CPs and their associates
Day 4–5
Pronominal associates: prolepsis and expletives

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ACTL ∼ 26–30 June 2023
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The constructions of interest involve a pronoun (e.g. *it*) + an associated CP.

- There are broadly two types:
  1. Quasi-argumental subject *it*+CP with verbs like *seem/appear*, as in (1).
     - These are often treated as purely expletive in textbooks, but we will see *some* evidence that they are more argument-like than expletives.
  2. Proleptic argumental *it*+CP as in (2).

(1) Quasi-argument *it*+CP
It seems/turns out/appears $[_{CP}$ that Nino broke his leg].

(2) Proleptic argumental *it*+CP
a. Nino regrets **it** $[_{CP}$ that he broke his leg].
b. weil Peter **es** bedauert, $[_{CP}$ **dass er krank ist**]. German
because Peter it regrets that he ill is
'because Peter regrets (it) that he's ill'

1 Expletive, quasi-argument, and argument

Traditional (e.g. Chomsky) analysis: the default 3rd person expletive *it* is, just like locative expletive *there*, in being a purely formal expletive, to satisfy EPP (the requirement that finite clauses have overt subjects):

(3) a. It seems that Nino broke his leg.
b. There appears to be a bird in the room

Contrasts between *it* vs. *there* (similar contrast in Danish and Dutch between):

(4) *There* + associate DP

a. There/*it is a tree in the garden.
b. There/*it emerged a solution.
c. There/*it was a cake baked.

(5) *It* weather verbs/ or + associate CP

a. It/*there snowed.
b. It/*there seems that Shayne made the coffee.
c. It/*there was claimed that Buhan wrote the article.

Formal feature view of the contrasts in (4)-(5)

Chomsky (2000, 2001):

- T has an uninterpretable ϕ-feature [uϕ] that must be valued via agreement with a DP
- DPs bear interpretable ϕ-features and uninterpretable case features
- Failure to check agreement and Case results in ungrammaticality
- Assumptions about *it* vs. *there*:
  - *there* can't be a target of agreement
  - expletive *it* has valued ϕ-features

(6) $T_{[u\phi]}$ ... [There is $[DP_{[\phi]}]$]
↪T agrees with the DP associate and checks its case (*there* is not a target for agreement)

(7) *$T_{[u\phi]}$ ... [$it_{[\phi]}$ is $[DP_{[\phi]}]$]
↪ T probes and agrees with highest DP (*it*), leaving the DP associate Case unvalued

(8) *$T_{[u\phi]}$ ... [There snowed]]
↪Nothing to value T (no DP at all)

(9) $T_{[u\phi]}$ ... [$it_{[\phi]}$ snowed]]
↪*it* values T

(10) *$T_{[u\phi]}$ ... [there seems CP]
↪Nothing to value T(no DP at all)

(11) $T_{[u\phi]}$ ... [$it_{[\phi]}$ seems CP]
↪*it* values T

On this analysis, both *it* and *there* are not selected arguments - they just arise for EPP but in different configurations driven by case/agreement differences.

Ruys-Longenbaugh arguments against formal feature account

Ruys (2010):

The 3rd person and the locative 'expletives' in Danish and Dutch are in free variation with some CP associates (depending on CP-taking predicate):

(12) Der/det blev sagt [$_{CP}$ at du ville komme] Danish
there/it was said that you will come
'It was said that you will come'. (Vikner 1995: 243f.)

- Otherwise, the *der/det* distinction holds in Danish.
- This wouldn't be accounted for on the formal feature account.

Another of Ruys' arguments comes from impersonal passives (passive of an unergative — no argument promoted). (True for both Dutch and Danish)

(13) er/*het wordt gedanst Dutch
there/*it was danced
'There was dancing' (Ruys 2010: 143)

- There's no argument to agree with so why would *er* 'there' appear—it should fail to value ϕ on T.

Longenbaugh (2019):

Proleptic pronouns with CP associates: don't allow *there* and the pronoun is optional.

