

ON THE STRUCTURES OF INTRANSITIVE DEGREE ACHIEVEMENTS

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1 INTRODUCTION: SLAVIC MEETS DEGREE ACHIEVEMENTS

Slavic degree achievements are often discussed through the prism of **thematic vowel contrast**: See Medová 2013, Caha et al. 2023 for Czech, Jabłońska 2007 for Polish, Arsenijević & Milosavljević 2021, Milosavljević & Arsenijević 2022, Kovačević et al. 2024 for Serbo-Croatian (SC), Simonović & Mišmaš 2022 for Slovenian, Vyshnevskaya 2025 for Ukrainian, among others

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|-----|----|--|-----------------------------|
| (1) | a. | <i>zjasnět</i> ‘to become clear’/ <i>zjasnit</i> ‘to make clear’ | Czech, Caha et al. 2023 |
| | b. | <i>głupieć</i> ‘to get stupid’/ <i>głupić</i> ‘to make stupid’ | Polish, Jabłońska 2007:109 |
| | c. | <i>veselity</i> ‘to become merrier’/ <i>veselyty</i> ‘to make merrier’ | Ukr., Vyshnevskaya 2025:174 |
| | d. | <i>otupeti</i> ‘to become blunt, numb’/ <i>otupiti</i> ‘to make blunt’ | Serbo-Croatian |
| | e. | <i>rumeneti</i> ‘to become yellow’/ <i>rumeniti</i> ‘to make yellow’ | Slovenian, Marvin 2002:100 |

In all deadjectival verb pairs in (1):

- *e*-verbs are intransitive (and unaccusative)
- *i*-verbs are transitive

Question: what is the derivational relation (if any), between *e*- and *i*-verbs?

Options (primarily from the non-Slavic literature):

1. Ramchand 2008:90–93, Wyngaerd et al. 2022, Caha et al. 2023: the transitive is derived from the intransitive (by the addition of the agent-introducing InitP)
2. Levin & Rappaport Hovav 1994, 1995, Chierchia 2004, Reinhart 2016, etc.: the intransitive is derived from the transitive (via decausativization)
3. Harley 1995, 2008, 2012, Doron 2003a, b: independent derivations from the same stem/root (by two different VoicePs)

Technical issue: the use of the notion of an “anticausative”:

- Koontz-Garboden 2009 +: unaccusative verb derived from an underlying transitive (but not a passive, of course)
- Alexiadou +: verb with CAUSE semantics and lacking an external argument

Slavic: **minimally two underlying structures for deadjectival degree achievements**:

- **transformatives**: **inchoatives** (*e*-verbs) and **mutatives** (imperfective *nu*-verbs)
Not all *e*- and *nu*-verbs are degree achievements! But others do not concern us here
- **causatives** (unmarked) and **decausatives** (*se*-marked intransitives): *i*-verbs
Again, *i*-verbs are not limited to deadjectival degree achievements

Hence we will provide evidence that deadjectival degree achievements need not be limited to only one structure

The structure of the talk:

- why deadjectival *i*-verbs are not derived from their intransitive *e*-counterparts
- how *se*-marked intransitive counterparts of deadjectival *i*-verbs are different
- why deadjectival *e*-verbs are not derived from their *i*-counterparts
- the role of *v* in *e*- and *i*-verbs

Takeaway messages:

- new evidence for two different structures that unaccusatives might have
- the semantics of deadjectival change of state

2 WHY *I*-VERBS ARE NOT CAUSATIVES OF *E*-VERBS

Most of the points below were also made by Vadim Dyachkov, who also brings into the picture non-productive or types of deadjectival *e*- and *i*-verbs

Starting point: *i*-verbs do not have the semantics of causativized *e*-verbs (cf. Dyachkov 2021, 2023 for Russian):

- (2) a. crveneti 'to become red(der), blush', crveniti 'to color red' Serbo-Croatian
b. crneti 'to become tanned', crniti 'to color black'
c. beleti 'to turn white(r); be white', beliti 'to whitewash, color white' Russian
d. tolsteti 'to become fat(ter)', tolstiti 'to make look fat(ter)'

