What is it possible to extract? Clausal prolepsis and the DP shell hypothesis

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Adverbial Clauses in Argument Positions, Freie Universität Berlin, 5 April 2024

1   Clausal prolepsis

In clausal prolepsis constructions, CPs are 'doubled' by a pronoun in argument position.

(1)   a.   I regretted **it** that I left early.
      b.   **It** stinks that it's raining.

Prolepsis is also a feature of some adverbial clauses that (may) enjoy an argument position (Williams, 1974; Pesetaky, 1991):

(2)   a.   I would hate **it** if Mary hired Bill.
      b.   He loves **it** when there's a buffet.

The DP shell analysis

- The CP is merged within a DP/nominal shell (Kiparsky and Kiparsky, 1970; Hinterwimmer, 2010; Angelopoulos, to appear, among others).

- *It* is a determiner (Postal, 1969).

- The CP extraposes rightward.

    - Choice point: NP layer (more below)
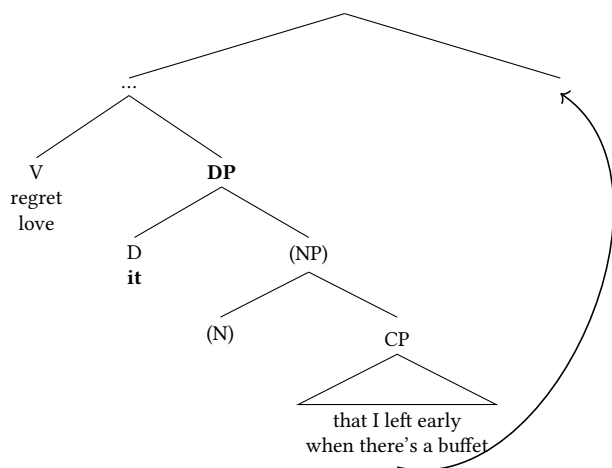
Two bad predictions for English

- The DP shell analysis has been defended for Dutch and German (recently by Angelopoulos to appear) and Icelandic (Thráinsson, 1979; Wood, 2012).

- It has generally been **rejected as untenable for English** on the grounds that it incorrectly likens clausal prolepsis to complex NPs (Postal and Pullum, 1988; Longenbaugh, 2019).

#1. Extraposition is required for proleptic constructions whereas extraposition from complex NPs is optional and very often marked (esp. with subjects) (Longenbaugh, 2019)

(3)   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 is possible from English proleptic constructions, which is unexpected for complex NPs.

(4)   a.   I didn't like it at all that he cooked and ate my pet hamster.
       b.   ?It was my pet hamster which I didn't like it at all that he cooked and ate.   (Postal and Pullum 1988: 661(70))

(5)   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(71))

- By contrast, extraction is *not* possible from Dutch proleptic constructions (also Icelandic) [1].

(6)   Wat betreurde/ bevestigde/ zei jij (**het**) [$_{CP}$ dat hij gezegd had]?   *Dutch*
       what regretted   confirmed   said you it   that he said   had
       'What did you regret/confirm/say it that he has said?'   ([Angelopoulos, to appear](), fn. 21)

The DP shell analysis then may be correct for languages like Dutch ([Angelopoulos, to appear]()) but not English.

Not so fast about English...

- Examples of extraction are not properly controlled for: need comparative baselines of complex NPs and simple CPs.
    - It is sometimes reported that CNPC violations are merely marginal, esp. wrt adjunct extraction:[2]

(7)   a. ??What did you hear rumors that John bought?
       b. *How did you hear rumors that John bought a house?   ([Bošković, 2015](): 604(2/3))

The point of my talk today

I want to argue that a **DP shell analysis might not be implausible**, based on evidence that extraction *is* compromised, and compromised in ways that suggest a DP shell.

- Acceptability Judgment study: argument extraction from prolepsis is better than extraction from complex NP, but still degraded compared to baseline.
- DP island effect: strengthening the "definiteness" of the proleptic proform with *that*-prolepsis reduces acceptability of extraction.

