(19) INSTRUMENT- verbalizer- verbal inflection

- | | | | | |
|----|-------------------|------|------|---|
| a. | SKUP- | -iz- | o | 'clean a surface by means of |
| | 'BROOM' v | | infl | some instrument ' |
| b. | SFUGAR | -iz- | o | 'clean the floor with water and mop ' |
| | 'SPONGE' v | | infl | |
| c. | SIDER- | -on- | o | 'iron' |
| | 'IRON' v | | infl | |

-
- **N.B:** (19b,c) more specified than (19a) w.r.t. the surface it applies to, the instrument, the means. **Other verbs** behaving similarly: *ftiar-iz-o* (shovel), *filtr-ar-o* (filter), *kse-skon-iz-o* (mop/ means subclass), *plen-o* (wash/ means subclass).

Manner verbs: object deletion, denial of result

- They are clearly **manner** verbs w.r.t. object deletion, denial of result, denial of action:

(20) **Object deletion**

○ Janis skup-is-e/ sfugar-is-e/ sider-o-se
The Janis broom-v-3sgPST/ sponge-v-3sgPST/ iron-v-3sgPST
'Janis swept/ swabbed/ ironed'

(21) **Denial of result**

○ Janis molis skupise/ sfugarise to patoma
The Janis just broom-ed/ sponge-ed the floor
ala den iparxi tipota diaforetiko se afto
but not exists nothing different in it
'Janis just swept/swabbed the floor, but there is nothing different about it'

Manner verbs: denial of action

Denial of action

- (22) #O Janis skup-is-e/ sfugar-is-e/ sider-o-se
The Janis broom-v-3sgPST/ sponge-v-3sgPST/ iron-v-3sgPST
alla den kunise to daxtilaki tu
but not moved the little finger his
'John swept/ swabbed/ ironed but he didn't move a muscle'

Result component in target state participles

- In my native Greek, they tolerate **still** rather easily, but clearly **under coercion**.
- In the presence of **still**, the participles in (23) on the next slide are understood to mean “**clean**”, “**un-wrinkled**”, i.e. they are licensed under **weak endstate** (Wittek 2002) interpretations of ‘wiped’, ‘swabbed’, ‘ironed’.

Examples

- (23) a. To patoma ine **akomi** sfuggar-is-meno/ skup-is-meno
The floor is **still** sponge-*v-meno*/ broom-*v-menop*
'The floor is still swabbed/ wiped (i.e. **wet/ clean**)'
- b. To pukamiso ine **akomi** sideromeno
The shirt is **still** iron-*v-meno*
'The shirt is still ironed (i.e. **unwrinkled**)'
- Greek native speakers **differ in how liberal** they are with this type of coercion.

Target state participles: result entailed

- In the presence of “still”, denying the weak endstate leads to a contradiction:
- **Weak endstate entailed. Contradictions.**

- (24)a. #To patoma ine **akomi sfuggarismeno/skupismeno** ki omos ine stegno/vromiko
The floor is still sponge-*v-meno*/ broom-*v-meno* and however is dry/dirty
'The floor is still swabbed/wiped but nevertheless dry/dirty'
- b. #To pukamiso ine **akomi sideromeno** ki omos ine tsalakomeno
The shirt is (still) iron-*meno* and however is wrinkled
'The shirt is still ironed but nevertheless wrinkled'

Manner also entailed

The manner/instrument component cannot be denied.

- (25)a. #To patoma ine **akomi** sfuggarismeno **alla den xrisimopithike nero/sfuggaristra**

The floor is still sponge-*meno* but not was used water/ a sponge
'The floor is still swabbed but water/a sponge was not used'

- b. #To pukamiso ine **akomi** sideromeno **alla den xrisimopiithike sidero**

The shirt is (still) iron-*meno* but not was used iron
'The shirt is still ironed but an iron was not used'

Manner & Result added in context

- Levin and Rappaport Hovav argue for the hypothesis in (26), possibly deriving from the constraint in (27):

(26) **Manner/ Result Complementarity**

Manner and result meaning components are in complementary distribution: a verb lexicalizes only one.

(27) **The lexicalization constraint**

A root can only be associated with one primitive predicate in an event schema, as either an argument or a modifier (Rappaport Hovav and Levin 2010)

- **The broom-data in (24) & (25) show no manner-result complementarity in target state** contexts, challenging (26). Neither result nor manner can be denied, i.e. the ‘canonical’ manner meaning is retained **and** a result component must be added. The data do not challenge the lexicalization constraint in (27), because crucially the weak endstate is not named by the root and it is filled in pragmatically.

Resultant state participles: Voice and no weak endstate

Voice: forces the manner interpretation and makes ‘still’ ungrammatical

Adding the **agent-oriented adverb epaggelmatika** ‘professionally’, which is licensed by **Voice**, makes “**still**” ungrammatical:

Voice-oriented adverbs force resultant state interpretation (‘still’ impossible)

- (28) a. To patoma ine (***akoma**) sfuggarismeno epaggelmatika
The floor is (still) sponge-meno professionally
‘*The floor is still professionally swabbed’
- b. To pukamiso ine (***akoma**) sideromeno epaggelmatika
The shirt is (still) iron-meno professionally
‘*The shirt is still professionally ironed’

No coercion

- **Voice** → *manner and no coercion (no contradictions when result is denied)*:

(29) a. To patoma ine **sfuggarismeno** epaggelmatika **ki omos ine vromiko**

The floor is sponge-*meno* professionally and however is dirty
'The floor is professionally swabbed but nevertheless dirty'

b. To pukamiso ine **sideromeno** epaggelmatika **ki omos ine tsalakomeno**

The shirt is iron-*meno* professionally and however is wrinkled
'The shirt is professionally ironed but nevertheless wrinkled'

- Note that, pragmatically, a professionally swabbed floor, a professionally ironed shirt is expected to be clean/tight. And yet, the result can be denied.
- I conclude that resultant state participles retain the basic sense of the verb, a manner sense.

Summary

- **Broom verbs:**
- Allowed in target state participles under **coercion**.
- **Weak endstate** cannot be denied.
- **Instrument** cannot be denied (because it is named by the root).
- Retain their **conventional meaning** in resultant state participles.
- No **weak endstate** present. Result can be denied even if pragmatically favored (as with the agent-oriented adverb “professionally”).