Different processes can be evoked by *e*- and *i*-verbs:

- (3) a. Ora je crnila obrve.
Ora be.3SG black-TH_I.PTCP.FSG eyebrows
'Ora was blackening her eyebrows.'
b. Ora je crnela (od sunca).
Ora be.3SG black-TH_E.PTCP.FSG from sun
'Ora was becoming tanned.'
c. *Sunce je crnilo Oru.
sun be.3SG black-TH_I.PTCP.NSG Ora.ACC

Serbo-Croatian *i*-verbs are typically agentive rather than merely causative (i.e., Natural Force causes are often dispreferred)

NB: *e*-verbs are non-productive in modern Serbo-Croatian, so focus on Russian, where both *e*- and *i*-verbs are.

Possible objection: semantic drift

- plausible for Serbo-Croatian color *e*-verbs, with their very specialized meanings
- less so for *i*-verbs: they do not precisely mean 'make X acquire the relevant color'

In other domains, too, *i*-verbs often do not describe the same change as *e*-verbs:

- (4) a. Ot tainstvennogo lekarstva on molodel/pomolodel/*omolodel. Russian
from mysterious medicine he Ø/PO-/O-young.TH_E.PAST.MSG
'He was becoming/became young(er) from the mysterious drug.'
b. Tainstvennoe lekarstvo molodilo/omolodilo/*pomolodilo ego.
mysterious medicine Ø/PO-/O-young.TH_E.PAST.MSG him
'The mysterious drug rejuvenated him.'
c. Korotkaja strižka molodila/*omolodila/*pomolodila ego.
short haircut Ø/PO-/O-young.TH_E.PAST.FSG him
'Short hair was making him look younger.'

And sometimes the meanings are very different:

Such pairs almost never involve two degree achievements. (5c) is an activity (one of Dyachkov's behavior verbs), other options include simple statives (*pestriti* 'to dazzle' (impers. only) or homonymous roots (*praviti* 'to correct')

- (5) a. Ruki Mariny grubeli/ogrubeli/zagrubeli ot raboty. Russian
hands Marina.GEN Ø/O/ZA.rough.TH_E.PAST.PL from work
'Marina's hands coarsened from work.'
b. *Rabota ogrubila/zagrubila/grubila ruki Mariny.
work O/ZA/Ø.rough.TH_E.PAST.PL hands.ACC Marina.GEN

- c. Marina (na)grubila načal'nice.
Marina na.rough.TH_I.PAST.FSG boss.DAT
'Marina was rude to her boss.'

Note that the perfectivizing prefixes are not the same, and this is not accidental.

2.1 Perfectivizing prefixes

The default perfectivizing prefixes are not the same for *e*- and *i*-verbs (with caveats):

Cf. Dyachkov 2021, 2023 for Russian

- in Russian, the preferred prefix choices for deadjectival *e*-verbs (maximally 170 in Zaliznjak) are *po*- (77), *o*-/*ob*- (64), *za*- (51) (with ca. 20 intersections for any two)
- for their *i*-counterparts (63, manual): *ob*- (24), *po*- (9–11), *za*- (4–5)

If a Russian deadjectival *i*-verb perfectivizes with the prefix *po*- or *ob*-, its *e*-counterpart usually does too

The opposite is not true:

- (6) a. (o/pro/*vy)trezveti 'to sober up' Russian
b. otrezvit 'to sober up (fig.)', (protrezvit/vytrezvit 'to sober up', *trezvit
- (7) a. (po)redeti 'to become sparse, rare, not dense'
b. proredit/izredit 'to thin out', razredit 'to thin out; rarefy', *redit

For Serbo-Croatian deadjectival *i*-verbs the most common prefix is *na*-, while for *e*-verbs it is *po*- (modulo language change):

For *i*-verbs the prefix *na*- 'on' can be taken to naturally reflect their default interpretation of surface change only; the prefix *po*- 'over' also has the interpretation 'a bit', but with *e*-verbs, both in Russian and in Serbo-Croatian, it is simply perfectivizing (though see section 6.2)

- (8) a. Ora je nacnila obrve. Serbo-Croatian
Ora be.3SG NA.black-TH_I.PTCP.FSG eyebrows
'Ora (has) blackened her eyebrows.'
- b. Ora je pocnela (od sunca).
Ora be.3SG PO.black-TH_E.PTCP.FSG from sun
'Ora got tanned.'

