

Psych Verbs and Zero Syntax

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- (1) The Linking problem (not again...)
- a. We puzzled over Sue's remarks.
 - b. Sue's remarks puzzled us.

Remember the 3 options: i) (a) and (b) are thematically identical, one is syntactically derived (Belletti & Rizzi 1988); ii) (a) and (b) are thematically distinct, neither is syntactically underived; iii) (a) and (b) are thematically identical, neither is syntactically underived (abandons UTAH).

Pesetsky: (i) is the correct approach.

Against the unaccusative analysis

- (2) The unaccusative analysis involves two assumptions:
- a. The subject position of ObjExp verbs is nonthematic.
 - b. The subject of ObjExp verbs is moved from an object position.

Pesetsky: Property (a) only holds for a small subset of ObjExp verbs. Property (b) holds for all of them. Does that imply that some ObjExp verbs involve movement to a θ -position? Unfortunately, yes.

- (3) Are psych passives of class II necessarily adjectival?

Recall that B&R had to make this claim, since unaccusatives don't have verbal passives. Pesetsky argues:

- a. Class II verbs do have verbal passives.
- b. Many unaccusatives don't have adjectival passives (so it's not clear why class II verbs should).
 - i. departed travelers, a fallen leaf, drifted snow.
 - ii. *an already occurred event, *recently grown interest,
*a frequently paused machine, *often stunk paint.

- (4) “Only verbal passives can host clitics in reduced relatives”.
[ex. (14) in B&R’s handout]

Pesetsky: The *by*-phrase can’t cliticize to *any* passive participle in a reduced relative; there’s nothing special about class II verbs. Since one can’t deny that the other verbs have verbal passives, the ban on cliticization here can’t motivate an adjectival analysis for class II passives.

- a. la sola persona che ne è stata uccisa.
The only person that by-it was killed
b. * la sola persona uccisane.

- (5) “Only verbal passives allow the auxiliary *venire* ‘come’”
[ex. (15) in B&R’s handout]

Pesetsky: *venire* diagnosed eventive predicates, not verbal ones. Class II verbs vary in their degree of toleranmce to eventive readings; some are perfect.

- a. Gianni venne spaventato da questa prospettiva alle cinque.
Gianni came frightened by this perspective at five

- (6) Class II passives in English: *Can* or *must* be adjectival?

Modifiers like *very/much* select the adjectival passive:

- a. The idea was much dicussed in the ’70.
b. We (*much) discussed the idea in the ’70.

Adjectival passives are stative; statives are incompatible with the progressive:

- c. The book was still being (*very) abridged when the order came through to publish it in its entirety.

- (7) Some class II verbs (*depress, worry, bore*) are stative already in the active, hence their incompatibility with the progressive in the passive is uninformative about their V vs. Adj status. Other verbs (*scare, alarm, shock*) clearly have eventive – hence, *verbal* – passives:

- a. Odd noises were continually scaring / ?? depressing Sue.
- b. Sue was continually being scared / ?? depressed by odd noises.

In fact, the progressive isn't a great test for (non-)stativity, because clearly stative verbs accept it:

- c. Karen is finally understanding this proof.
- d. Donald is finding your accusations ludicrous.

This special interpretation ("intermediate evaluation") isn't compatible with passive, for some reason:

- e. ?? This proof is finally being understood by Karen.
- f. * Your accusations are being found ludicrous by Donald.

Notice that the verbs in (c-d) are *not* unaccusative. The fact that their passives appear to be stative (and hence, adjectival) undermines the argument that the contrast in (a-b) is due to unaccusativity.

(8) More evidence

Disambiguation by *much*

- a. In those days, Bill was often being (*much) frightened by one thing or another.

P-selection

- a. Sue was continually being scared by/*of sudden noises.
- b. Sue was continually being annoyed by/*with sounds from the cellar.

Verb raising in Dutch and class II passives

(9) In the perfect tense, V and Aux may optionally invert. This is possible also with stative (SubExp) verbs, and in the passive.

