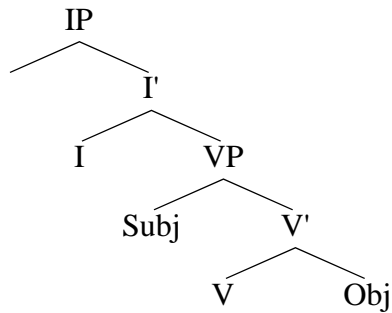


Little v: History, function and analysis
 Distributed Morphology lecture 4 , ABRALIN, March 17, 2003

1 Where did little v come from?

1. *Splitting the VP:*

a) VP-internal subject hypothesis

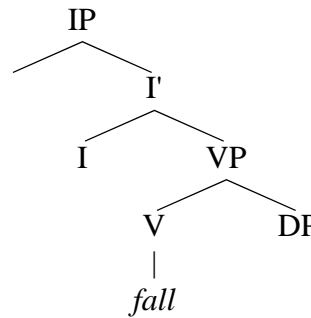
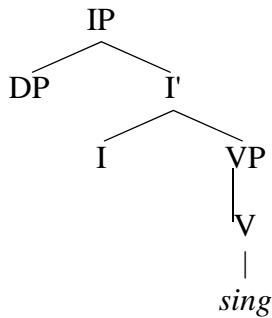


b) Consequences:

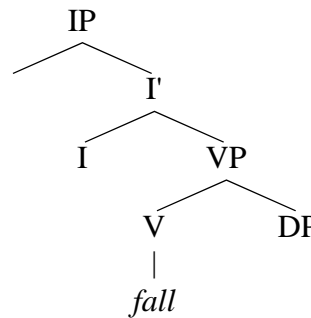
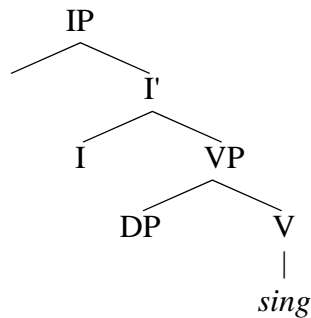
i) Subjects now directly theta-marked by verbs. IP just a case-position, not a theta-position. This was largely viewed as a good thing

ii) Tricky: how to distinguish between unaccusative and unergative intransitives?

BEFORE



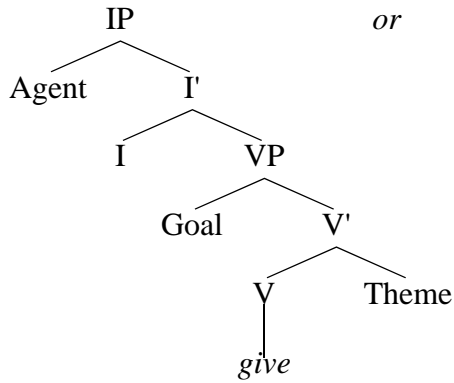
AFTER



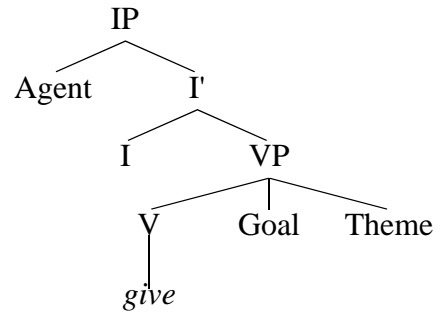
iii) What about ditransitive verbs?

(Mary gave John a book)

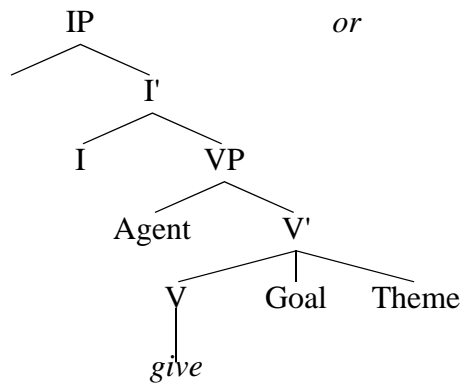
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or