If *i*-verbs are causatives of *e*-verbs, this variation in prefix choice is unexpected

The semantic connection between *e*-verbs and their corresponding *i*-verbs is non-transparent

The problem is, many *i*-verbs cannot be used without a prefix

- Most deadjectival *e*-verbs start out unprefixated (though there are exceptions)
- Most deadjectival *i*-verbs are ungrammatical if unprefixated

Observation also made for Russian by Dyachkov 2018:94

For Russian, computed on the basis of Zaliznjak 2010:

- < 9% *e*-verbs require a prefix
- 50% of their *i*-counterparts are obligatorily prefixed (cf.)

And a prefix can (perhaps must) add lexical semantics

2.2 Lexical prefixes and specialized perfectives

Prefixes may change the lexical meaning of a verb:

- (9) a. (po)deševeti ‘to become cheaper’ Russian
 b. udeševiti ‘to make cheaper’, prodeševiti ‘to make a bad bargain’ (*deševiti)
 (10) a. (po)crneti ‘to get tanned’ Serbo-Croatian
 b. nacrniti ‘to color black’, ocrniti ‘to denigrate, besmirch, defame’ (??crniti)

Filip 2000, a.o.: prefixes have lexical import even when they are the default ones

Whatever the correct analysis is, the prefix facts do not support a derivational link between *e*- and *i*-verbs

2.3 Missing counterparts

Most *e*-verbs have no corresponding *i*-verbs (cf. Dyachkov 2018:107–108, 2023):

- (11) a. (po/ob)liseti ‘to become bald(er)’_{PFV/IPFV}, *lisiti Russian
 b. zaxireti/xireti ‘to grow sickly, wither’_{PFV/IPFV}, *xiriti
 c. ržaveti ‘to turn rusty(r)’, *ržaviti

Levin & Rappaport Hovav 1994: “The proposed analysis of externally caused verbs predicts that there should be no externally caused verbs without a transitive variant” (p.95)

Not all *i*-verbs have *e*-variants either, but this is not unexpected:

- (12) a. bodriti ‘to invigorate, encourage’ (from bodrij ‘cheerful, brisk’), *bodreti
 b. uglubiti ‘to make deeper’_{PFV} (from glubokij ‘deep’), *glubeti/*uglubet

But transitive deadjectival *i*-verbs with the semantics of degree achievements may have (non-passive, non-reflexive) *se*-marked unaccusative counterparts

3 DECAUSATIVES

Most deadjectival *i*-causatives have **explicitly marked unaccusative counterparts**, which are productive and transparent:

- (13) a. Tristram je osušio cveće. Serbo-Croatian
 Tristram AUX dry.PFV.PTCP.MSG flowers.COLL.NSG
 ‘Tristram dried up the flowers.’
 b. Cveće se osušilo.
 flower.COLL.NSG SE dry.PFV.PTCP.NSG
 ‘The flowers dried up’
 (14) a. Traktor rasširil dorogu. Russian
 tractor widen.PFV.PAST.MSG road.ACC
 ‘The tractor widened the road.’
 b. Doroga rasširilasj.
 road.NOM widen.PFV.PAST.FSG.SE
 ‘The road widened.’

The *se*-morph also marks middles, passives, reflexives, impersonals, etc.

Cf. Embick 1997, for Greek: non-active morphology marks the suppression of the external argument

This is the only way to derive intransitive deadjectival degree achievements for comparative-based verbs (except in Ukrainian, see Vyshnevskaya 2025):

- (15) a. xoroš-ij ‘good’ → **luč-še** ‘better’ Russian, Bobaljik 2012:188
b. u-**lučš**-itⁱ(sja) ‘to make/become better’
c. xoroš-etⁱ ‘to become prettier’
- (16) a. dobar ‘good’ → **bol**-ji ‘better.MSG’ Serbo-Croatian, Bobaljik 2012:195
b. po-**bolj**-š-ati (se) ‘to make/become good’
c. pro-dobr-iti (se) ‘to make/become (morally) good’