- a. dat Jan zijn vader nooit echt gekend heeft / heeft gekend
that Jan his father never really known has / has known
'that Jan has never really known his father'
- b. dat hem de P.C. hooft-prijs toegekend werd / werd toegekend.
that to-him the P.C. Hooft prize awarded was / was awarded
that the P.C. Hooft prize was awarded to him'

Adjectives never raise:

- c. dat Jan de hele dag boos was / *was boos.
that Jan the whole day angry was / *angry was
'that Jan was angry the whole day'

Crucially, passives of class II may raise (the *by*-phrase forces the verbal passive):

- d. dat ik door het college geboeid werd / werd geboeid.
that I by the classes fascinated became
'that I got fascinated by the classes'

- (10) "Class II doesn't allow arbitrary *pro*, a diagnostic of external arguments"
[ex. (10) in B&R's handout]

Pesetsky: arbitrary *pro* (of the existential kind) requires an *agent*, not an external argument. Therefore, it's compatible with an agentive unaccusative and incompatible with a nonagentive transitive (despite the external argument).

- a. Sono vinuti a riparare il lavandino.
'Somebody came to fix the sink'
[Note: *essere* and rationale clause]
- b. * Ieri hanno ricevuto una telefonata.
'They received a phone call yesterday'
[Note: *avere* and nonagentive verb]

Backward binding and causatives

- (11) Backward binding is licensed not only by ObjExp verbs, but by any causative verb (explicit or not):
- a. Each other's supporters worried Freud and Jung.
b. Pictures of each other make us happy.
c. Pictures of himself give John the creeps.
d. Each other's criticisms forced John and Mary to confront their problems.
e. ? Each other's stupid remarks eventually killed John and Mary.

Problems for B&R: i) Exp is the causee in (b,c), which is not an argument of the verb. If inherent case depends on θ -marking, Exp can't get inherent accusative

from the verb. But structural accusative would violate BG. ii) If the Theme is an argument of the verb and Exp is the subject of a small clause, the latter doesn't c-command the former even at DS.

(12) Japanese analogues are morphologically complex, with a CAUSE morpheme.

- a. John-ga zibun₁-no kuruma-o kowasita koto-ga Mary₁-o odorok-ase-ta.
John.NOM self.GEN car.ACC broke fact.NOM Mary.ACC surprised-CAUSE-past
'The fact that John broke herself's car surprised Mary'

Moreover, the "Theme" – really a causer – behaves like an underived subject according to Miyagawa's (1989) test; it doesn't strand floating quantifiers.

(13) *Backward binding generalization*

A Causer argument of a predicate may behave as if c-commanded by an argumental DP governed by the predicate. To be continued...

(14) True unaccusative ObjExp verbs: Class III

These verbs select *essere*, form no passives (verbal or adjectival), and their postverbal subjects may launch *ne*-cliticization (like unaccusatives, and unlike unlike class II):

- a. Ne₁ sono piaciuti a Maria solo due t₁.
of-them pleased to Maria only two
b. * Ne₁ hanno preoccupato Gianni solo due t₁.
of-them worried Gianni only two

(15) Following B&R (and P&P 1984), Pesetsky admits that accusative case is compatible with unaccusativity. A few ObjExp verbs, which are superficially transitive, are in fact underlyingly unaccusative.

- a. * We were escaped by Smith's name for some reason.
b. * Panini was eluded by the correct generalization.
c. * Mary wasn't appealed to by the play.
d. * John was mattered to by this.

Causer, Target, Subject Matter

(16) If the unaccusative analysis fails for most ObjExp verbs, and if UTAH is valid, then we must refine our thematic analysis.

- a. Bill was angry at the article in the Times. *Target of Emotion*
- b. The article in the Times angered Bill. *Causer*

Pesetsky: “(b) is appropriate even if Bill thinks the article is splendid... the article does cause Bill to be angry, and possibly angry at someone or something, but he is not necessarily angry at the article itself”.