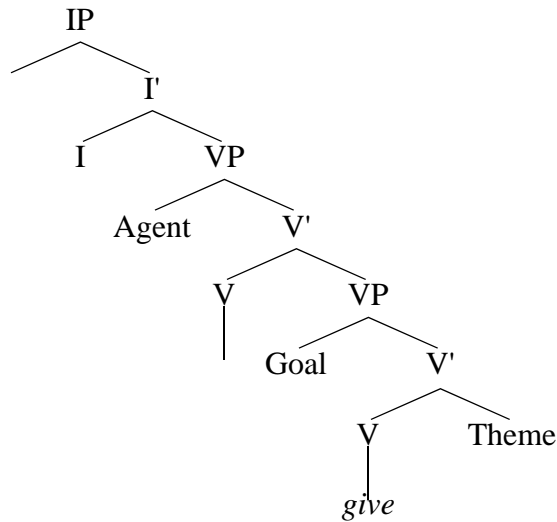
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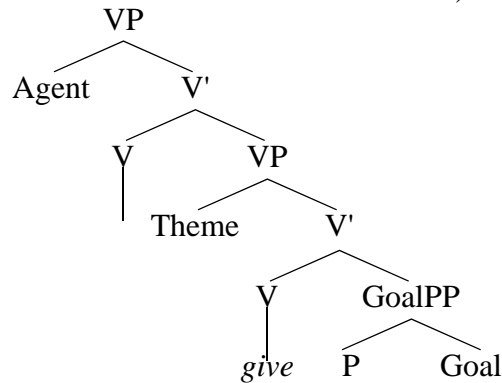
or

???

2. X-bar theory says that all nodes are binary branching.
 So the "after" VP-internal structure was no good.
 Solution: Larson's split-VP hypothesis



(and of course the opposite for non-dative shifted structures): *Mary gave the book to John*



Support for this idea:

Barss and Lasnik show that in Goal-Theme orders, binding theory says that goals c-command themes, and in Theme-Goal orders, themes c-command Goals:

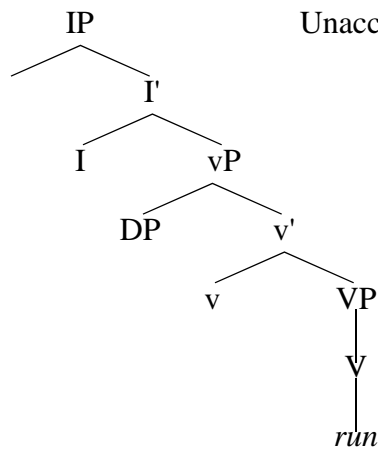
- a) *Mary showed John himself (in the mirror)*
- a') **Mary showed himself John (in the mirror)*
- b) *Mary showed John to himself.*
- b') *??Mary showed himself to John.*

- For Larson, the upper verb was semantically null, just a place-holder to which the raised verb could attach.
- However, this meant that the raised verb would have to assign the subject theta-role *after movement*, so it could be local to the Agent, not in base-position
- Question: what if the upper verb was contentful enough to assign a subject theta-role by itself? That is, what if the main verb didn't assign agent theta-roles, rather a 'light' verb adjoined immediately above the main verb did?

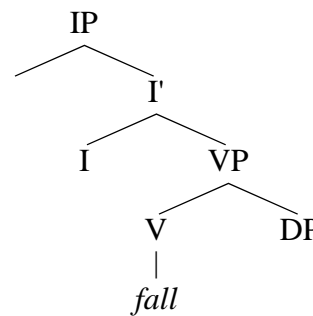
3. Consequences:

- i) Solves the problem with unaccusatives vs. unergatives, structurally speaking:

Unergatives



Unaccusatives



- ii) But what about theta-assignment? Weren't we happy that the VP-internal subject hypothesis meant that the agent was within the verb's own projection so it could assign a theta-role to it?

4. Maybe not!! Kratzer on possible verb meanings:
 a) Marantz's 'idioms': lots of meaning variation with some verbs:

kill a bug	=	cause the bug to die
kill a conversation	=	cause the conversation to end
kill an evening	=	while away the time span of the evening
kill a bottle	=	empty the bottle
kill an audience	=	entertain the audience to an extreme degree

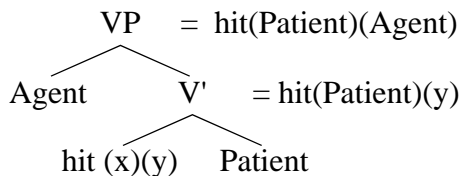
Important! these aren't idioms.

kill the bottle / the peanuts / the casserole / the wine
kill an hour / a few minutes / time

Even more important: you see this variation conditioned by objects -- *never subjects!*

- b) Bresnan's and Grimshaw's reply: the external argument is still an argument of the *verb*, it's just a special argument, in that it combines *last*. So you can have special meaning with the verb and the object without the subject, but not vice versa.
 (Their prediction: no idioms of e.g. verbs+adjuncts excluding the object.)