Hence in Slavic there are two **morphologically distinct** ways of deriving deadjectival degree achievements:

There’s also *nu*-verbs, aka mutatives, but these are unproductive throughout Slavic and mostly non-deadjectival

- *e*-verbs, aka inchoatives
- *i*-verbs, causatives and decausatives

Unlike in Greek, in Slavic inchoatives and causatives have different thematic suffixes

And there can be triplets, obviously with nuances in interpretation:

Apparently, as in Greek (Alexiadou 2010:185, fn.187)

- (17) a. Nož je o-tup-e-o od upotrebe. Serbo-Croatian, inchoative
knife is PFX-blunt-THE-PAST.MSG from use
‘The knife got blunt from use.’
- b. Nož se o-tup-i-o od upotrebe. decausative
knife SE PFX-blunt-THI-PTCP.MSG from use
‘The knife got blunt from use.’
- c. O-tup-e-l-a sam od bola. inchoative
PFX-blunt-THE-PTCP-FSG am from pain
‘I became numb from pain.’
- d. *O-tup-i-l-a sam (*se) od bola. decausative
PFX-blunt-THI-PTCP-FSG am SE from pain
- (18) a. vesel- ‘joyful’ Russian
b. (po)veseleti ‘to grow more joyful’_{IPFV/PFV}, *razveseleti inchoative
c. veseliti ‘to make merry, amuse, cheer’_{IPFV} causative
d. veseliti’sja ‘to amuse oneself, have fun’_{IPFV} decausative
e. poveseliti ‘to make merry, amuse’_{PFV} causative
f. poveseliti’sja ‘to amuse oneself, have fun’_{PFV} decausative
g. razveseliti ‘to cheer up’_{PFV} causative
h. razveseliti’sja ‘to cheer up’_{PFV} decausative

Non-trivial assumptions would need to be made to derive (18g–h) from (18b)

Given that *raz-* is a lexical prefix here (creating a “specialized perfective” in the terms of Janda & Nessel 2010), it must be merged low in the structure (as a sister to V in many recent frameworks, see Ramchand 2004, Svenonius 2004a, b, Romanova 2006, etc.), which obviously places it lower than the putative causative *v*

Not every adjectival causative gives rise to decausative, but when they do, the semantic link is transparent

4 WHY *E*-VERBS ARE NOT DECAUSATIVES OF *I*-VERBS

Possibility: there are more than one type of decausativization, with *se*-marking and with the *e*-theme suffix

Problem with this hypothesis: the lack of semantic transparency for transformatives in contrast to decausatives

The unaccusativity of transformatives and decausatives is not identical

4.1 Serbo-Croatian participles

Hoekstra 1984, Ackema & Schoorlemmer 1995, Aljović 2000, Marelj 2004, a.o.: prenominal past participles as an unaccusativity diagnostic:

- (19) a. the dining guests/*the dined guests (unergative)
 b. the falling guests/the fallen guests (unaccusative)
 c. broken window, written book, eaten meal etc. (transitive)

The prenominal past participle can only track the internal argument:

- unergative: only the present participle can be used as a prenominal modifier
- unaccusative: both present and past participles can be so used
- transitive: both (with different interpretation)

Serbo-Croatian: different past-participle forms for transitives and unaccusatives:

- uaccusatives: *l*-participles
- transitives: *n*-participles
- unergatives: no past participle

- (20) a. pristig-*l*-i gosti (unaccusative) Aljović 2000:5
 arrive-PTCP-MPL guests
 ‘arrived guests’
- b. *skoč-*i-l-i*/*skoč-*en-i* dječaci (unergative) Aljović 2000:5
 jump-TH_I-PTCP-MPL boys
- c. razbij-*en-i*/*razbi-*l-i* prozor (transitive)
 break-PTCP-MSG window
 ‘broken window’

Hence Serbo-Croatian tests not only for the status of the argument (internal vs. external), but also for the syntactic structure it is a part of:

- *l*-participles are for the internal arguments of one-place verbs
- *n*-participles are for the infernal argument of transitive verbs