B) LOCK/SEAL-verbs

- The part denoting the instrument is underlined:
- agirono 'anchor', mantalono 'bolt', kubono 'button', alisodeno 'chain/manacle', karfitsono 'clip', peduklono 'fetter', kolao 'glue', agistrono 'hitch/hook', vidono 'screw', sfragizo 'seal', klidono 'lock', agirovolo 'moor', fimono 'muzzle', karfono 'nail', blastrono 'blaster', palukono 'peg', vidono 'screw'.
- cf. Levin's (1993: 162) 'tape-verbs'.

How they are formed

BASED ON A ROOT DENOTING THE INSTRUMENT.

[INSTRUMENT + verbalizer + verbal inflection] denominal verbs.

(30) INSTRUMENT- verbalizer- verbal inflection

- | | | | | |
|----|----------|----------|------|--------------------------------------|
| a. | KUB- | -on- | o | 'close using a device (button, zip)/ |
| | 'BUTTON' | v | infl | combine using buttons' |
| b. | SFRAG | -iz- | o | 'close tight using tape/stamp etc./ |
| | 'STAMP' | v | infl | put a stamp on paper |
| c. | VIID- | -on- | o | 'screw' |
| | 'SCREW' | v | infl | |
| d. | KOL- | a- | o | 'glue' |
| | 'GLUE' | v | infl | |
| e. | KLID- | on- | o | 'lock' |
| | 'KEY' | v | infl | |

Polysemy

- Equally easy target- and resultant-state participles/ no coercion/ no inter-speaker variation:

(31) **Target state**

a. To panteloni ine **akoma** kumb-o-meno
The trousers is still buttoned

Resultant state

b. To panteloni ine **epaggelmatika** kumb-o-meno
The trousers is professionally buttoned

(32) **Target state**

a. To kuti ine **akoma** sfrag-iz-meno
The box is still sealed

Resultant state

b. To kuti ine **epaggelmatika** sfrag-iz-meno
The box is professionally sealed

Polysemy

(33)

Target state

- a. I porta ine **akoma** klid-o-meni
The door is still locked

Resultant state

- b. To thisavrofilakio ine **epaggelmatika** klid-o-meno
The safe is professionally locked

Manner verbs in English

- Levin (1993) characterizes their English translation equivalents as **manner verbs**:

'...The meanings of these verbs, like those of the 'shake' verbs but unlike those of the 'mix' verbs, relate to the manner/means in which things are combined, rather than the result of combining'

- They qualify as manner verbs in English, in that they license **resultatives** (Levin 1993: 163, ex. (336)):

(34) Linda taped the box shut

Manner or Result in Greek? Two subclasses

Agentivity restrictions point to the existence of two subclasses in Greek:

Agentivity restrictions → Two sub-classes: manner and result subclass

- Some verbs impose **selection restrictions** on their subjects (agentivity) and are incompatible with causers (**suggestive for 'manner' behavior**), others not (**suggestive for 'result' behavior**).

Agentivity restrictions: two subclasses

MANNER SUBCLASS: button, lock, screw

- (35) a. O Janis / *i piesi kubose to panteloni
 The Janis/ *the pressure buttoned the trousers
- b. O Janis/ *I skuria/*o vraxos klidose tin porta
 The Janis/ *rust/ *the rock locked the door
- c. O Janis/ *i piesi vidose to kapaki
 The Janis/*the pressure screwed the lid

RESULT SUBCLASS: seal, glue

- (36) a. O Janis/ o vraxos/ i piesi sfragise tin isodo
 The Janis/ the rock/the pressure sealed the entrance
- b. O Janis/ i piesi kolise ta komatia
 The Janis/ the pressure glued the pieces (together)

Manner shifted to Result

- The manner subclass shows 'result' behavior in non-typical transitive contexts
- **MANNER IS LOST IN THEIR RESULT USE, THEY MEAN 'CLOSED/ ATTACHED/ UNMOVED':**

i) Figurative uses meaning 'closed' / 'unmoved':

(37) Meta apo polles diapragnatefsis i simfonia epitelus
kubose/klidose

After many negotiations the agreement finally
buttoned/locked

(38) Apo to proi, ine **vidomenos** stin karekla ke dulevi sklira
Since this morning, he is screwed on the chair and works hard

Manner shifted to Result

iii) **Manner adverbs** are **resultative adverbs** in target state contexts:

- (39) a. To palto tu ine akoma **sfixta** kubomeno
The coat his is still tightly buttoned
- b. To domatio ine akoma **ermitika** klidomeno
The room is still hermetically locked

Manner adverbs modify the process in resultant state contexts:

- (40) a. To palto tu ine **prosektika** kubomeno
The coat his is carefully buttoned
- b. To thisavrofilakio ine **epaggelmatika** klidomeno
The safe is professionally locked

Causative alternation

- **NOTE THAT all these verbs enter the causative alternation, even the basic manner verbs, indicative for Result behavior:**

- (41)
- | | | |
|----|--|---------------|
| a. | To panteloni | kubose |
| | The trousers | buttoned |
| | 'The trousers closed by means of a devise (button, zip etc.) | |
| b. | To kapaki | vidose |
| | The lid | screwed |
| c. | I porta | klidose |
| | The door | locked |
| d. | I isodos | sfragise |
| | The entrance | sealed |
| e. | I etiketa | kolise |
| | The label | glued/sticked |

For-modification accesses target state, not process

- **For-modification** is possible only if the target state is accessed (Pinon 1999, Kratzer 2000), not if the process is accessed (same as (42a) with all verbs, even with lock, and also screw, glue, seal).

(42) a. O Janis kumbose to pukamiso gia 10 lepta
Janis buttoned the shirt for 10 minutes (the shirt was buttoned for 10 minutes)

vs.

b. Janis siderose to pukamiso gia 10 lepta [WIPE-verbs]
Janis ironed the shirt for 10 minutes
(ironing took 10 minutes)

Kse-prefixation

- All verbs belonging to this class, **permit prefixation with the morpheme *kse***- which reverses the action (or perhaps, the **end-state** of the action) expressed by the verb:

(43) a. O Janis **kse**-kumbose to pukamiso
The Janis un-buttoned the shirt
'Janis unbuttoned the shirt'

b. O Janis **kse**-vidose to kapaki/ **kse**-kapakose to doxio
The Janis un-screwed the lid/ un-cover (lit.lid)-ed the vessel
'Janis unscrewed the lid/ uncovered the vessel'

c. O Janis **kse**-klidose/**kse**-mantalose tin porta
The Janis un-locked/removed the lock the door
'Janis unlocked the door.'