A D+CP analysis of prolepsis - no NP layer (e.g. [Hinterwimmer, 2010]() and others).

(8)   [$_{DP}$ it [$_{CP}$ that ...]]

- Following [Bošković (2015)]() and [Sichel (2018)](), it is the presence of the NP layer that creates a CNPC violation
- Proleptic constructions are merely (definite) DP islands, not complex NP islands

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Outline

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[1]French behaves like English, with differences depending on the pronoun *il* vs. *ce* ([Zaring, 1994]())
[2]Note these are not the classic *make the claim* cases, for which [Ross (1967)]() already noticed amelioration. See ([Davies and Dubinsky, 2003]()).

2 Proleptic *it* and quasi-expletive *it* (Ruys, 2010)

Ruys (2010) and Longenbaugh (2019): no *its* are expletive, but they come in two types:

(9) **Quasi-argument *it***: *it* and CP are distinct arguments
It seems/turned out/appeared [$_{CP}$ that the train was on time].   (also meteorological predicates)

$$[\text{ it } [\; v \; [\; seem \; \text{ CP }]]]$$
(with θ-role arcs) (Longenbaugh, 2019)

(10) **Proleptic *it***: *it* bears the unique theta-role, to which the CP is 'linked'
    a.   I regret **it**$_i$ [$_{CP}$ that there are no handouts left]$_i$.
    b.   **It**$_i$ stinks [$_{CP}$ that he left early]$_i$.

$$[\; v \text{ love } \; it_i \; \text{ CP}_i \;]$$
(with θ arc) (Longenbaugh, 2019)

The following arguments from Ruys (2010) and Longenbaugh (2019) support this distinction.

Optionality

(11) *Quasi-argument it*
    a.   It seems *(that the train was on time).
    b.   *That the train is on time seems.

(12) *Proleptic it*
    a.   I love it.
    b.   I love that the train was on time.

Pseudo-cleft constructions

Quasi-argument *it* and proleptic *it* constructions differ in pseudo-cleft constructions (Bresnan, 1972; Ruys, 2010):

(13) *Proleptic* it *must be gapped*
    a.   What Bill explained (*it) to me is that Sue is his friend.
    b.   What (*it) was claimed is that Bob betrayed Jill.

(14) *Quasi-argument* it: *no gap licensed*
    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.

- Proleptic *it* stands for the propositional argument, and so must be gapped in (14).

- Quasi-argument *it* does not serve as a propositional argument, so gapping it in a pseudo-cleft construction like (13) is semantically incoherent (alternatively, if the gap is in the complement position, there is no case available for *what*).

As-parentheticals

As-parentheticals involve a gap which can be interpreted as the propositional argument of a predicate.

(15)   The cheese is great, as we all agree ___.

In quasi-argument *it* constructions, the CP argument is gapped and *it* can and must remain.

(16)   *Quasi-argument* it-*constructions*
   a.   Sue is innocent, as *(it) originally appeared ___.
   b.   M. is a capable doctor, as *(it) has seemed ___from the start.   (Longenbaugh, 2019, (22))

In prolepsis constructions, an *as*-parenthetical gap **cannot** co-occur with *it*, because *it* stands in for the propositional argument.

(17)   *Proleptic* it-*constructions*
   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.   Bill came on time, as (*it) was important.   (Longenbaugh, 2019, (23))

Conclusion: in proleptic *it* constructions, *it* is the theta-marked argument while the CP is merely 'linked' to it.

Hypothesis A/Hypothesis B

There are two recent accounts that capture the argument status of proleptic *it*.

A. The two-constituent analysis

- Longenbaugh (2019) likens proleptic constructions to those where one phrase *restricts* an argument and another phrase saturates it in the manner of Chung and Ladusaw (2003): *They mountain-climbed Kilimanjaro.*
- The CP restricts the embedding verb while the *it* saturates as the 'true' argument.
  - This relies on the predicate analysis of CPs, where CPs denote predicates of individuals with propositional content (type $\langle e\langle s,t\rangle\rangle$), not propositions $\langle s,t\rangle$ (Kratzer, 2006; Moulton, 2009, 2015; Elliott, 2020; Bondarenko, 2022).
- The CP extraposes rightward.