Only the *l*-participle is grammatical with the deadjectival *e*-verbs:

- (21) a. po-rumen-*e-l-i*/*porumenj-*e-n-i* obrazi
 PO-blush-THE-PTCP-MPL cheeks
 ‘cheeks that have blushed’
- b. po-žut-*e-l-o*/*požuće-*n-o* lišće
 PO-yellow-THE-PTCP-MPL leaves.COLL
 ‘leaves that have yellowed’

- c. o-tup-e-I-i/*otuplj-e-**n**-i čovek
 O-blunt-TH_E-PTCP-MPL person
 ‘numbed person’

This implies that deadjectival *e*-verbs are one-place unaccusatives in Serbo-Croatian

On the other hand, deadjectival *i*-verbs allow only for **n**-participles to be used prenominally:

- (22) a. na-rumenj-en-i/*na-rumen-i-l-i obrazi
 NA-blush.TH_I-PTCP-MPL cheeks
 ‘cheeks that had been rouged’
 b. o-tupl-j-**en**-i/(o-tup-e-I-i)/*o-tup-i-l-i nož
 O-blunt-TH_I-PTCP-MPL/(O-blunt-TH_E-PTCP-MPL)/O-blunt-TH_I-PTCP-MPL knife
 ‘blunt/dulled knife’

No comparable argument can be constructed for Russian because it has active past participles, which always track the nominative subject

Other syntactic unaccusativity tests do not distinguish derived and underived unaccusatives

4.2 Narrower interpretation

Levin & Rappaport Hovav 1994: intransitive variants of alternating verbs may have a narrower interpretation than the transitive ones:

- (23) a. Antonia broke the vase/the window/the bowl/the radio/the toaster.
 b. The vase/the window/the bowl/the radio/the toaster broke.
 (24) a. He broke his promise/the contract/the world record.
 b. *His promise/the contract/the world record broke.

For (some) deadjectival *i*-verbs the decausative has a narrower interpretation than the base:

- (25) a. Vasja okruglil glaza/drobi.
 Vasya O.round.TH_I.PAST.MSG.SE eyes/fraction
 ‘Vasya rounded his eyes/the fraction.’
 b. Vasily glaza okruglilisj.
 Vasya’s eyes O.round.TH_I.PAST.PL.SE
 ‘Vasya’s eyes became round.’
 c. *Drobi okruglilasj.
 fraction O.round.TH_I.PAST.FSG.SE

Some *e*-verbs have a narrower interpretation than the corresponding *i*-verbs:

- (26) a. Gorod/Vasja (po)zelenel.
 city/Vasya.NOM PO.green.TH_E.PAST.MSG
 ‘The city/Vasya turned greener.’
 b. ?Gorod/Vasju (po)zelenili.
 city/Vasya.ACC PO.green.TH_I.PAST.PL
 ‘They made the city/Vasya green.’
 c. Gorod/*Vasju ozelenili/ozelenjali.
 city/Vasya.ACC O.green.TH_I.PAST.PL.PFV/IPFV
 ‘They planted greenery in the city.’

And some *i*-verbs have a narrower interpretation than the corresponding *e*-verbs:

- (27) a. Ee *gruz/vzgljad (po)tjaželel.*
her load/gaze PO.heavy.THE.PAST.MSG
'Her load/gaze grew heavier.'
- b. On *(*u)tjaželil* ee *gruz/*vzgljad.*
he U.heavy.TH1.PAST.MSG her load/gaze
'He made her load heavier.'

Semantic relations between *e*-verbs and *i*-verbs derived from the same stem are unpredictable, especially given the role of the prefixes

Given the generally opaque relations between *e*- and *i*-verbs, no revelations are expected

But decausatives can, in fact, have interpretations that their transitive counterparts do not:

- (28) a. U *Miši lomaetsja/slomalsja* golos. Russian
at/by Misha break.3SG.SE/S.break.PAST.MSG.SE voice.NOM
'Misha's voice is cracking/has cracked.'
- b. #*Miša s.lomal* svoj golos.
Misha break.3SG.SE/S.break.PAST.MSG.SE self's voice.ACC
- (29) a. Mi *smo se juče razbili!* Serbo-Croatian
we BE.1PL SE yesterday break.PTCP.MPL
'We got wasted yesterday/we got drunk yesterday.'
- b. #*Mi smo sebe razbili!*
we BE.1PL oneself.ACC break.PRTC.MPL