More *Kse*-prefixation examples

- (44) a. O Janis **kse**-gantzose ton pinaka
The Janis unhooked the painting
'John unhooked the painting'
- b. O Janis **kse**-kolise ta komatia
The Janis un-glued the pieces
'Janis unglued the pieces'
- c. O Janis **kse**-sfragise to grama
The Janis un-sealed the letter
'Janis unsealed the letter'

vs.

- d. *O Janis **kse**-siderose to pukamiso
The Janis un-ironed the shirt

More on *kse*-prefixation and its implications

- **Kse**-prefixation is a highly productive process in Greek:

(45) ***kse-parkaro*** ‘unpark’, ***kse-diplono*** ‘unfold’, ***kse-fuskono*** ‘deflate’, ***kse-pagono*** ‘defrost’, ***kse-strono*** ‘unmake (bed)/ clear (table)’, ***kse-skuriazō*** ‘remove the rust’, ***kse-rizonō*** ‘uproot’, ***kse-nikiazo*** ‘terminate a lease’, ***kse-berdevo/ kse-bleko*** ‘untangle/ unravel’, ***kse-tiligo*** ‘unroll/ unwrap’, ***kse-fortono*** ‘unload’, ***kse-fortizo*** ‘discharge’, ***kse-vromizo*** ‘clean (lit. un-dirty)’, ***kse-matiazō*** ‘remove from the spell of the evil eye’, ***kse-maskarevo*** ‘unmask’, ***kse-methao*** ‘become sober’, ***kse-idrono*** ‘unsweat/dry’, ***kse-laspono*** ‘remove the mud’.

- All of the verbs in (45) and all verbs to which ***kse***-attaches form participles that can be modified by ‘still’. Thus, the verbs in (43) and (44) qualify as result verbs with respect to *kse*-prefixation, i.e. they have a **result sense**.
- I conclude that these verbs show a **manner-result ambiguity**.

Summary

- **Lock verbs:**
- Polysemy: manner or result verbs, depending on the context.
- On the one hand, agentivity restrictions point to the presence of Voice; on the other hand, they alternate, for-modification accesses the target state and *kse*-prefixation treats them like target state verbs.

C) FILE/POWDER-verbs

- Denominal verbs based on instrument roots are *limaro* 'file', *poudraro* 'powder', *vourtsizo* 'brush', *xtenizo* 'comb', *psalidizo* 'clip/trim', *sapounizo* 'lather', i.e. brooming/body-care verbs.
- Cf. Levin's (1993: 229) 'braid-verbs'. The cases I discuss are not construed as creation verbs, there is no implicit individual created.

How they are formed

BASED ON A ROOT DENOTING THE INSTRUMENT.

[INSTRUMENT + verbalizer + verbal inflection] denominal verbs.

(46)	INSTRUMENT-	verbalizer-	verbal inflection	
a.	LIM- 'FILE'	-ar- v	o infl	'file (nails)'
b.	PUDR 'POWDER'	-ar- v	o infl	'powder' (nose/face)
c.	VURTS- 'BRUSH'	-iz- v	o infl	'brush (hair/teeth)'
d.	XTEN- 'COMB'	-iz- v	o infl	'comb (hair)'
e.	PSALID- 'SCISSORS'	-iz- v	o infl	'trim/clip' (hair/ beard)
f.	SAPUN- SOAP	-iz- v	o infl	soap/lather (body/hair)

How they are formed

- In informal speech, it is possible to create verbs belonging to this verb-class by using the foreign root that refers to the instrument (*shampoo* in (47)) or to the whole process (*manicure, permanent/perm, maquillage* in (47)) and create a verb

(47)	INSTRUMENT-	verbalizer-	verbal inflection	
a.	SAMPUAN-	-ar-	o	'shampoo (hair)'
	'SHAMPOO'	v	infl	
b.	MANICUR-	-ar-	o	'manicure' (nails)
	'MANICURE'	v	infl	
c.	PERMANANT-	-ar-	o	'perm (hair)'
	'PERM'	v	infl	
d.	MAKIJ-	-ar-	o	'make up(face)'
	'MAKE UP'	v	infl	

Evidence that they are manner

- They require an agent (selection restrictions):

(48)	a. I Maria/ *i peripiisi/to manicure Mary/*care/*manicure	limarise filed	ta nixia mu my nails
	b. I Maria/ *i peripiisi/to makigiaz Mary/*care/*the maquillage	puđrarise powdered	tin miti mu my nose

- They entail an instrument (and a very specific one)
- The denial of action test yields contradictions [Denial of result, less clear, unlike wipe verbs]:

(49) I Maria	limarise	ta nixia mu	#alla den kunise to daxtilaki tis
Mary	filed	my nails	#but she didn't move a muscle
(50) I Maria	puđrarise	tin miti mu	#alla den kunise to daxtilaki tis
Mary	powdered	my nose	#but she didn't move a muscle

Evidence that they are manner

- They do not enter the causative alternation:

- (51)
- a. *Ta nixia mu limarisan
My nails filed
 - b. *I miti mu pudrarise
My nose powdered
 - c. *Ta mallia mu vurtisan
My hair brushed

Equally easy target and resultant states

- No feeling that there is coercion:

(52) **Target state**

a. Ta nixia mu ine **akoma** limarismena
My nails are still filed

Resultant state

b. Ta nixia mu ine **epaggelmatika** limarismena
My nails are professionally filed

(53) **Target state**

a. I miti mu ine **akoma** pudrarismeni
My nose is still powdered

Resultant state

b. I miti mu ine **epaggelmatika** pudrarismeni
My nose is professionally powdered

Manner retained in target-state participles

- The manner/instrument properties are **retained in target state environments**. Instrument is entailed, i.e. the following are contradictions:

(54) a. #Ta nixia mu ine **akomi** limarismena, par'olo pu
My nails are still filed even though
den xrisimopiisa lima
I did not use a file

b. #I miti mu ine **akomi** poudrarismeni, par'olo pu
My nose is still powdered even though
den xrisimopiisa poudra
I did not use powder