- c) Kratzer's semantic argument
 a) Semantic interpretation of a node results from combining the two daughter nodes.
 b) Verbs are functions. Traditionally, *hit*, e.g., is a two-place function:
 hit(x)(y)



"Hit" is a function that takes an argument x and turns out a function that takes another argument y and turns out truth value = TRUE iff y **hits** x.

- d) How do these special interpretations work?

"Kill" is a function that takes an argument x and turns out a function that takes another argument y and turns out:
 truth value = TRUE iff x is an animate being and y **kills** x.
 truth value = TRUE iff x is comestible and y **consumes the last of** x.
 truth value = TRUE iff x is a time period and y **wastes** x.

- e) But what's to prevent you from doing the same trick with the "y" argument?

"Blick" is a function that takes an argument x and turns out
 a function that takes another argument y and turns out:
 truth value = TRUE iff y is an animate being and y **blicks** x.
 truth value = TRUE iff y is a time period and x **exists during** y.
 truth value = TRUE iff y is a food item and x **is made sick by** y.

so "John blicked Mary" has whatever meaning 'blick' has.
 "Today blicked the mayfly" says something like "The mayfly existed today."
 "The sausage blicked Mary" says something like "The sausage made Mary sick"

f) Kratzer says that the only way she can see to capture Marantz's generalization is if external arguments are not arguments of their verbs after all, but arguments of some other verb — a light verb — that selects them, and then combines with the main verb to give the whole meaning:

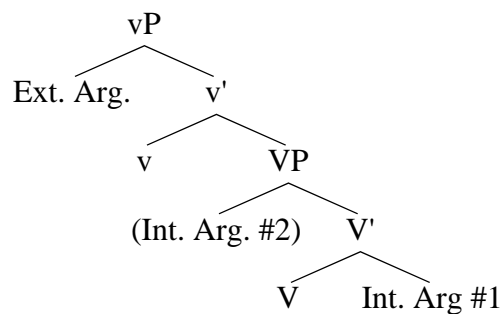
John killed Bill:

There's a "causing" and a "killing"; John is the agent of the causing, Bill is the patient of the killing, and the causing and the killing were the same event -- so John caused the killing of Bill.

John killed the wine

There's a causing and a killing; John is the agent of the causing, *the wine* is the patient of the killing, and when *kill*'s patient is comestible, *kill* means 'finish', and the causing and the killing are the same event -- so John caused the finishing of the wine.

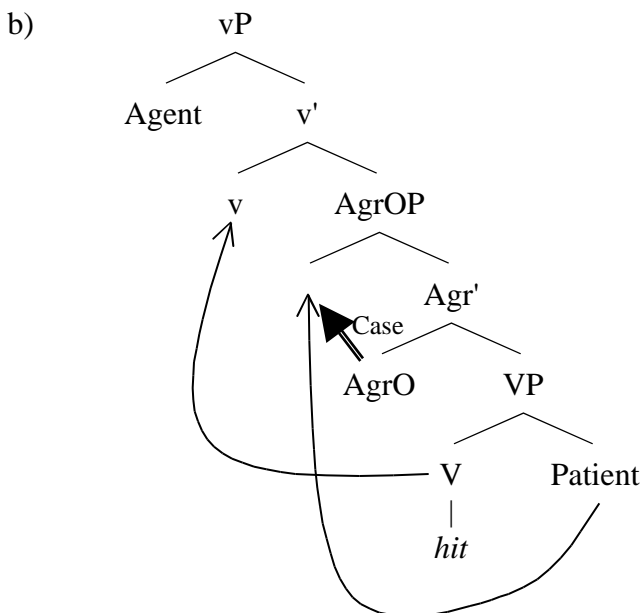
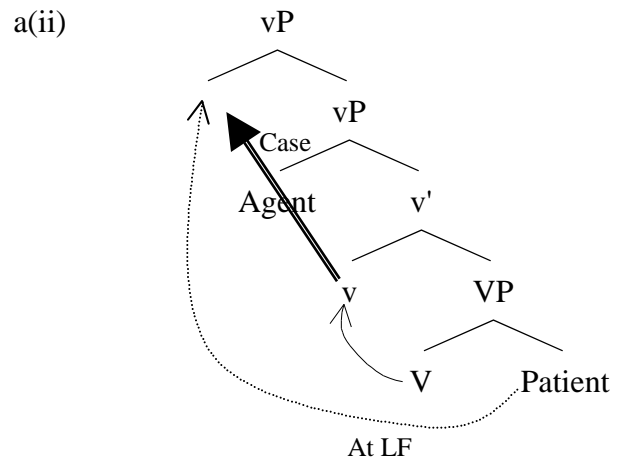
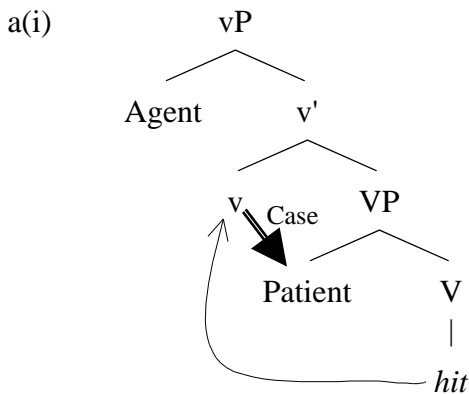
g) So all verbs with external arguments have a separate little "v" that selects the external argument:



