

“Severing the external argument from its verb” and “No escape from syntax”

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1. Kratzer

1.1 Davidsonian event semantics:

1) “We bought your slippers in Marrakesh

λe [buy (your slippers)(we)(e) & in Marrakesh(e)]

= “There was an event of us buying your slippers and that event was in Marrakesh”

→ Syntactic arguments are direct arguments of the verb—compose directly with the verb. Adjuncts are not.

2) Neo-Davidsonian

“We bought your slippers in Marrakesh

λe [buy (e) & Agent (we) (e) & Theme (your slippers) (e) & in Marrakesh(e)]

= “There was an event of buying and the agent of the event was us and the patient of the event was your slippers and the event was in Marrakesh.

→ Nothing (except the event argument) is an argument of the verb. Each argument is introduced by its own separate predicate.

→ Either approach could be captured in a theory of LCS with a rule about ‘ordered argument association’ in the syntax:

3) a. ‘buy’ $\lambda x \lambda y \lambda e$ [buy(x)(y)(e)]

b. ‘buy’ $\lambda x \lambda y \lambda e$ [buy(e) & Agent(y)(e) & Patient(x)(e)]

either lexical entry gives the same result

buy is a 3-place function ($\lambda x \lambda y \lambda e$)

buy combines first with its Patient (λx), then its Agent (λy), then its event arg (λe)

→ Kratzer: going to argue that some of this decomposition happens in the syntax.

→ in fact, going to argue that *buy* (and all transitive verbs with external arguments) are not three-place predicates (Agent, Patient & Event), but two-place preds (Patient and Event)

→ Agents are added by a separate predicate, with its own lexical entry, which projects its own phrase in the syntax.

1.2 External arguments are special

- 4) Williams: *buy* (1, 2)
 Rappaport & Levin: *buy* (<Agent>, Theme)
 Grimshaw: Thematic (Agent, Theme) Aspectual & (Initiator, Delimiter)
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Marantz: *buy* (Theme)

Kratzer: how do you implement this?

- 5) If verbs & their arguments combine by function application, and if the lexical entry for *buy* looked like this:

buy $\lambda x \lambda e [\text{buy}(x)(e)]$

then you'd have a proposition as soon as you combined *buy* with its patient and its event argument. How does the agent get in there?

- could just add it by brute force, with special semantic interpretation rule for VPs
 → ick!

- 6) Marantz's 'idioms': many case where you get a lot of meaning variation depending on the type of object a verb takes

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

throw a baseball
 throw support behind a candidate
 throw a boxing match
 throw a party
 throw a fit

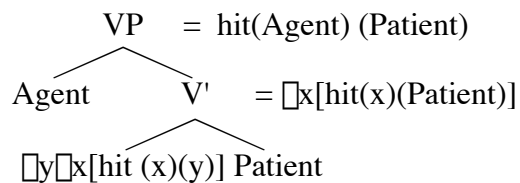
take a book from the shelf
 take a bus to New York
 take an aspirin
 take a nap
 take a letter in shorthand

- 7) Important! these aren't exactly 'idioms' — they're not fixed (remember Williams?):

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

- 8) Even more important: you see this kind of variation conditioned by objects -- *not subjects!*
- 9) 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.)

- 10) Kratzer's argument
- Semantic interpretation of a node results from combining the two daughter nodes.
 - 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 .

so truth value of tree above = 1 iff Agent hits Patient

- 11) How do these special interpretations work?

Could do it like this:

- kill**₁ 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 .
- kill**₂ 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 comestible and y **consumes the last of** x .
- kill**₃ 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 a time period and y **wastes** x .

Or like this:

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.