- optionality not expected on formal features view

(14) a. Joan regrets (it/*there) that John was fired.
b. Sally hates (it/*there) that Sue got the job.
(Longenbaugh 2019, 106:(8))

Longenbaugh-Ruys proposal: All *it*s are selected!

Both Longenbaugh-Ruys propose that *it* is **selected** by the predicate/verb in *all* cases below:

(15) a. Quasi-argument *it*
   (i) Weather-*it*
   It snowed.
   (ii) *It* + CP selected by *seem*-type verbs
   It seems that [$_{CP}$ Nino broke his leg].
b. Proleptic *It* + CP
   (i) He regrets **it** [$_{CP}$ that Nino broke his leg].
   (ii) **It** was regretted [$_{CP}$ that Nino broke his leg].

Longenbaugh-Ruys proposal:

a. [it [*v* [V (CP)]]]
θ-marking (θ-marking)

b. [*v* [V it$_i$] CP$_i$]
θ-marking

subject proleptic it:

It_i demonstrates nothing [that Jones was in the ballroom]_i.

On this proposal:

- (a) quasi-*it* is a **separate argument from the CP**
- (b) proleptic *it* **is the one argument**—the CP is merely 'linked' to it

This explains differences in optionality between the two types:

(16) a. *It appears.
   b. *That John is guilty seems.

(17) a. Mia regrets it.
   b. Mia regrets that Nino broke his leg.

- Note though: there are other explanations for (16b) — what are they?

Further differences between quasi-argument and proleptic *it*

As-parentheticals

As-parentheticals involve a gap, which incidentally must be a CP gap (we saw this yesterday in the context of sentential subjects):

(18) The results were fantastic, as Albert boasted/commented/complained
cf. *Albert boasted/commented complained something.

Longenbaugh (2019) The two types of *it*+CPs diverge with respect to *as*-parentheticals:

- Quasi-argument *it* (with *seem* type predicates) requires the pronoun (19)
- Proleptic *it* cannot co-occur with an *as*-parenthetical gap (20)

(19) *Quasi-argument it*
a. Sue is innocent, as *(it) originally appeared.
b. Mary is a capable doctor, as *(it) has seemed from the start.
(Longenbaugh 2019, (22))

(20) a. The arguments were flawed, as Bill explained (*it) to me.
b. Three is a prime number, as Mary definitively proved (*it) to me.
c. Sally is guilty, as (*it) was expected.
d. Bill came on time, as (*it) was important.
(Longenbaugh 2019, (23))

Longenbaugh's explanation:

- the gap in the *as*-parenthetical must be a CP argument gap, and one in which a proposition is selected.
  - this is the complement argument position of *seem*
  - this is the (unique) complement argument position of prolepsis-allowing verbs (e.g. *regret*, *explain*) in which case that argument position must be a gap (so *it* is disallowed)

This does not prove that quasi-*it* is a selected argument, but it does suggest that proleptic *it* is the true argument, not the associated CP.

Free relatives

Quasi-argument *it* and proleptic *it* constructions differ in free relative constructions (Bresnan 1972; Ruys 2010; Longenbaugh 2019):

(21) a. *What (it) seems is that John isn't here.
b. *What Bill said (it) appears is that Mary will give a talk after all.

(22) a. What Bill explained (*it) to me is that Sue is his friend.
b. What (*it) was claimed is that Bob betrayed Jill.

Besides the basic fact that there *is* a difference here, the difference can (somewhat) be made sense of under the Ruys-Longenbaugh view:

- The *wh*-word in the free relative must leave a gap that semantically corresponds to the meaning of the post-copular CP
- further, that gap must be a DP-compatible gap (*what* is a DP)
  - Quasi-argument *it* constructions:
    - In the quasi-argument *it* construction, the complement position (e.g. of *seem*) does not tolerate a DP gap, so that position cannot be the gap
    - The quasi-argument *it* is not the propositional argument (and may not be a referential argument at all) so the position of *it* cannot be a gap
  - Proleptic *it* constructions:
    - The argument position that correponds to the propostional meaning of the post-copular CP is the one filled by *it*, so that must be the gap
    - The associated CP in non-argument position is not one a DP gap can be in (cf. *We regretted it that fact)[1]

Note again, that none of this really proves that *it* in the quasi-argument *seem/appear* cases is selected (we'll talk about that below).