h) Morphological evidence: Malagasy 'active' prefix *-an-*
 M+an+sasa ny lamba (amin ny savony) Raso
 T+v+wash the clothes with the soap Raso
 "Raso washes the clothes with the soap."

i) What theta-roles may v assign? Agent (CAUS), Experiencer (HAS? IS?)
 Is v there when it's not assigning a theta role?
 Hale and Keyser: NO, me YES (it means BECOME)

5. Some consequences: v and Case: Burzio's Generalization
- a) Burzio's generalization:
 - if a verb assigns an external argument, it can assign accusative case.
 - if a verb can assign accusative case, it has an external argument.
 - b) This describes the connection between external arguments and DP-movement that we see in, for example, passives and unaccusatives.
 - c) The passive *-en* 'absorbs' the external theta role and simultaneously deprives the verb of its ability to assign accusative case. Hence the object DP must move to Spec-IP to be case-marked.
6. Burzio's generalization is naturally derived if we assume that either
- a) Agent-selecting v assigns accusative case, either
 - i) via government (Kratzer, pre-1992)
 - ii) or in its own layered specifier (post-1995 Minimalism)
 - b) Agent-selecting v takes an AgrOP as its complement, and AgrOP assigns accusative case (1995-1997 Minimalists...)



7. Either way, Passive can now be a syntactic operation:
 -rather than choosing the Agent-assigning v head in the numeration,
 -choose the Passive v head
 - it does NOT assign an Agent theta-role
 - it does NOT assign accusative (or select an AgrOP complement)

(Caveat: I don't believe any of the above, actually. I think accusative case IS available even when there is no external argument present—I can tell you about my own ideas about case-marking if you want).

8. Allows an account of -ing gerunds:
 a) Mary's reading **of** Pride and Prejudice
 b) Mary reading Pride and Prejudice

-ing can attach lower than vP, to the VP. In that case, no v is present and no accusative case is available (8a).

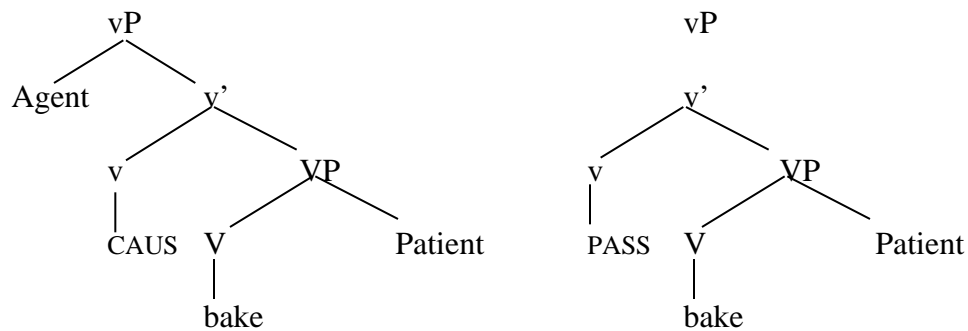
-ing can attach above vP. In that case, v is present and accusative case is available. (8b). (see Harley and Noyer 1998 on particle shift).