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

Neither approach predicts that it should be impossible:

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"

13) 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:

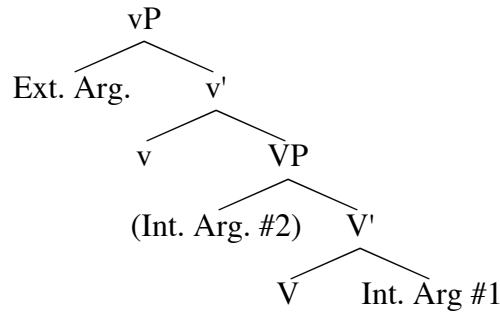
1.3 External arguments are arguments of a separate head, Voice

→ "Suppose quite generally that arguments are introduced by heads"

→ Aha! Hung (1988) reports that Malagasy has exactly such a head, represented by visible morphology

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

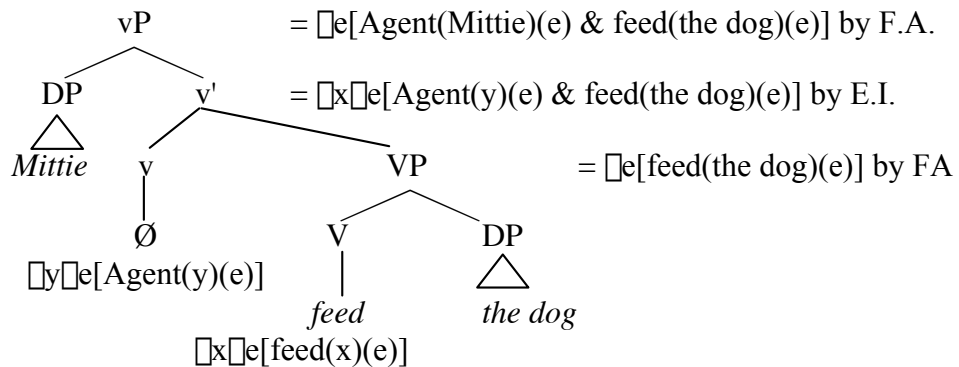
15) So all verbs with external arguments have a separate little "v" that selects the external argument:



→ long irrelevant waffle about whether the external-argument introducing head is lexical or functional

→ (though I concur that splitting the vP “allows us to harvest many of the pleasant syntactic consequences of [previous] proposals” along these lines)

16) How do the denotations of VP & vP get combined? “Event Identification”



“Event Identification is one of several admissible conjunction operations”

→ the events that are being identified have to be compatible

→ then confusing excursus about how to add an external argument to a stative verb

→ where does event argument come from to satisfy the open argument slot? It doesn't; it gets existentially quantified (bound) by an appropriate quantificational functional head higher up (e.g. Tense)

17) Back to variable interpretation verbs: *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.

→ then excursus about accusative case, Burzio's generalization, and *of*-ing vs. acc-inc & poss-ing gerunds

- 18) a) Mary's reading **of** Pride and Prejudice
 b) Mary reading Pride and Prejudice

2 **Marantz: No escape from syntax — more arguments for vP**

Lexicalism: 'Two-engine theory': engine 1, the lexicon, generates internally complex words which are manipulated by engine 2, the syntax

2.1 **The lexicon and lexicalism and compositionality**

"both the lexicon and syntax connect sound and meaning by relating the sound and meaning of complex constituents systematically to the sounds and meanings of their constitutive parts"

→ the central idea of lexicalism is that while the sound-meaning connection generated by engine 1 *can* be systematic, it doesn't *have* to be, while the sound-meaning connection generated by engine 2 *has* to be systematic.

19) Lexicalism: 'Word' (= 'phonological word') = 'Lexical Item'

- a) Some domain of phonological rules = 'Lexical Item'
- certainly not true of what we normally think of as 'phonological words' (e.g. *walked* — 2 LIs, one Phon Wd)
 - probably not true in general, though possibly phonotactic constraints might hold of Lexical Items (i.e. morphemes), see Hammond
 - but even if true that Lexical Items were the domain of some special phonological rules, could still do phonology after syntax; some rule would only apply to their appropriate domains
 - For lexicalist organization to be true, would need to show that the phon word (or whatever domain they wanted, with internal structural complexity), corresponded to some special domain relevant to syntax/LF — e.g. relevant to special meanings.

b) Lexicalist claim: ‘continuum between the meanings of atomic morphemes and derivationally derived words that ends abruptly at the word level.’ i.e. after the word level, *must* get compositionality.