English, COCA: 'her/his voice broke': 76/75, 'broke her/his voice': 0/1

The transitive is not ungrammatical, it just does not seem to have the semi-idiomatic interpretation of a puberty-linked voice quality change

Which means that this diagnostic should be taken with a big grain of salt

See also Koontz-Garboden 2009 for evidence that the transitive does not entail the intransitive

4.3 Intermediate summary

Slavic provides evidence for two types of unaccusatives:

- underived (transformatives)
- derived (decausatives)

The fact that the two types of unaccusatives combine with different prefixes suggest **different event types**

Transformatives and causatives derived from the same stem are not derivationally linked, in clear contrast with causatives and decausatives

Hence, contra Chierchia 2004, some unaccusatives are underived

So Chierchia's observation that in some dialects/languages *die* and *grow* are decausative does not mean that they always are

5 TWO VIEWS ON DEADJECTIVAL DEGREE ACHIEVEMENTS

How does an adjective become a verb?

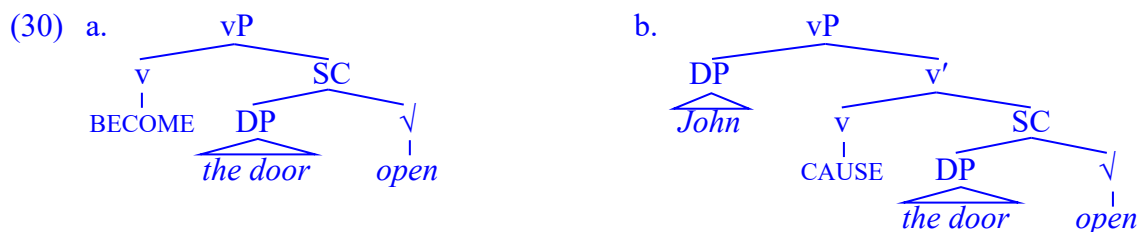
- standard view: combine an adjectival stem with a verbalizer
- modern decompositional views: verbalizers combine with complex structures

What is the internal argument of an unaccusative (the undergoer) an argument of?

5.1 The small-clause structure

Underlying small-clause structure (Harley 2008:39, intransitive vs. transitive):

Later work (e.g., Harley 2012, 2017): Voice and *v* as separate projections



The lexical status of the SC predicate is unclear:

- it is marked as an acategorical root (and Harley 2012:349 notes that this is needed to derive unpredictable meanings)
- however, deadjectival degree achievements can be derived from morphologically complex adjectives (e.g., *grustneti* 'to become sad'), which suggests that the base can be an adjective, too

Motivation for the underlying SC: restitutive reading of *again* and of durative adverbials (from Harley 2012):

- (31) John opened the door again.
- a. Restitutive: The door had been open before, and John reopened it.
 - b. Repetitive: John had opened the door before, and he did it again.
- (32) John opened the door for five minutes.
- a. Low-scope: The door spent a five-minute period being open.
 - b. High-scope: John spent a five-minute period in the act of opening the door.

The readings in (31a) and (32a) can be explained if the adverbials are adjoined to the SC

It remains unclear how this view can account for prefixed deadjectival degree achievements (if prefixes are viewed as contained in the complement of the lexical verb)

Another issue is the verbalization of roots that cannot function as positives (Vanden Wyngaerd et al. 2020 for Slovak, Caha et al. 2019 for Czech, Kukhto 2024, Kasenov 2025 for Russian):