Syntax
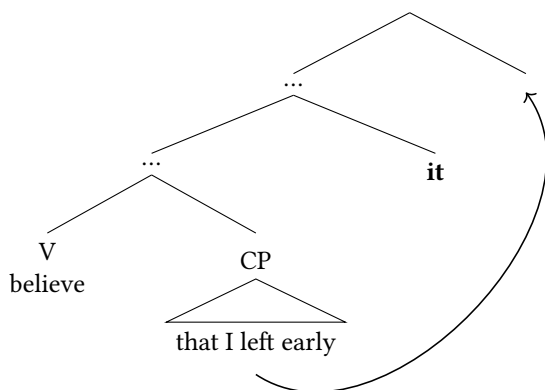
Semantics
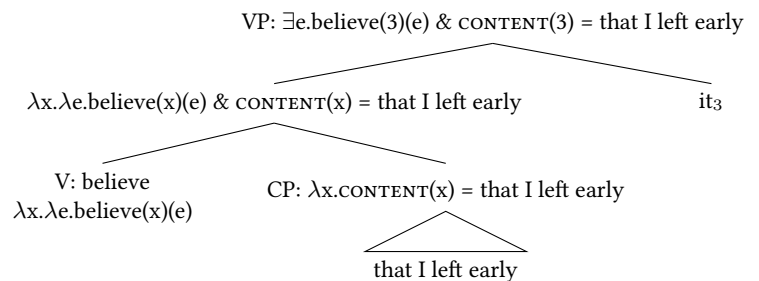
- under an assignment function 3 denotes some propositional content (like a claim, idea,...) that is salient in the discourse whose content is that I left early.

B. The DP shell analysis

- The CP is merged within a DP shell
- *It* is a determiner, like all pronouns ([Postal](), [1969]()).
- The CP extraposes rightward.
- NP layer: variation in literature or type of prolepsis ([Angelopoulos, to appear]())
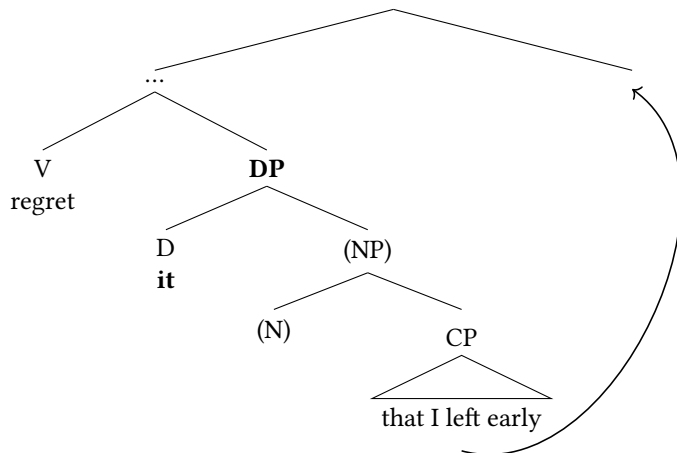
First pass on extraction:

- Proleptic constructions are selective islands ([Stroik](), [1996]()), allowing argument extraction more easily than adjunct extraction.
- Note that this holds outside of factive embedding verbs (which are independently selective).[3]

(18)   a. ?What did Vij see to it that the kids cleaned ___in the playroom.
          b. *How carefully did Vij see to it that the kids cleaned ___the playroom?

(19)   a.   Who would it surprise John to find ___in his living room?
          b. ?How would it surprise John to find his dog ___?

While not addressed by ([Stroik](), [1996]()), the selective island effects appear to hold for proleptic *it* constructions, not quasi-argument *it*.