(17) T/SM \Rightarrow Causer ; \neg (Causer \Rightarrow T/SM)

- a. John worried about Mary’s poor health, but Mary’s poor health ddsn’t worry John. [contradiction]
- b. Mary’s poor health worried John, but John didn’t worry about Mary’s poor health. [noncontradiction]
(John’s could worry about the possibility of an epidemic)

(18) **Thematic hierarchy**: Causer >> Experiencer >> Target/Subject Matter

That’s the solution to the linking problem, without invoking unaccusativity.

The T/SM restriction

(19) Although Causer and T/SM are semantically distinct, they can’t cooccur:

- a. * The article in the *Times* angered Bill at the government.
- b. * The Chinese dinner satisfied Bill with his trip to Beijing.
- c. * Something Bill had said bothered Mary about her future.
- d. * The distant rumbling frightened Mary of another tornado.

Crucially, the intended meaning is perfectly intelligible, and in fact rendered grammatically with periphrastic causatives:

- e. The article in the Times made Bill angry at the government.

Verb particle psych verbs are also exempt from the T/SM restriction:

- i. The news cheered Sue *(up) about her plight.
 - h. The article really pissed Bill off at Mary.
- (20) A trivial solution: Perhaps the distinctions among Causer, Target and Subject Matter, although semantically real, are thematically invisible. In other words, θ -theory is too coarse-grained to distinguish among them, but still bans the cooccurrence of two nondistinct θ -roles (“Thematic Diversity”). Compare:

- a. * John ate the egg the candy.

Egg is a natural kind, *candy* is an artifact. That distinction, although crucial in other cognitive domains, plays no role in syntax. Both objects count as themes, and the sentence violates “Thematic Diversity”.

Pesetsky’s response: i) Denying a thematic distinction between Causer and T/SM eliminates the thematic solution to the linking problem, and forces a syntactic solution (unaccusativity), which was shown to be false. ii) On the simplest view, if Causer is nondistinct from both Target and SM, then the latter two should be also mutually nondistinct. But in fact they can cooccur:

- b. Sue is angry with Bill about the party.
- c. John is irritated at Mary about the mistake.

Enter zero morphemes

- (21) ObjExp verbs are semantically and morphologically complex. They arise from a combination of a SubjExp bound root and a causative affix: *annoy* = cause X to be annoyed. *annoy*: [[be-annoyed]-CAUSE]
CAUSE is overt in Japanese; in English it’s mostly covert, but sometimes overt:

-en (*frighten*, *sadden*); *en-* (*enrage*, *embitter*); *-ify* (*terrify*, *horrify*).

- (22) Zero morphology, adding semantic complexity, is also involved in a restriction on argument expression in “suggestive” predicates (Higgins 1973):

- a. John was angry at the guests.
- b. John’s tone was angry (*at the guests).
- c. John was nervous about the exam.
- d. John’s behavior was nervous (*about the exam).

Pesetsky: If these facts fall together with the T/SM restriction, then Thematic Diversity has nothing to offer; the subject and object in (b,d) clearly bear distinct semantic roles.

Bill was angry ; Bill's manner was [angry +SUG] ("suggested anger").

On the reality of bound psych roots

If *annoy* = $\sqrt{\text{annoy}} + \text{CAUS}$, we expect to find $\sqrt{\text{annoy}}$ in other, noncausative environments. The evidence comes from nominalizations.

(23) Class II verbs don't have causative nominalizations (Lakoff 1970).

- a. Bill's continual agitation about the exam was silly.
- b. Mary's constant annoyance about/at/with us got on our nerves.
- c. * The exam's continual agitation of Bill was silly.
- d. * Our constant annoyance of Mary got on our nerves.

Note: These are not result nouns, but argument-taking nouns, that simply lack any causative force. The question is why. If *annoyance* is directly derived from *annoy*, why is it not causative?

Answer: *annoyance* is not causative because it is directly derived from the root $\sqrt{\text{annoy}}$, which is itself not causative. That's evidence for the reality of this root.

Question: Why can't [$\sqrt{\text{annoy}} + \text{CAUS}$] be the input to nominalization?