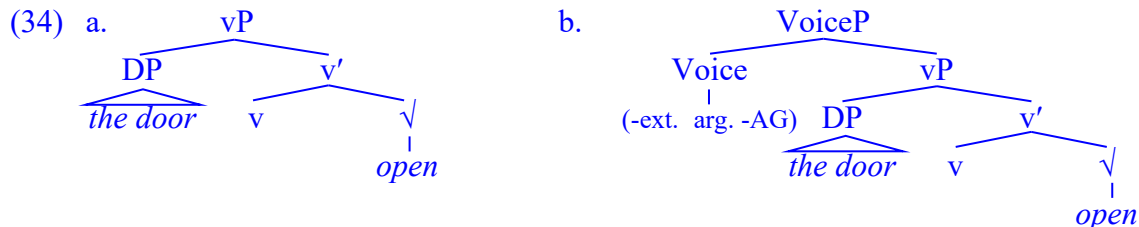
- (33) a. redok 'sparse, rare.SF.MSG', reže (red+je) 'rarer', redeti 'to become rarer' Russian
 b. kratak 'short', kraći (krat+ji) 'shorter', skratiti 'to make shorter' Serbo-Croatian

The bare stem of some *k*-adjectives cannot function as a predicate, but can serve as a base for comparatives and change-of-state verbs

This can be circumvented but there is no existing semantic treatment that would allow this easily

5.2 Direct composition

Direct composition (Alexiadou 2010:183, two types of unaccusatives, her “anticausatives”):



The semantic import of *v* in these structures is not specified

v is identified with CAUSE in Alexiadou et al. 2006:201, but there the resultant state is taken to be that denoted by the verbal root in combination with its theme, which implies the SC structure in (30)

Alexiadou’s crucial component: Voice as the source of the external argument or of its absence:

- Voice: the causer (agent or event) is introduced as an external argument
- lack of Voice: no causer or an internal causer

Evidence (same as here): unaccusatives with Voice (her type II anticausatives) have non-active morphology (coincidental with reflexive or passive)

For deadjectival verbs in Slavic, Voice and *v* can be distinguished:

- those formed by the *e*-theme are unaccusative
- those formed by the *i*-theme are transitive (and form unaccusatives by combining with the *se*-morph)

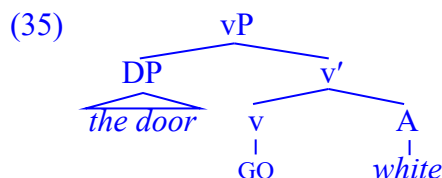
The combination of the verbalizer directly with the adjective can explain:

- the derivation from *k*-adjectives
- the semantics of deadjectival degree achievements with the scale extractable and extracted from the adjectival stem along the lines of Kennedy & McNally 2005

It is not obvious to us how lexical prefixation can be analyzed under this view, either

6 TOWARDS A PROPOSAL

Hypothesis: the structure underlying *e*-verbs is that of motion verbs rather than causatives, with the adjectival stem (i.e., the scale) supplying the path:



While a motion event might have a cause, it is not coded in the structure of the verb

Causatives are more likely to have the SC structure in (30)

6.1 Regarding “internal causation”

Alexiadou et al. 2006: unaccusative roots (like *blossom*) are internally caused, hence also have a cause component to their meaning

Evidence: modification by PPs introducing “indirect” or “inactive” causes (Levin & Rappaport Hovav 2005:125 citing DeLancey 1984):

- (36) a. The flowers wilted from the heat.
b. His uncle died from/of pneumonia.

However, such PPs can also occur with unergative verbs (which Alexiadou et al. 2006 do not regard as involving causation, p.208):

- (37) a. Zeva od dosade. Serbo-Croatian
yawn.3SG from boredom
'He is yawning from boredom.'
b. My plačem ot radosti. Russian
we cry.1PL from joy
'We're crying from joy.'

And there is a lot of discussion in the literature whether all *from*-PPs are the same (Horvath & Siloni 2011) and whether more than one effector can be available (Koontz-Garboden 2009)

Intermediate result: no evidence for a syntactically projected CAUSE in all unaccusatives

6.2 Advantages of a GO-type *v*

Semantics: unlike BECOME and CAUSE, GO need not combine with a state of affairs/proposition (no need for a SC analysis)

Change-of-state semantics straightforwardly translates into the motion metaphor (and we have not *gone mad*)

The mutual non-entailment of *e*- and *i*-verbs is not unexpected

Note that under Harley's and Alexiadou's analyses the only difference is the presence of Voice (which might even not introduce an external argument!)