It does offer good evidence, however, for the argument status of proleptic *it* (and that the CP associate there is not the 'true' argument).

Stepping back to bigger picture

Rothstein, Susan D. "Pleonastics and the interpretation of pronouns." Linguistic inquiry (1995): 499-529.

- in proleptic *it* constructions, *it* is in argument position, the associated CP is not
- in quasi-argument *it* constructions, things are less clear, but Ruys-Longenbaugh claim both *it* and the CP are **distinct** selected arguments.

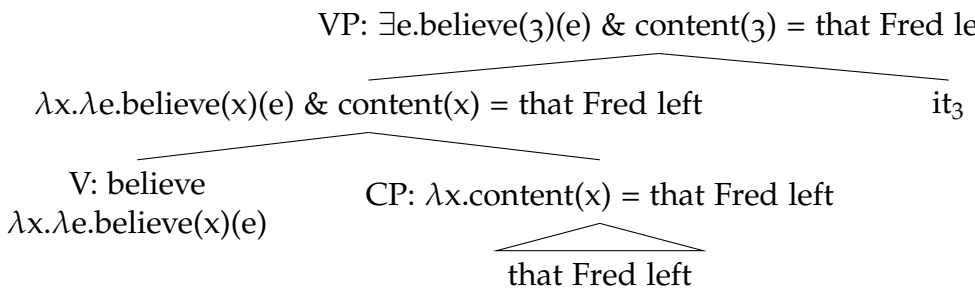
[1] This is not quite Longenbaugh's explanation ultimately, but it suffices for us.

2 Longenbaugh's proposal for Proleptic *it* constructions

Longenbaugh (2019) adopts the CP predicate hypothesis.

- The CP associate merely restricts the internal argument of the embedding verb, using the compositional mechanism Restrict from Chung and Ladusaw.
  - The predicate expressed by the CP restricts the denotation of the argument it shares with the verb[2]
- unlike the other handout, here I show the meanings with event arguments and severing the external argument (Kratzer 1996)
- the pronoun (whose meaning here is just an index 3) saturates the propositional argument
  - under an assignment function (not shown) 3 denotes some propositional content (like a claim, idea,...) that is salient in the discourse

(23) We [believed it that Fred left]



- Rightward extraposition of the CP derives the word order.

[2] *Restrict* here is defined as (Longenbaugh 2019):

(i) If α is a branching node with daughters $\{\beta, \gamma\}$ such that $[\![\beta]\!]$ and $[\![\gamma]\!]$ are n and m place predicates respectively with $m \leq$ n, and each argument of x_i of $[\![\gamma]\!]$ corresponds to a unique argument y^i of $[\![\beta]\!]$, then $[\![\ \alpha\ ]\!] = \lambda y_1 \ldots \lambda y_n\ [\![\beta]\!](y_1)\ldots(y_n)\ \&\ [\![\gamma]\!](y^1)\ldots(y^m)$

At least one problem (identified and acknowledged by Longenbaugh):

Over-generates:

(24) a. *Generated*: We regret [that Fred left] [the fact]
b. *after extraposition*: We regret t_i [the fact] [that Fred left]$_i$

(24b) sounds like (25) on the surface, which would be ok, but (25) is complex NP structure and (24b) is not:

(25) We regret [the fact that Fred left]

If sentences could have the parse in (25b) then we would expect extraction would be possible. Why? Let's see:

Extraction facts:

- the CP associate of *it* is permeable for extraction (26b) (baseline: (26a))

(26) a. He saw to it that the bishop was introduced to the actress.
b. It was the actress that he saw to it [that the bishop was introduced to __]
(Postal and Pullum 1988: 661)

- extraction from complex NP is generally degraded: Complex NPs are islands (there is more nuance, which we return to below).

(27) a. I rejected [the claim [that the director was frustrated with the actor]].
b. *It was the actor who I rejected [the claim [that the director was frustrated with __]]?
c. It was the actor who I claimed [that the director was frustrated with __]?