2 The nature of vP: causative only? or controlling Eventiveness?

Kratzer's position on VoiceP:

- Selects an external argument in actives
- Does not select an external argument in passives, but still present.

9.



'Mary baked the bread'

'The bread was baked'.

10. My position:
 → Anytime a verb is 'eventive', whether agentive or not, there's a vP
 → Externally caused events contain a v which selects for a Spec
 → Spontaneous events (internally caused events) contain a v which does not require a Spec

- Stative verbs (*know, have, want, etc.*) contain a stative v.
- Complement to v is a predicative Small Clause (SC)

Stative v = “BE”, causative v = “CAUSE”, unaccusative v = “BECOME”

NB: Lexical causative v DOES NOT EMBED unaccusative v. I.e. no “Cause to Become”

3 How did I get to my position?

11. Japanese causatives (Harley 1995)

- Causative morpheme *sase*
- occurs in two kinds of causative:

(i) purely compositional, syntactic causatives, e.g.

- a. Hanako-ga Taroo-ni pizza-o tabe-sase-ta
 H.-NOM T.-DAT pizza-ACC eat-CAUS-PAST
 ‘Hanako made Taroo eat pizza.’

(ii) non-compositional lexical causatives

- b. *niow-* ‘smell’ *niow-ase* ‘make smell’ or ‘hint (v.)’

12. For the lexical causative only, there are other morphemes which may also realize the causative v—that is, only lexical causative v exhibits root-conditioned allomorphy.

- a. *koe* ‘become rich’ *koyas* ‘enrich’ (as with fertilizing soil)
koe-sase (ok as ‘make become rich’, not as ‘enrich’)
- b. *tobu* ‘fly’ *tobas* ‘dismiss’ **tob-ase*
tob-ase (ok as “make fly”, no good as “dismiss”)

→ This looks just like the blocking effect we’ve seen before: when a more specific causative morpheme (e.g. *-as-*, allomorphically selected for by these roots) is available, the use of *-ase-* as a lexical causativizer is blocked.

Same facts in Mitla Zapotec, according to Miyagawa:

13.

	Intransitive	Transitive
a)	ni÷ <i>move</i>	s-ni÷ (<i>make</i>) <i>move</i>
b)	ri÷ <i>come/go out</i>	Læ÷ <i>take out</i>
		*s-ri÷ <i>take out</i>

→ This led Miyagawa (1990) to propose that *-ase-* in Japanese was subject to a Paradigmatic Structure effect between the lexicon and the syntax:

13. Paradigmatic structure operation:

a. Coming out of the lexicon:

	Intransitive	Transitive
niow-	niow <i>smell</i>	
ko-	koe <i>become rich</i>	koyas <i>enrich</i>

b.

	Intransitive	Transitive
niow-	niow <i>smell</i>	niow-ase <i>hint</i>
ko-	koe <i>become rich</i>	koyas <i>enrich</i>

Hence, **koe-sase* is blocked as a lexical causative

14. Late insertion approach much more parsimonious (Miyagawa 1994):

V _{CAUS}	-	/ V	_____	
		tabe-		<i>eat</i>
		...		
V _{CAUS}	-as-	/ V	_____	
		ko-		<i>become rich</i>
		tob-		<i>fly</i>
		...		
V _{CAUS}	-ase-	Elsewhere		

Important sub-conclusion: *v* realized by competition, just like any other functional projection. *v* not a root, despite having significant semantics and being able to select for a subject.

BUT: two things still to explain:

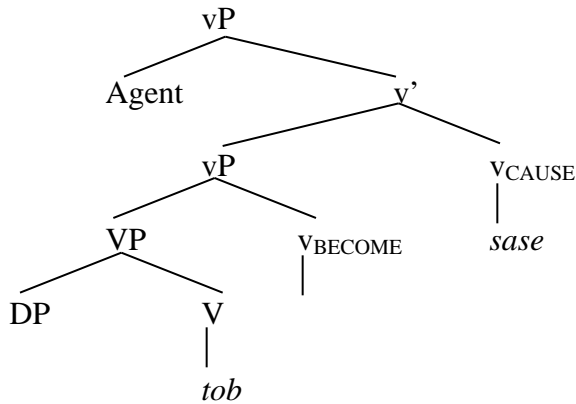
→ use of *-ase-* as a *syntactic* causativizer is still ok.