→ ‘words can have special meanings of the sorts that roots might have, but syntactically derived structures must have meanings predictable from the meanings of their parts and of their internal structures,’

“This paper brings the reader the following news: Lexicalism is dead, deceased, demised, no more, passed on...”

2.2 Idioms: there is a domain for non-compositional meanings, but it ain't the Word; it's the vP

→ is it in fact the case that word meanings are so different from idiom meanings?

In fact, no, argued by Jackendoff, Williams (last week)

→ in fact, the boundaries for special meanings are syntactically identifiable

→ Marantz: vP is one. (rather, v') It's because roots in VP can say they get a special meaning in the environment of v, which they can 'see' (local to it) but not spec-vP, which they can't. (This is different from but related to Kratzer's idea))

Consequence: domain for special meaning will sometimes be smaller than a phonological 'Word', sometimes bigger — bad for Lexicalism

→ Bigger because verb roots and their objects together are within vP, and hence can get special meanings

→ Things that look like they might be cases of idioms including vP turn out not to be—no true Agents are involved

20) 'The shit hit the fan' is non-agentive.

→ Ditto for 'The cat got X's tongue', etc.

→ But what about "that dog won't hunt", 'that's the pot calling the kettle black' and other proverbial things?

→ weaker claim: can't have a fixed agent and free object. (Slightly different formulation than that of Marantz; more likely to be right; Koopman & Sportiche's.)

→ Smaller because some words include vP, and hence can't be idiomatically interpreted

21) Two kinds of passive: eventive and adjectival

→ adjectival vs. eventive passives: adjectival passives formed on VP, eventive ones include vP

→ note adjectival = stative, because vP = event.

→ Fixed idioms with passive in them turn out to be stative, not eventive.

→ 'Les vaches seront bien gardées', Chichewa

→ Conclusion: no eventive passive can be a fixed idiom

→ Causative verb can't participate in an idiom unless the complement is non-agentive (if the complement were agentive, it would have a vP and be a barrier to further idiomatic interpretation)

make oneself scarce, make ends meet, make x over

(crucial for me: just one event, too — test with make ends meet?)

laisser tomber, fera passer le gout du pain

2.3 Remarks on nominalization: causativization *must* happen in the syntax

(Contra Fodor!)

→ 60's transformational grammar: sentences were transformed into sentential nominalizations 'in the syntax': 'that john destroyed the city' → John's destruction of the city.

→ old-style transformational grammar: only Vs could take complement clauses and subjects (phrasal distribution was part of what told you if something was a V).

→ "words were grouped into the same grammatical category N, V, Adj, when they shared distribution"

→ Nominalized Vs were a problem for the distributional definition of V if they were 'really' (lexically) Ns.

→ However if they were really underlying Vs, and then became Ns through a transformation, then no problem

→ If not, however, then Ns and Vs can't just be distributionally different; they must be inherently different -- distinguished by an 'internal property', e.g. a feature +N, +V. etc.

→ X-bar theory says that categories all have the same phrasal distribution possibilities

→ Chomsky saw the choice as follows: write complements into the NP rule ("extending the base") or include a transformation changing VPs to NPs ("extending the transformational component" — the nominalization transformation)

→ He opted for the former, observed that the categories could no longer be distinguished on the basis of distribution, and X-bar theory was born

→ Because nominalizations don't always have interpretations that are available to their corresponding sentences, and because meaning was supposedly a DS property, the occasional non-correspondence of meaning between nominalizations & sentences was an argument against the transforming position. (the relevance of the 'transmission' example)

→ BUT: the central point of ‘Remarks’ for Marantz—about ‘grow’ vs. ‘destroy’ — is predicated on the notion that causativization of ‘grow’ happens ‘in the syntax’, in an environment unique to verbs. Here’s how the argument goes.