(The * here is simply meant to indicate a DIFFERENCE from the baselines)

- Since you CAN extract from the CP associate, but not a complex NP, then we need to ensure that the string *[We regret the fact that Fred left]* cannot make use of the same syntax as proleptic constructions.
  - but nothing in Longenbaugh's account prevents this.

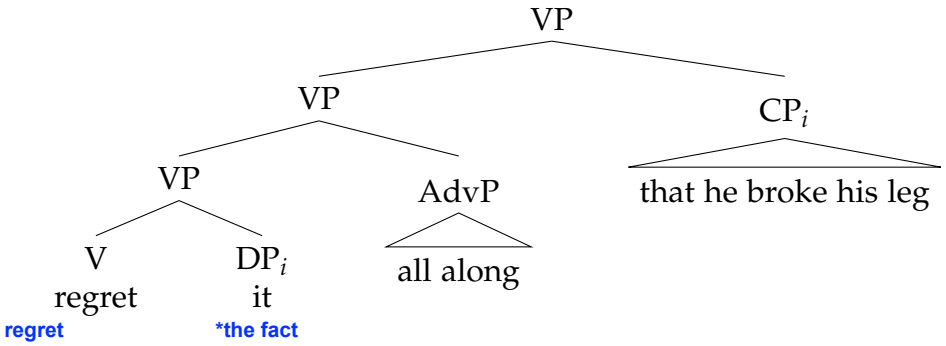
We will return to the extraction facts below, since they are informative for analyzing proleptic constructions.

3 Other analytical options for proleptic *it* constructions

3.1 Co-indexed adjunct account

Bennis (1986)

- The CP is a (base-generated) adjunct that binds/is co-refrent with the pronoun
- the relationship between CP and *it* is one of co-reference not any sort of movement relation



Longenbaugh (2019) provides two arguments against this approach:

- First, adjuncts are expected to block extraction (28) but CP associates in proleptic constructions are not islands for extraction (29b) (baseline (29a)):

(28) *It was the actress that he went to a movie [becuase the he wanted to see __]

(29) a. He saw to **it** [that the bishop was introduced to the actress].
b. It was the actress that he saw to **it** [that the bishop was introduced to __]
(Postal and Pullum 1988: 661)

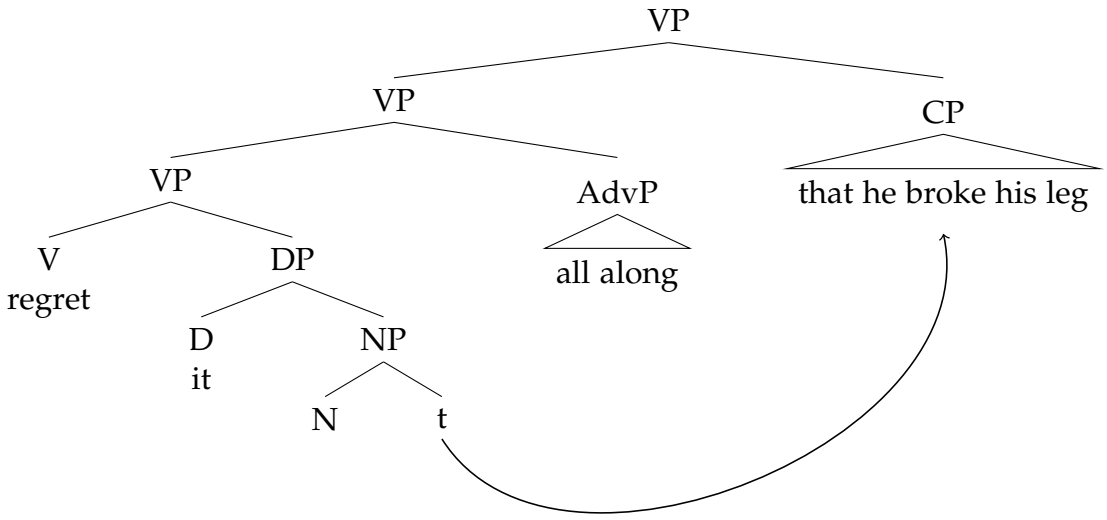
- Second, the relationship between the CP and the proleptic pronoun should not be modelled like a co-reference dependency because...
  - co-reference dependencies are un-bounded—meaning we could expect *it* and the CP to be arbitrarily far apart
  - In (30) the CP associate is adjoined to the highest clause (forced to avoid a Condition C violation wrt *Bill*); but the pronoun *it* is in a lower clause—the result is ungrammatical.
  - we can draw this sentence — it's hard.