Like broom-verbs

Ambiguous for- modification

- (55)
- a. ○ Janis limarise ta nixia tu gia mia ora [FILE-verbs]
Janis filed his nails for 1 hour
(filing took 1 hour **or** the nails were
in a tidy state for 1 hour)
 - b. ○ Janis pudrarise tin miti tu gia mia ora
Janis powdered his nose for 1 hour
(powdering took 1 hour **or** the nose was
in a powdered state for 1 hour)

Unlike lock/seal-verbs

Resultatives generally disallowed

- Greek does not allow adjectival resultatives with atelic manner verbs of the *wipe class* like *iron, wipe, swab, hammer* (Giannakidou & Merchant 1999, Horrocks & Stavrou 2003):

(56)	a.	*O Janis siderose to pukamiso	isio/ epipedo
		Janis ironed the shirt	straight/ flat
	b.	*O Janis skupise to patoma	katharo
		Janis wiped the floor	clean

- Greek qualifies as a verb-framed language in all relevant respects (see Folli & Harley 2014 whose detailed description of Italian completely matches Greek).

Resultatives allowed with the file-class

- And yet, adjectival resultatives with *file-verbs* of the type discussed here, i.e. *file, brush, powder, (and dye, cut, trim, soap, etc.)* are licensed:

(57)	a.	○ Janis Janis	limarise filed	to nixi the nail	konto short
	b.	○ Janis Janis	pudrarise powdered	ti miti the nose	aspri white
	c.	?○ Janis Janis	vurtsise brushed	to mali the hair	isio straight

Interim summary

- I tested three classes of instrument verbs in adjectival passive contexts combined with other diagnostics, asking the question of whether they qualify as manner or result. Conclusions so far:
- BROOM-VERBS: Manner. In target state contexts weak endstates are introduced. **Manner verbs (object deletion always licit) to which a result component can be added in contexts forcing it. When this happens, it feels like coercion.**
- LOCK/SEAL-VERBS. Some basic Manner (lock, button, screw) some basic Result (seal, glue). **Both polysemous.**
- FILE/POWDER-verbs. **Manner + Result (always). No coercion sense/ licensing of resultatives, even though Greek is a verb-framed language.**

Analysis

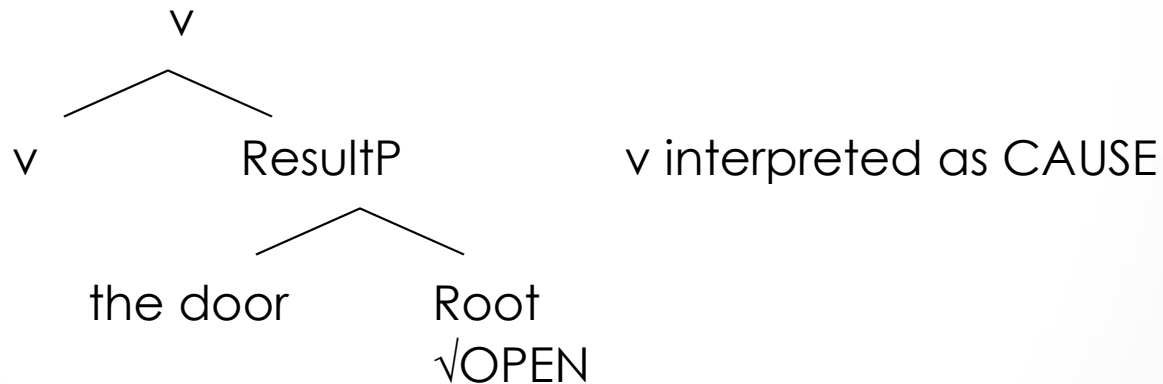
- I assume the verbal decomposition in AAS (2015) and the hypothesis that **roots** are either **complements** of **v** (result verbs) or they **modify v** (manner verbs; Embick 2004, 2009, Harley 2005, AAS 2006, 2015, Folli & Harley 2014).

(58) *Structures for results and manners*

Structure for Results

Results

- a. $\sqrt{\text{RESULT}}$ -type: complement of v; filling in the RESULT position (or, perhaps, modifiers of Res, Follie & Harley 2014).

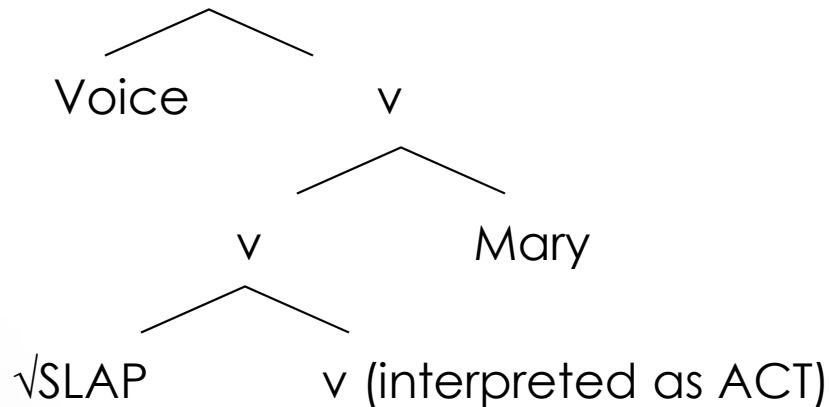


v + Result: a **cause** relation (AAS 2015 for discussion and references).