(20)   a.   How quickly does it appear/seem that Sam ran the race?   Quasi argument *it*
          b. ?How quickly is it possible/clear/important that Sam ran the race.   proleptic *it*

While there exists more than one source of selective islands, DPs exhibit an adjunct/argument asymmetry too ([Chomsky](), [1986]()).

(21)   a.   Of which city did you read reports?
          b. *?From which city did you meet celebrities?

- It is not clear how a two-constituent analysis would handle the weak island behaviour.
- Furthermore, selective/weak islands are sometimes also weak in the sense that argument extraction is marginal compared to bridge contexts.
  - As noted, [Longenbaugh]() ([2019]()) and [Postal and Pullum]() ([1988]()) argue against a DP shell analysis because argument extraction is possible compared to complex NPs.
  - **Next: Is this true?**

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[3][Stroik]() ([1996]()) has an explanation for selective islands: *it* is an expletive in spec,CP of the embedded clauses. This blocks movement. I set this approach aside because it does not recognize that argumental status of *it*.

3   Judgment study

Reporting joint Work with **Wesley Orth (UofT)**

We compared argument extraction across a triple: bare CP complement, *it*-prolepsis, and complex NPs.

- 2 × 3 study: Structure (Bare CP vs. It-prolepsis vs. the fact/Complex NP) × Sentence type (wh-question vs. declarative)

(22)

a.	Jeff regretted that he failed his driving test for the second time.	Declarative/Bare CP
b.	What did Jeff regret that he failed for the second time?	Wh-question/Bare CP
c.	Jeff regretted it that he failed his driving test for the second time.	Declarative/It-prolepsis
d.	What did Jeff regret it that he failed for the second time?	Wh-question/It-prolepsis
e.	Jeff regretted the fact that he failed his driving test for the second time.	Declarative/Fact (complex NP)
f.	What did Jeff regret the fact that he failed for the second time?	Wh-question/Fact (complex NP)

Value of factorial design: (Sprouse, 2007)

- The mere presence of *it* (and island structures generally) could reduce acceptability.
- Extraction itself can reduce acceptability.
- The design factors these out by comparing differences-in-differences.
- Island effect: super-additive interaction between Structure and Sentence type.

Factive verbs

- We chose factive verbs because the paradigm works well: these verbs accept prolepsis, *fact*, and bare CP complements.
- Factive islands: might depress extraction scores across the board.

Study details

- 1-7 Scale; 36 items distributed across 6 lists in a Latin Square design; 40 fillers
- 95 participants recruited via Prolific.ac

Results
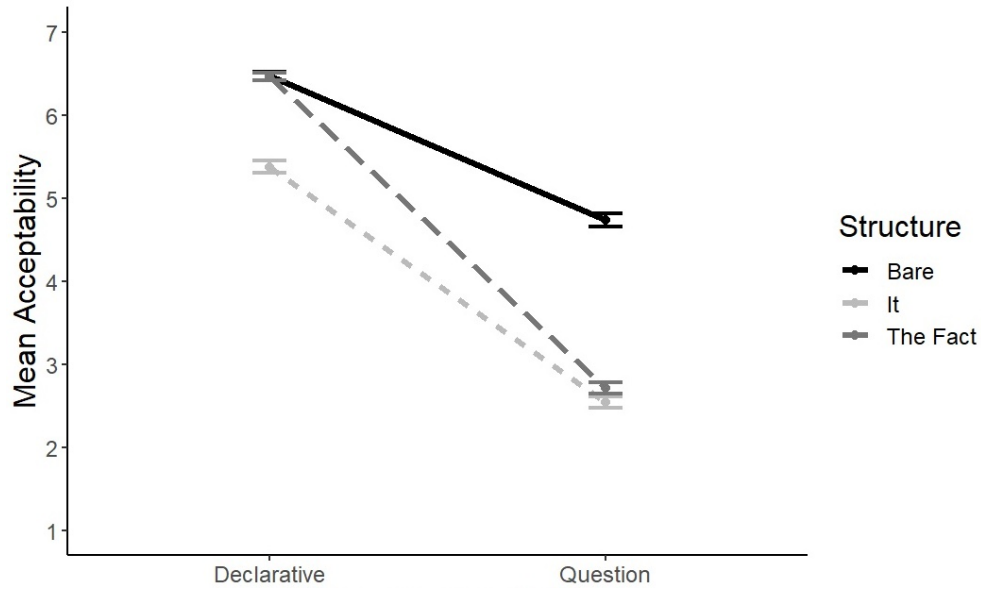
Acceptability of extraction (n=95)