(30) *Sue [$_{vP}$ mentioned the fact [that he$_j$ regretted it$_i$]to me] [$_{CP}$, that I picked Bill$_j$ up at five]$_i$
(Longenbaugh 2019, 113 (30))

3.2 Complex NP analysis

Rosenbaum (1967); Angelopoulos (2023)

- The CP merges as part of a DP/NP (possibly with a null N) and then extraposes out of the DP/NP
- Pronouns are Determiners (Postal 1966 et seq)



This likens prolepsis to bona fide CP extraposition from Complex NPs, as in:

(31) a. We rejected [the claim __] very strongly [$_{CP}$ that there was anything wrong].
b. Bob made [the claim __] according to the lawyer [$_{CP}$ that the defendant was innocent].

Two arguments against complex NP approach:

1. Longenbaugh (2019) offers an argument against the Complex NP construction by comparing it to bona fide extraposition from NP:

- In some cases, CPs resist being extraposed from complex NPs (32a), but the counterpart proleptic construction requires it (32b)

(32) a. I regard the claim (that Bob stole your money) as false (??that Bob stole your money).
b. I regard it (*that Bob stole your money) as false (that Bob stole your money). (Longenbaugh 2019, 113, (30))

2. **Extraction again!** Postal and Pullum (1988) argue against assimilating prolepsis to extraposition from a complex NP.

- extraction from complex NP is generally degraded: Complex NPs are islands (Ross 1967) (we've seen this data just above in (26) and (27)).

Angelopoulos (2023) gives a (modified) complex DP analysis to clausal prolepsis sentences in Dutch:

(33) Pieter betreurt/zegt **het** dat Marie WEGgaat.
Pieter regrets/says it that Marie goes-away.
'Peter regrets/says it that Marie becomes famous.' Sudhoff (2016)

But in Dutch, unlike English, Angelopoulos reports that wh-extraction from the CP associate is ungrammatical (34b). ((34b) is the baseline grammatical condition without clausal prolepsis — just a plain CP complement.)

(34) a. *Wat betreurde/ bevestigde/ zei jij **het** [$_{CP}$ dat hij gezegd had]?
what regretted confirmed said you it that he said had
'What did you regret/confirm/say it that he has said??
b. Wat betreurde/ bevestigde/ zei jij [$_{CP}$ dat hij gezegd had]?
what regretted confirmed said you that he said had
'What did you regret/confirm/say that he has said??

Cross-linguistic differences: maybe the complex NP approach is correct for Dutch but not English.

3.3 Not so fast about English extraction!

We should be careful about what kind of extraction we use to test complex NP islands.

- Many islands are weak, in that argument extraction is better than adjunct extraction.
- Complex NPs can tend to exhibit this asymmetry according to some people (following examples from Bošković (2015).

(35) a. ??What did you hear rumors that John bought __?
b. *How did you hear rumors [that Jill bought a house __]
intended meaning: how did she buy the house according to the rumor

If extraction from CPs in proleptic constructions is not island sensitive at all (as per Longenbaugh) then we shouldn't expect a difference

- Factorial definition of islands (Sprouse, Wagers, and Phillips 2012) very helpful here.
- Is there an interaction, i.e. does a adjunct-argument asymmetry exist in propleptic constructions above-and-beyond whatever independent degradation comes from adjunct extraction generally and from using the more complex proleptic form generally?