Structure for Manners

Manners

- **b.** $\sqrt{\text{MANNER/INSTRUMENT}}$ -type: modifier of v and no Result



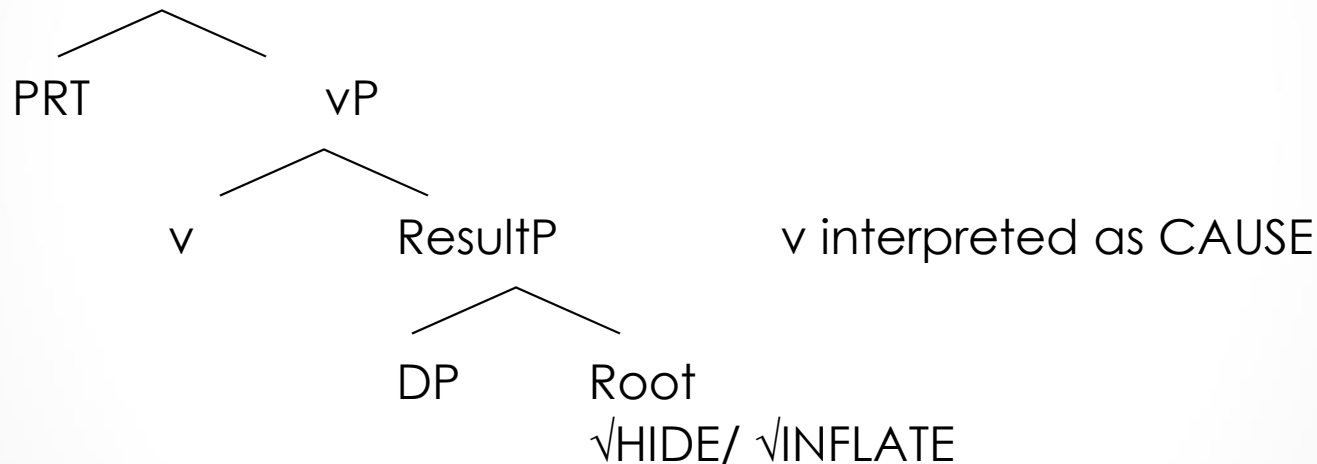
Voice introduces **agentivity** (AAS 2015 for discussion and references).

Structure for target state participles

Target state participles

Target state participles must include results and cannot include Voice (agentivity), i.e. they have the following structure:

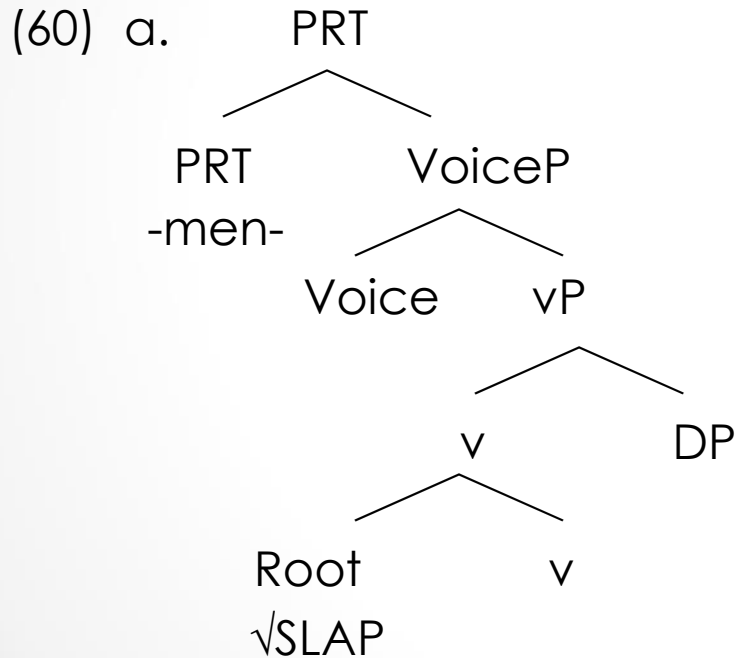
(59)



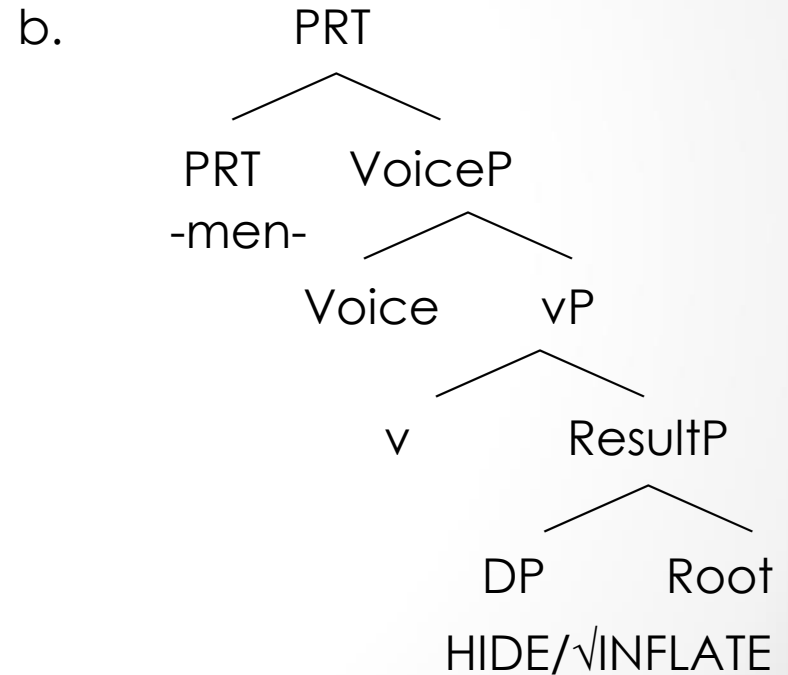
Resultant state participles can be formed by any verb and they can include Voice, e.g. the following are possible structures:

Structures for resultant state participles

With manner verbs



With result verbs



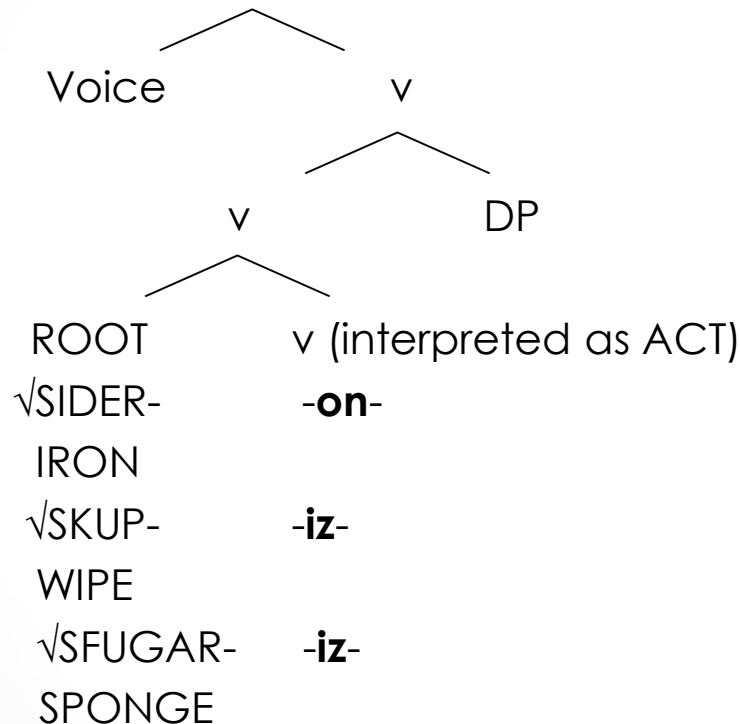
Analysis

**Analysing Instrument Verbs and
the participles they form.
Implications.**

A. *BROOM-type verbs*

√**BROOM-type Roots: modifiers of v. vP selected by Voice:**

(61) a.