→ apparent complementarity between lexical causativizers and unaccusative morphemes!

→ and from Miriam Lemle that Portuguese verbalizing suffixes show it:

18. a. en-sand-ecer en-sand-ecer (*en-sand-ec-izar)
 ‘become crazy’ ‘make crazy’
- b. em-branqu-ecer em-branqu-ecer (*em-branqu-ec-izar)
 ‘become white’ ‘make white’

19. Plus, assuming that there is a null BECOME *v* head helps us explain why, when creating the *syntactic* causative *tob-ase*, we get the Elsewhere form and not the lexically conditioned form: the lexically conditioned form occurs just in case the neighbor is a verb from a particular list—but if the neighbor is a null BECOME affix, the lexically conditioned form’s requirements won’t be met, and the elsewhere affix should surface:



20. For these reasons, and also because it makes a semantically coherent picture, I assume that there is an inchoative *v* head which is in complementary distribution with the causative *v* head.

→ “Lexical” (idiomatic) interpretation up to the first *vP*. Compositional interpretation after that.

→ Consequently, any causative *vP* stacked on outside another *vP* will *have* to be compositionally interpreted as a true “cause”.

21. Inevitable conclusion: unergative verbs should *not* be able to have lexical causatives made out of them since they have a *vP* in their l-syntax already. Any additional *vP* will need to be compositionally interpreted, because it’ll be stacked on outside another *vP*.

→ Some good test verbs, usually: *sing, dance, speak, shout, etc.* (also sometimes *sleep, laugh...*)

4 Harley & Noyer 2000: Getting roots in the right places

→ Difference between syntactic ill-formedness and encyclopedic weirdness:

- (2a) Chris thought the book to Martha.
- (2b) The bridge exploded the engineers.
- (3a) The red under did not five lunch.
- (3b) James put yesterday.

→ When do we get what?

- (4a) The cat chased a mouse.
- (4b) The shark chased a fish.
- (4c) The fish chased a shark.

→ Assuming a vP and a P and X-bar theory, there are a limited number of distinct syntactic configurations conceivable, most of which possibilities correspond to some class of verbs or other.:

5.

Verb	Spec,vP	v	Spec,√P	√	Comp,√P
<i>give</i>	DP	CAUSE	DP		DP
<i>destroy</i>	DP	CAUSE	∅		DP
<i>grow (tr)</i>					
<i>jump</i>	DP	CAUSE	∅		∅
<i>learn</i>	∅	BECOME	DP		DP
<i>grow (intr)</i>	∅	BECOME	∅		DP
<i>arrive</i>					
<i>know</i>	∅	BE	DP		DP
<i>tall (?)</i>	∅	BE	∅		DP

Table 1

6. In order to rule out cases like (3), we proposed that roots come with what are essentially subcategorization frames for surrounding syntactic structures.

→ The subcat frame for a certain root must be met for a root to be licensed in a given structure.

→ These are intended to conflate/replace the subcat/theta role frames attached to verbs in Lexicalist theories.

In (3), the roots are not licensed in the structure, hence we have ungrammaticality

In (2), the roots are ok with the structure, but the interpretation is a bit funny—Encyclopedic problem.

7. A proposal for some English verbs

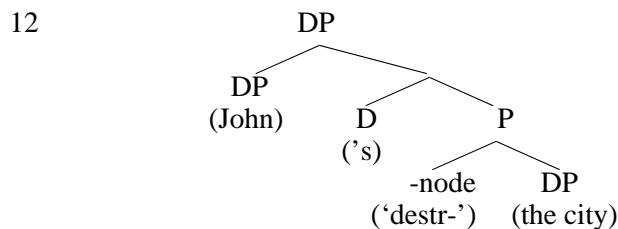
	<i>Phonology</i>	<i>Licensing environment</i>	<i>Encyclopedia</i>
a.	<i>sink</i> ¹	[±v],[+DP],[±cause]	what we mean by <i>sink</i>
b.	<i>big</i>	[-v],[+DP]	what we mean by <i>big</i>
c.	<i>open</i>	[±v],[+DP],[±cause]	what we mean by <i>open</i>
d.	<i>destroy</i>	[+v],[+DP],[+cause]	what we mean by <i>destroy</i>
e.	<i>arrive</i>	[+v],[+DP],[-cause]	what we mean by <i>arrive</i>
f.	<i>grow</i>	[+v],[+DP],[±cause]	what we mean by <i>grow</i>

→ Note the mandatory-Agent verbs are not selecting for an external argument here—they select for v_{CAUSE} , and *it* happens to require an external argument.