(36) A factorial design — judgments not given

a.	What did you say it that Alex bought __?	arg, +prolepsis
b.	What did you say that Alex bought __?	arg, -prolepsis
c.	Why did you say it that Alex bought a house __?	adjunct, +prolepsis
d.	Why did you say that Alex bought a house __?	adjunct, -prolepsis

3.4 New arguments against extraposition account (Moulton, in prep.)

In addition to proleptic *it*, propleptic *that* can be used, often very colloquially:

(37) a. I hate that that Betty left so early.
b. That stinks that Betty left so early.

This *that* is indeed the argument, and the CP some type of associate, becuase it must be selected by the predicate.

- *seems* doesn't select DP, and doesn't allow *that* prolepsis (38), whereas predicates that allow proleptic *that* also select DP (39).

(38) a. *This/it/that outcome seems.
b. *That seems that Betty left. (cf. It seems that Betty left)

(39) a. This/it/that outcome sucks/stinks/blows
b. That sucks/stinks/blows/surprised me that Betty left.

The free relative tests also place *that*-prolepsis in the same category as *it*-prolepsis.[3]

(40) a. *What that sucks is that Betty left.
b. What sucks is that Betty left.

Crucially, the proleptic demonstrative is in subject position—which would mean this **is extraposition from subject**.

- CP extraposition from subject is notoriously subject to ill-understood information structural conditions.
- For instance, extraposition from definite subjects (including demonstrative ones) are odd without a very particular contextual support (see e.g. Huck and Na 1990; Maynell 2008 and references therein).
- This can be appreciated by the Complex NP versions in (41a) and their degraded extraposition (41b), as compared to proleptic *that* (41c). (Same demo in (42))

(41) a. The/?that fact that Ani arrived early was really surprising.
b.???the/that fact was really surprising that Ani arrived early.
c. That was really surprising that Ani arrived early.

(42) a. The/?that fact that Nino broke his leg really sucks.
b.???The/that fact really sucks that Nino broke his leg.
c. That really sucks that Nino broke his leg.

[3]For independent reasons the *as*-parentheticals do not work. See Stowell 1996.

(There's something I can't put my finger on going on with *the* vs. *that* which is confounding things here. TBD.)

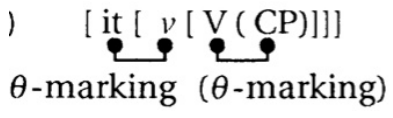
- Upshot: proleptic *that* constructions further call into doubt the extraposition from NP analysis (at least for English)

4 Quasi-expletive *it*

(43) *Weather-it*
It snowed.

(44) Quasi-argument *it* + CP
It seems/appear that Nino broke his leg.

Ruys (2010) and Longenbaugh (2019) propose that the expletive in both cases is selected, a type of external argument:

(45)


The idea that *weather-it* is somehow more like an argument was suggested already by Chomsky (1981).

- But what is the meaning of this argument? What theta-role does it bear?
  - Chomsky: it bears a quasi-argument role. (explanation?)
- I think we can set aside the semantic question and ask how it patterns.

Chomsky's 1981 evidence for argument status of weather *it*: Control

- assumption of control theory: PRO can only be bound by a theta-marked DP

(46) a. They forced it [PRO to rain]
b. It sometimes rains [after PRO snowing]

We need the *there* (a 'true' expletive) as a control:

(47) a. *There emerged a question before [PRO$_{there}$ emerging a solution].
b. *There was a man in the room without [PRO$_{there}$ being a door to let him in].
(Longenbaugh 2019, 134 (103))

What about CP associate *it*?
Various authors have claimed that *it* in *seems*+CP constructions also control PRO (Hornstein 1999; Shahar 2008; Longenbaugh 2019).

(48) a. %It$_1$ seemed that Clinton won re-election without PRO$_1$ appearing that he had won a majority.
(Hornstein 1999: fn. 29)
b. %It$_1$ now seems that John is guilty, despite [PRO$_1$ originally appearing that he was innocent].
(Longenbaugh 2019, 136 (108b))

Longenbaugh reports speaker variation. (FWIW, I am not sure I accept these).

Relevant controls without *it*:

(49) a. *Clinton won reelection without appearing that he had won a majority.
b. *John is guilty despite originally seeming that he was innocent.
(Longenbaugh 2019, 136 (109))

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