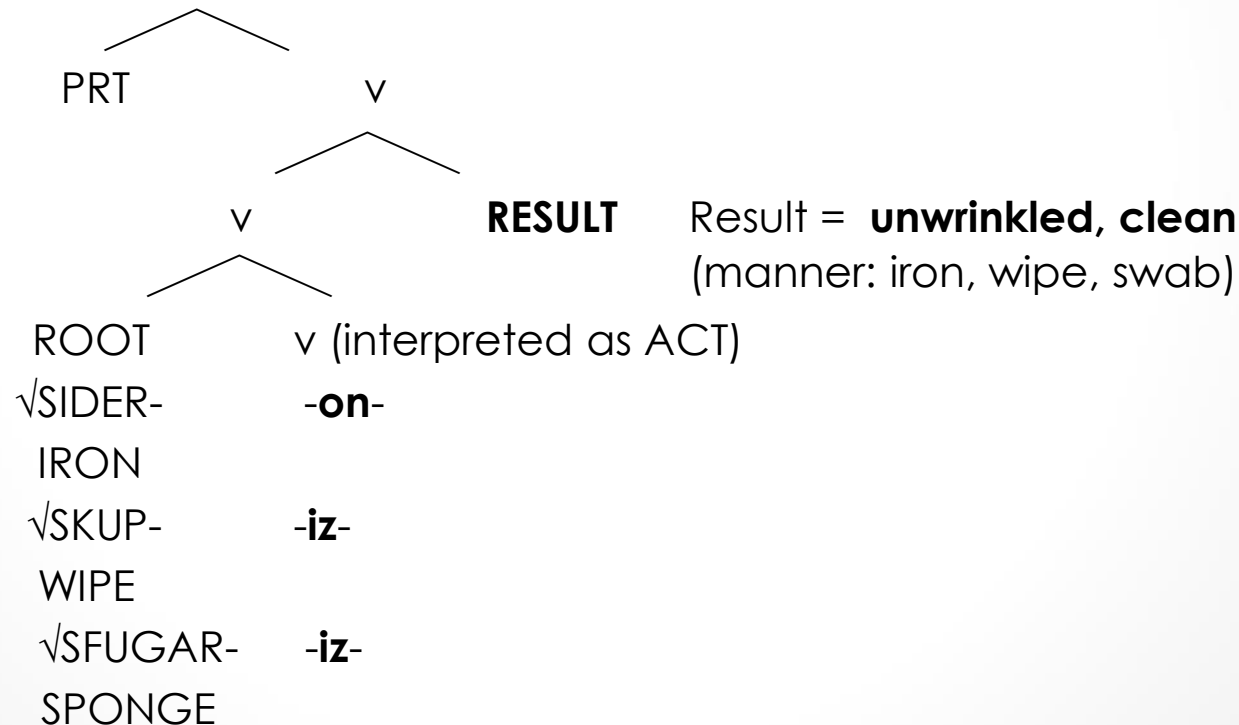


- **Voice** introduces an implicit agent and then combines with Kratzer's (2000) **Perfect operator** yielding **resultant state participles**.

Forming target state participles

- **Target state participles** require coercion of broom-type verbs. This means: $\sqrt{\text{BROOM}}$ -roots can **exceptionally** combine with Result, and **Result = a pragmatically accessible state**.

(61) b.



The Lexicalization Constraint

- **A) Result** in (61b) is **empty** and hence, the Lexicalization Constraint deriving the Manner/Result complementarity is not violated:

Manner/ Result Complementarity

Manner and result meaning components are in complementary distribution: a verb lexicalizes only one.