(24) More impossible nominalizations

- a. your anger / your remarks were angry / *your remarks' anger
- b. her optimism / her expression was optimistic / *her expression's optimism

(25) The (im)possible nominalizations have the following form:

- a. [[[$\sqrt{\text{SubjExp-predicate}}_V$]($*\emptyset_{\text{CAUS}}$)] nominalizer]
- b. [[[$\sqrt{\text{SubjExp-predicate}}_A$]($*\emptyset_{\text{SUG}}$)] nominalizer]

(26) *Myers's generalization*

Zero-derived words do not permit the affixation of further derivational morphemes.

Note: In the rest of chapter 3 Pesetsky argues, following Fabb (1988), that Myers's generalization is epiphenomenal (and indeed, violated by the suffixes *-er* and *-able*) and that the relevant generalizations constrain the type of affixes that can attach to *CAUS* rather than *CAUS* itself. He devises a complex system where each nominal suffix is lexically associated with distributional restrictions. The fact that zero morphemes, including *CAUS*, disallow further affixation is thereby decomposed into many smaller facts about specific nominalizers.

What about the T/SM restriction? (fragments from chapter 6)

(27) The gist

- a. * The article in the *Times* angered Bill at the government.
 - i. VP-structure is a cascade.
 - ii. Causer is generated as the lowest argument, introduced by CAUS.
 - iii. CAUS is an affix that must attach to V.
 - iv. In the cascade of (a), CAUS and V are separated by P (*at*).
 - v. The structure violates either the Head Movement Constraint or the Stray Affix Filter.

(28) Evidence for cascades: C-command & coordination

- a. John spoke to Mary about these people₁ in each other's₁ houses.
- b. Mary danced in no city with any prominent citizen.
- c. Sue will speak to Mary about [linguistics on Friday] and [philosophy on Tuesday].

Chapter 5 of *Zero Syntax* provides ample evidence for right-branching VP structures all the way to the bottom. Systematically, rightward \Rightarrow downward.

Prepositions (*about* in (a), *in* in (b)) are usually ignored for c-command. Pesetsky proposes to take them seriously. But if prepositions are visible to c-command, the only way they won't interfere in (a,b) is if they are detached from their objects. This will also allow two DPs to share a preposition, as in (c). That's the motivation to cascades.

Obviously, cascades destroy constituency relations that are considered vital for θ -marking and for movement. As to θ -marking, Pesetsky devises a system where a head can select either its sister or the Spec of its sister. As to movement, Pesetsky assumes that parallel to the cascade structure, a traditional

left-branching structure exists (“layered syntax”), which is targeted by movement. In effect, every sentence has a dual life – layered or cascade.

- (29) Important claim: The Causer introduced by CAUS is the lowest argument.

Analogy: a. Sue yelled *out of* frustration.
 b. John died *of* consumption.

Since CAUS is a verbal affix, it must raise to V. Movement of CAUS is blocked by any intervening non-affixal P (recall that prepositions do intervene in cascades), and skipping P is blocked by the Head Movement Constraint. See structure [513], p. 1999.

- (30) More evidence: Oherle’s effect

a. Interviewing Nixon gave Mailer a book.
b. * Interviewing Nixon gave a book to Mailer.

The causative sense involves affixation of CAUS to *give*, blocked in (b) by the intervening *to*. Independent evidence for the presence of CAUS in causative double object verbs comes from the (now familiar) lack of nominalizations:

c. Bill’s/*our efforts’ gift of a new building
d. Sue’s/*the smile’s rental of the apartment

Residue: Backward binding and thematic subjects

Because the Causer in class II originates below the Exp, backwards binding is explained; just like in B&R’s analysis, condition A is satisfied at DS. Moreover, any causer will have this property, not just in class II predicates.

- (31) A paradox: Pesetsky has destroyed the unaccusative analysis. He now seems to resurrect it to account for backward binding and the T/SM restriction (both of which require a low, internal Causer).

“Solution”: CAUS has an identical counterpart on V, which projects an external Causer (see ex. [530], p. 209). CAUS affixation is an instance of checking. Movement of the Causer from one θ -position to another is licensed because the two θ -roles are identical.