2.3.1 The argument against the nominalization transformation

22) “that tomatoes grow” → ‘Nominalization transformation’ → “the tomatoes’ growth”

23) “that the army destroyed the city” → “Nominalization transformation → “The army’s destruction of the city”

24) (“that the army destroyed the city” → “Passivization transformation” → “The city was destroyed” → “The city’s destruction”)

→ Chomsky sees a problem!

25) “that John grows tomatoes” → Nominalization transformation → “*John’s growth of tomatoes”.

26) “That John amused the children” → Nominalization → “*John’s amusement of the children”

27) “That John amused the children” → Passivization → “That the children were amused” → Nominalization → “The children’s amusement”

→ Consequently, don’t want to do nominalization as a transformation of a sentence; would have no non-ad-hoc way to rule out nominalizations of perfectly good transitive verbs which in fact are bad.

→ Must be that the noun is in the lexicon *and causativization of the verb is a syntactic operation!* Consequently, causativization can’t feed nominalization.

The ‘lexicalist’ account proposed by Chomsky

grow = V

growth = N

Can now stipulate: there’s a generative, *syntactic* operation that adds an agent argument to Vs but not to Ns

→ If you added the agent argument to Vs in the lexicon, you’d be back in the same pickle as the transformationalist account — you’d have no non-stipulative way to distinguish those verbs that feed nominalizations from those that don’t!

‘If we derived words in the lexicon, we would derive transitive ‘grow’ there and nothing would prevent us from also deriving the nominalization ‘growth’ with transitive meaning. The only thing that could rule out transitive causative ‘growth’ then would be some stipulation, such as ‘don’t make nominalizations from verbs that are causatives of change of state verbs with internal causers’. The impossibility of causative ‘growth’ follows directly if derivational morphology is syntactic, rather than lexical, and if the only *structural* source of agents is a head (v-1) that verbalizes a root in its context”.

→ So no nominal transitive ‘growth’ — *grow* doesn’t have an inherent agent, and if it got one structurally, the whole thing would turn out to be a verb, because the only structural source of agents is also a verbalizing head!

→ Why not intransitive *destroy*? Pretty much comes down to what the words *mean*: the failure of intransitive *destroy* is a failure of the ‘colorless green ideas’ type, not of the ‘dog is the barked’ type. The failure of nominal transitive *growth* is similar, though the interpretive problem here is through a *lack* of material, not through a surplus of it.

“John, in ‘John’s destruction of the city’ and ‘John destroyed the city’ might receive similar interpretations through different syntactic means”

→ THIS is the upshot of Chomsky’s argument! The justification for the transformationalist approach was exactly that they got the same interp. Same interpretation, therefore same structural source for the interp. Chomsky says no, not necessary to conclude that!

(“there’s a further issue of whether the categories reflect features of the roots themselves or rather features of functional nodes that serve as the context for the insertion of the roots”; this is exactly the point of the Harley&Noyer Encyclopedia paper)

3 Some conclusions

Taking the morphology seriously: WYSIWYG morphology — if there’s complex morphology there, then there’s complex structure there, that has to get interpreted appropriately. Cf. *cabeuretor*, *transmission*. ‘transmission’ can’t mean what ‘blick’ can mean.

→ My fave case of this: wS Latinate roots in English: no resultatives, no v-Particle, no double object shift – because complex morphology = complex syntax)

Double-object benefactives of Anglo-saxon verbs: fine

bake y x,
show y x
take y x
cut y x
tell y x

but no benefactives of Latinate transitive verbs:

- *remove John the box ('deliver John the box' seems ok?)
- *relate John the story
- *divide Mary the cake
- *reveal Sue the secret

Verb-particle constructions fine with Anglo-saxon verbs

- write up
- eat up
- finish up

but not with Latinate ones

- *compose up/*arrange up ('divide up' is fine...)
- *consume up
- *complete up

Resultatives fine with Anglo-saxon verbs, but not Latinate ones

- cut it apart
- *divide it apart
- show it off
- *reveal it off
- press it flat
- *compress it flat (? ok).
- run/work yourself ragged
- *perambulate/compose yourself ragged

See Snyder & Stromswold, Pinker, and refs therein