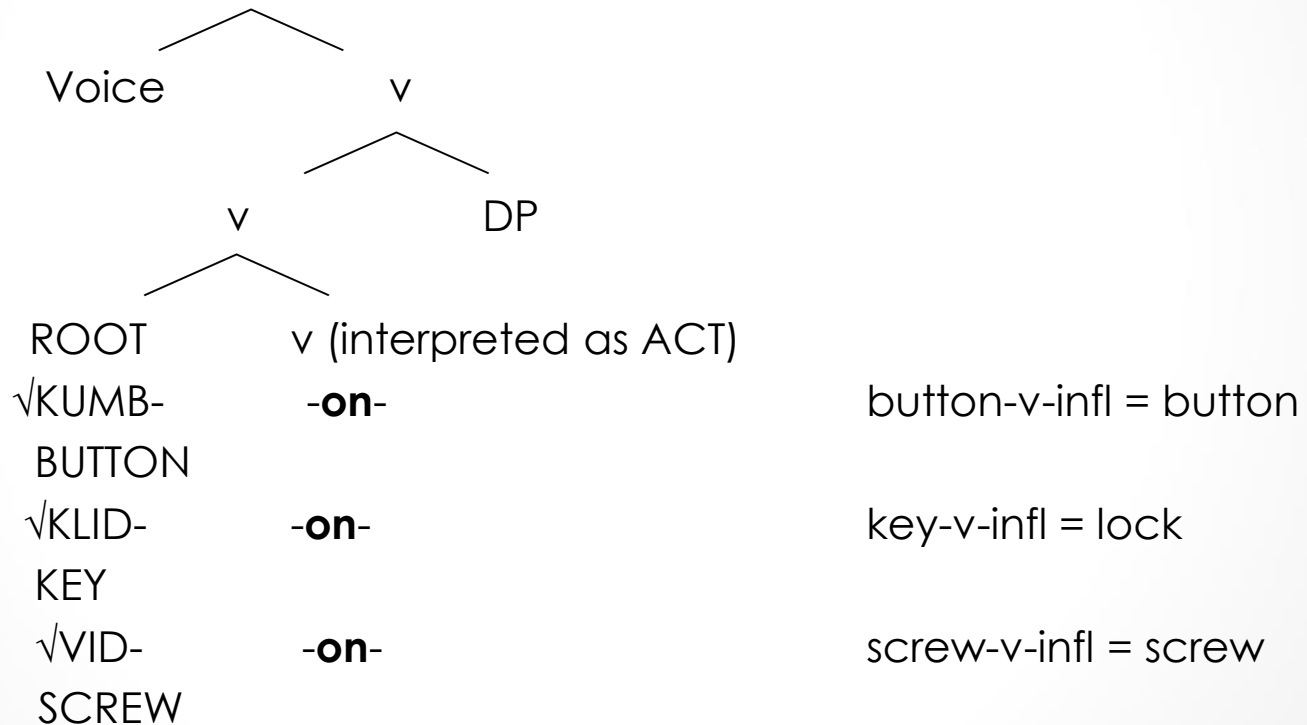
The lexicalization constraint

A root can only be associated with one primitive predicate in an event schema, as either an argument or a modifier (Rappaport Hovav and Levin 2010)

B. LOCK-type verbs. B1

- We saw that they split into two types: (i) manner and (ii) result as their **basic sense**:
- **B.1.** “button”, “lock” and “screw” qualify as basically **manner verbs**. Their basic representation is like IRON:

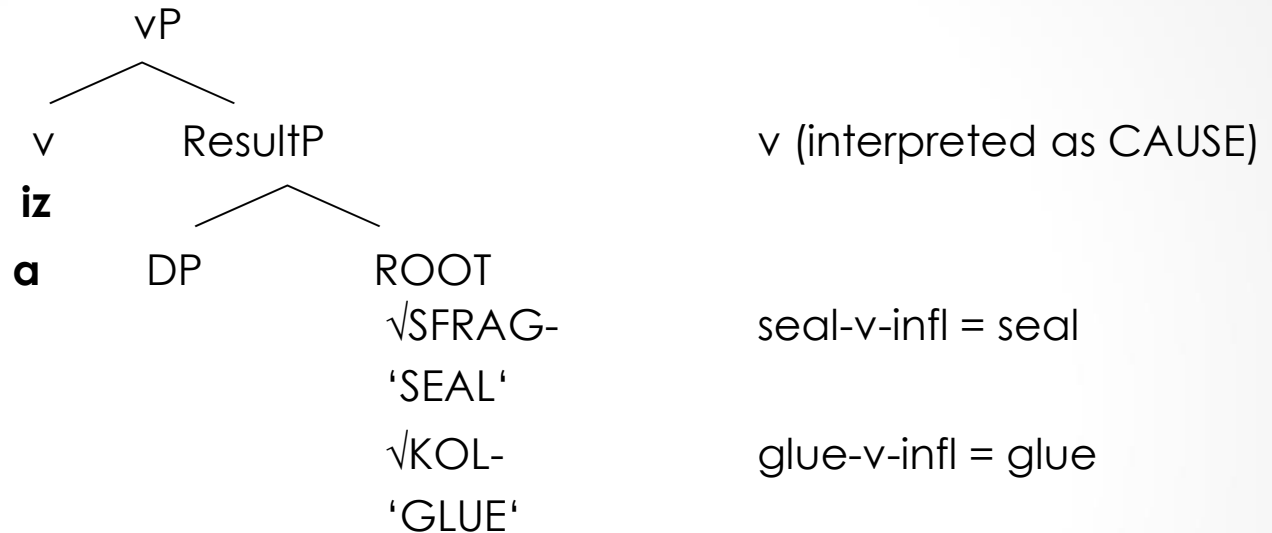
(62)



B. SEAL-type verbs. B2

- B.2. “seal”, “glue” and “screw” behave like **result verbs**:

(63)