5 **Harley and Noyer 1998 continued: meaning in subcat frames? no!**

Marantz (1997)'s remarks on nominalizations: Agent interps in nominalizations not connected to presence of Agent-selecting xP:

- 8. Tomatoes grow.
The growth of the tomatoes
The tomatoes' growth
- 9. John grows tomatoes.
#John's growth of tomatoes
#The tomatoes' growth by John
- 10. #The crop destroyed.
The crop's destruction
- 11. The insects destroyed the crop.
The insects' destruction of the crop
The crop's destruction by the insects



¹ The question of how *sink* and *open* differ such that in the non-verbal environment *open* is realised as an adjective (requiring nominalising morphology to become nominal) and *sink* is realised as a noun (requiring participle morphology to become adjectival) is a thorny one. For the moment, we will assume that they do *not* differ, and the realisation or not of overt morphology in these other environments does not reflect on their fundamental structure. This seems intuitively wrong, but we will adopt it as a temporary position for the purposes of this discussion.

→ Conclusion: In nominalizations (but not in verbal forms), the availability for an agent interp of the spec-DP is entirely due to the Encyclopedic knowledge about *destroy*-ing needing to be externally caused

→ Possible alternative: now that Rolf and I have proposed including subcategorization frames with Roots, could there be meaning associated with that? I.e. might it be the optionality of [\pm CAUSE] with *grow* that predicts the lack of agentive interpretation in the nominal context? And might it be the [+CAUSE] licensing feature on *destroy* that ensures the availability of the agentive interpretation mandatory in the nominal context.

→ Our answer: *no*. Reason: because there are Roots which are [\pm CAUSE] yet allow an agent interp in the nominalized form, and Roots which are [+CAUSE] when verbal, yet *forbid* an agent interp in their nominalized form:

[\pm CAUSE] roots which allow an agent interpretation in nominalization:

- (13) a. The balloon exploded.
b. The balloon's explosion
- (14) a. The army exploded the bridge.
b. The army's explosion of the bridge
- (15) a. Wealth accumulated.
b. The wealth's accumulation
- (16) a. John accumulated wealth.
b. John's accumulation of wealth
- (17) a. Jim and Tammy Faye separated.
b. Jim and Tammy Faye's separation
- (18) a. The teacher separated the children.
b. The teacher's separation of the children
- (19) a. The German principalities unified in the 19th century.
b. The principalities' unification in the 19th century
- (20) a. Bismarck unified the German principalities.
b. Bismarck's unification of the German principalities

[+CAUSE] roots which forbid an Agent interp in nominalizations:

- (21) a. Mary amused the children
b. *The children amused.
c. *Mary's amusement of the children

- (22) a. Bill confused Mary.
 b. *Mary confused.
 c. *Bill's confusion of Mary
- (23) a. John pleased Mary.
 b. *Mary pleased.
 c. *John's pleasing of Mary (ok without the 'of', of course)

→ Consequently, the source of the Agentive reading for nominalizations cannot be the subcategorization frame of the root, but must be the encyclopedic knowledge about the meaning of the root.

→ Also, we felt that we could show clearly that contextual knowledge could create these effects:

- (24) a. Dust accumulated on the table.
 b. The accumulation of dust on the table
 c. #John's accumulation of dust on the table

→ Interesting effect: in the variable-behavior verbs, the goodness of the agentive nominalization interpretation depends on the goodness of the spec-DP possessor as an Agent. Non-intentional possessors don't carry over to the agentive nominalizations:

- (25) a. Adultery separated Jim and Tammy Faye.
 b. #Adultery's separation of Jim and Tammy Faye
- (25) a. The Cold War separated E. and W. Germany.
 b. #The Cold War's separation of E. and W. Germany
- (25) a. The 19th century unified the principalities.
 b. #The 19th century's unification of the principalities

Our conclusion:

- (15) Three classes of verbs
- a. Internal Causation: the action is always dependent on the argument undergoing the change of state. (Also called spontaneous)
- b. External Causation: The action must be instigated by an argument other than the one undergoing the action.
- c. Underspecified: The action may causally originate either with the object of the action or with another argument.