The issues of different perfectivizing prefixation can be dealt with:

- i. preferentially unprefixated *e*-verbs: movement along a path is non-telic (as long as the goal/endpoint is not specified)
- ii. preference for the prefix *po-* for *e*-verbs: one of the interpretations of the preposition *po-* is 'along'
- iii. near-obligatory prefixation for *i*-verbs: the SC complement of *v* introduces the result, so the verb has to be marked as telic

Since the path and the goal can be introduced separately (modulo the Unique Path Constraint, Goldberg 1991), the non-SC analysis of *e*-verbs has a higher chance of incorporating prefixes. Though the problem resurfaces for *i*-verbs if they have the SC structure in (30)

Beck & Snyder 2001, Beck 2005: the restitutive reading of *again* is available for motion verbs

7 CONCLUSION

The minimal outcome: **two types of unaccusative deadjectival degree achievements**

Two morphosyntactically distinct unaccusative structures (in accordance with Alexiadou):

- transformatives: the *e*-thematic suffix, active syntax
- decausatives: the *i*-thematic suffix, *se*-marking

They are also semantically distinct:

- transformatives: unpredictable relation to transitive *i*-verbs
- decausatives: transparent relation to transitive *i*-verbs (modulo object choice)

Tentative conclusions:

- neither the SC syntax nor direct $v+\sqrt{\quad}$ composition provide an account of prefixation if the adjectival stem and the prefix are taken to denote the resultant state
- the distinction between the two types of unaccusatives is irreducible to the presence (or absence) of Voice
- *e*-verbs might have the morphosyntax of GO rather than CAUSE verbs

Not discussed today, alas:

- the behavior of *e*- and *i*-verbs in Serbo-Croatian, where the distinction between the two has been being neutralized (spoiler: languages appear to resist having two ways of forming unaccusatives for the same stem)
- two different unaccusative verbalizers, *-e*- and *-nu*- (spoiler: can mutatives involve the SC structure in (30)? No, they cannot: they are not deadjectival synchronically)

More work to be done!

8 APPENDIX: STATIVE READINGS OF SLAVIC DEADJECTIVAL VERBS

In both languages color *e*-verbs give rise to stative readings:

- (38) a. Vdali zelenel les. Russian, RNC
 in.the.distance green.PAST.MSG forest
 ‘Far away the forest shone green.’
- b. On byl černym kak smola, beleli tolko zuby.
 he was black.INS as tar whiten.PAST.PL only teeth
 ‘He was pitch-black, only his teeth shone white.’
- (39) a. Dan se beleo. Serbo-Croatian
 day SE whiten.PCPL.MSG
 ‘The day was glisteningly white.’
- b. Šuma se zelenela. Serbo-Croatian
 forest SE green.PCPL.FSG
 ‘The forest was beamingly green.’

Important: it is *only* color *e*-verbs that give rise to the stative readings

In Serbo-Croatian stative readings require *se*-marking

In Russian *se*-marking used to be possible, remains marginally possible:

- (40) a. lužok zelenelsja, točno vymytyj RNC, up to the 19th c.
 meadow green.PAST.MSG.SE as.if washed
 ‘The meadow shone green, as if freshly washed.’
- b. Inej belelsja na ee šubke. RNC, up to the 20th c.
 hoarfrost whiten.PAST.MSG.SE on her fur coat
 ‘Hoarfrost glistened white on her fur coat.’

Stative readings are derived from transformative (inchoative) ones:

- possible for color (and suchlike: *light, dark*, etc.) verbs only
- take the prefix *za-* to form perfectives in Russian
- require overt marking in Serbo-Croatian

By the same reasoning as before, **the inchoative reading should not be derived as causation of a state**

Something for the future: *se*-marked stative readings of *se*-marked *i*-verbs:

- (41) a. *dlit's'ja* 'to be being long, to last on and on, to continue [for]'
 b. *visit's'ja* 'to be rising high'
 c. *širit's'ja* 'to be becoming wide(r), to be being wide'
 d. *teplit's'ja* 'to burn low (of fire), to emit slight warmth'

Causatives (and decausatives) based on these stems must be prefixed

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