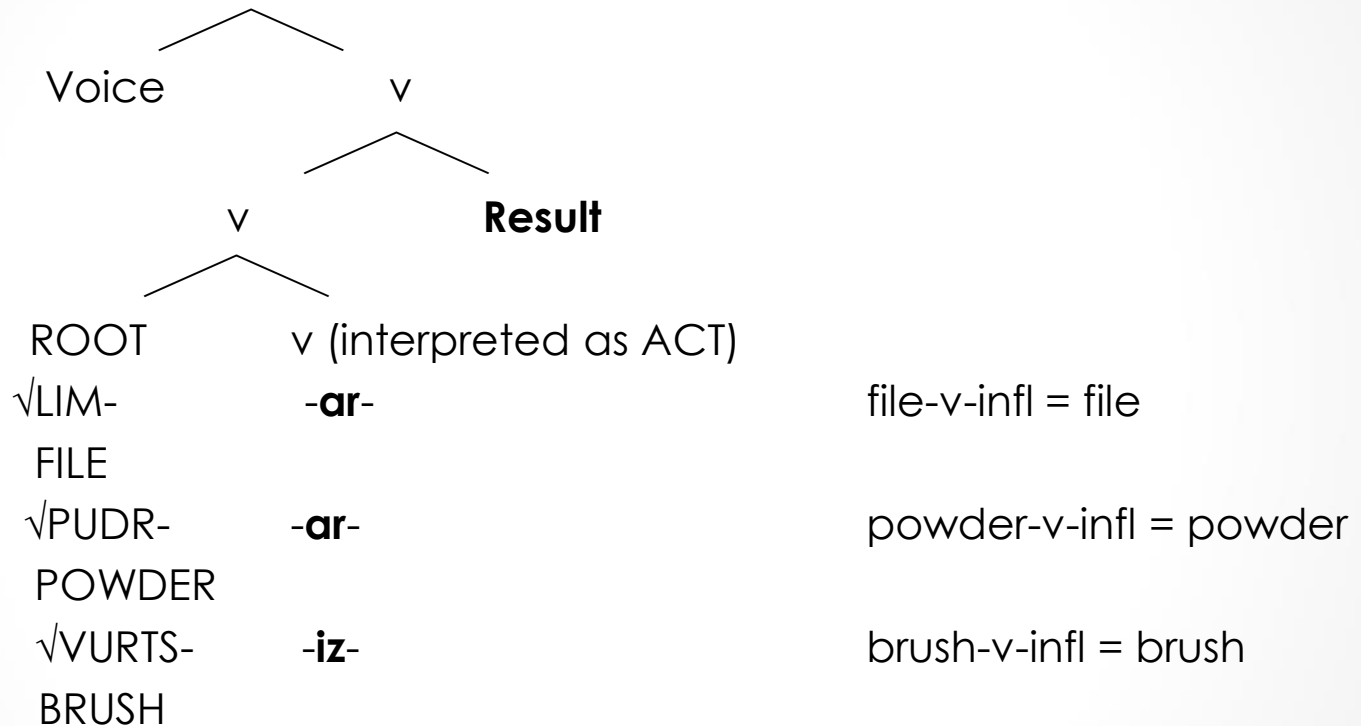


- **Recall** that $\sqrt{\text{KOUMB}}$ / $\sqrt{\text{KLID}}$ / $\sqrt{\text{VID}}$ can also appear in frame (63), (and $\sqrt{\text{SEAL}}$ / $\sqrt{\text{GLUE}}$ can occur in frame (62)), i.e. they are polysemous.

C. FILE-type verbs

- Finally, the majority of FILE-type verbs seem to **always** have the structure (64), i.e. they are **manner + result verbs in all uses**

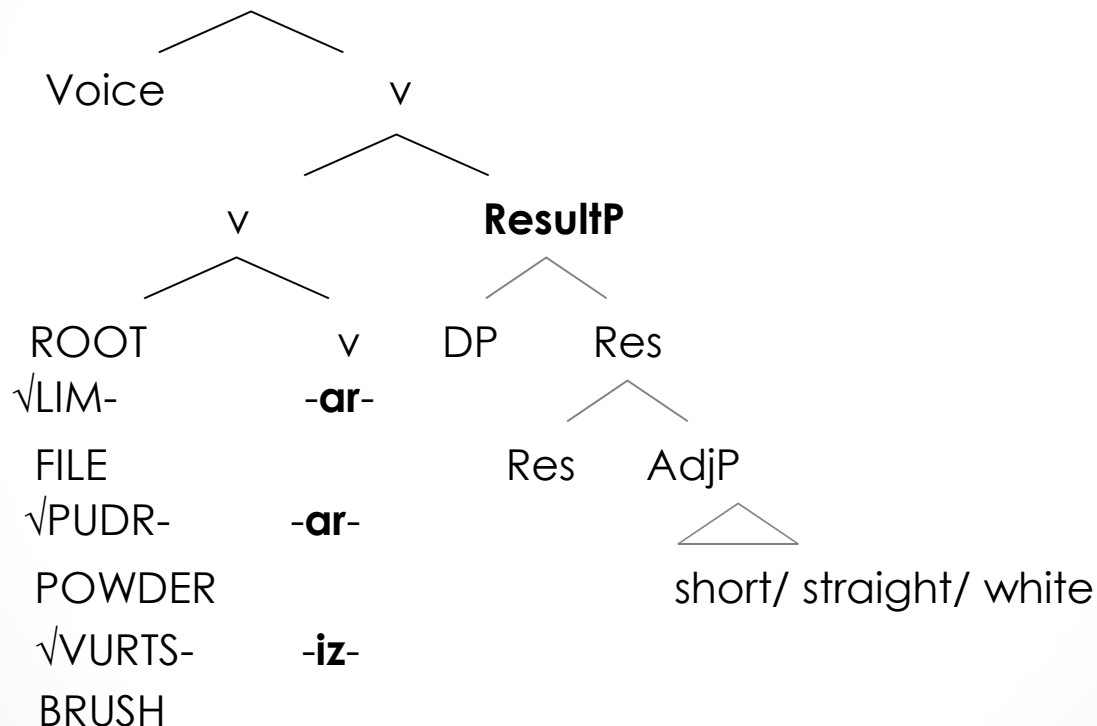
(64)



Double identity

- Being manner verbs, they do not enter the causative alternation, and an instrument is always entailed.
- Being result verbs, they allow for the formation of adjectival resultatives, i.e. they allow for adjectives to modify the empty result, in a representation like the following:

(65)



Summary

- Due to their structural properties (presence vs. absence of Voice, optionality vs. obligatoriness of Result), adjectival participles expressing **resultant states** vs. **target states** in Greek constitute clear contexts bringing out **manner** vs. **result** senses of verbs.
- I investigated three classes of Greek **instrument verbs** in these contexts:
 - BROOM-verbs (class A: manner)
 - LOCK/SEAL-verbs (class B: B1 (basic sense manner) and B2 (basic sense result))
 - FILE/POWDER-verbs (class C: manner + result)
- With the exception of class B2 (glue, seal), they are all manner verbs which nevertheless license a Result component in target states.
- The three classes behave differently in a) how **regular/obligatory** this is and b) whether they are **polysemous** or not.

Questions

- So far, this is the **taxonomy** that emerges.
- But **WHY** do the three verb classes behave this way?
- **Three** questions that need to be answered:
 - **Q1:** Why are broom-verbs manner verbs?
 - **Q2:** Why are lock/seal-verbs ambiguous?
 - **Q3:** Why are file-verbs manner + result?

Towards answering Q1/3

- Considerations that seem relevant:
- **ASPECT: Both** verb classes qualify as **activities/ accomplishments**, they have a process part with duration, distinct from the result part, i.e. the process is **named** by the root, they are **manner** verbs and the root **always** specifies/lexicalizes the manner.
- **NATURE OF RESULT: Broom-verbs** have an **intended** result (clean-ness, unwrinkled-ness, a change in the scalar property of the object wiped/ironed) that can exist **independently** of wiping and ironing. **Coercion** is required because the root cannot name the result.
- **File-verbs** have a result **named** by the specific process (filing, powdering → filed, powdered), i.e. the root names **both** the process and the result, no coercion.
- **COMPLEXITY vs. SIMPLICITY: Broom-verbs** involve a **complex process** (agent/ instrument/ heat-water interacting with the object in a complex way).
- **File-verbs** describe a **simpler process of change** entirely dependent on how the instrument interacts with the object.

Towards answering Q2

- Aspect seems relevant:
- The verbs qualify as **achievements**, i.e. they do not seem to have a process-part.
- This **correlates** with the fact that they combine with causer subjects, they enter the causative alternation and they easily admit figurative/idiomatic interpretations where manner is left completely unspecified.