- Significant effect of Sentence type (p<.05). Extraction alone depresses acceptability.
- **Significant interactions between Structure and Sentence Type:**
  - between Bare CP and *It*-prolepsis (p<0.01)
  - between Bare CP and The Fact/Complex NP: interaction (p<0.001).
- Not a floor effect; 7 fillers rated between 1 and 2.

Discussion

A two-way distinction is needed:

- Extraction from complex NP/*fact* is highly degraded.

- Extraction from *it*-prolepsis is also degraded compared to the bare CP baseline, but shows weaker island effects than complex NP/*fact*.

    - Note: this result is all the more important for *it*-prolepsis because the baseline is a factive island, where even argument extraction is sometimes already rated lower than bridge contexts (Liu et al., 2022).

    - Speaks against assimilating (emotive) factive complements to covert DP structures (e.g. Kastner 2015).

The two-constituent analysis (Longenbaugh, 2019) does not predict a difference between bare CPs and proleptic constructions: the CP is a complement in both cases.

Complex NP Violations

Bošković (2015); Sichel (2018)-style analysis:

- NP is a phase (for non-arguments)

- PIC-obeying extraction requires movement to an edge/adjunct position of NP, and then spec,DP

- But such movement does not cross an entire maximal projection (Sichel, 2018), resulting in anti-locality violation.

D+CP Shell construction:

- No NP layer, no CNPC violation.

    - Sichel (2018) has argued that raising relatives are weak islands precisely because they lack the NP layer — D selects CP directly in raising relatives (Kayne 1994).[4]

- The weak island effect in *it*-prolepsis is a definiteness effect — the pronoun is definite.

(23) a.   Who did you see pictures of?
      b.   ?Who did you see the picture of?
      c.   *Who did you see that picture of?   Simonenko (2015)

If the DP-shell analysis is correct, we should find contrasts similar to (23b,c). In the next section I argue that we do.

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[4]Sichel (2018) assumes that Spec,CP to Spec,DP movement obeys anti-locality in fully crossing the CP projection.

4 *That*-prolepsis and extraction

In addition to *it*, the demonstrative *that* (and to some extent *this*) can be used in clausal prolepsis.[5]

(24) a. **That** stinks that you got fired.   c. **This** stinks that we can't get a discount.
      b. I really hate **that** that he always brings take-out to potlucks.

Extraction

Extraction is impossible from *that*-prolepsis compared to *it*-prolepsis (which is *comparatively* acceptable, even when a subject).

(25) *Declarative Baseline*: I hate that that he always brings take-out to potlucks?
      a. ?What do you hate **it** that he always brings to potlucks?
      b. *What do you hate **that** that he always brings to potlucks?

(26) *Declarative Baseline*: It/That surprised us that Ani performed a song.
      a. ?Which song did **it** surprise you that Ani performed?
      b. *Which song did **that** surprise you that Ani performed?

(27) *Declarative Baseline*: It/That was important that Sam did something for her family.
      a. ?What was **it** very important that Sam do for her family?
      b. *What was **that** very important that Sam do for her family?

The contrast also comes out with infinitives, which are generally more transparent for extraction, and in particular with subject prolepsis (see e.g. Zaring 1994 for French).

(28) *Declarative Baseline:* It/That would suck to discover a leak like that in your basement.
      a.   What would it suck to discover in your basement?
      b. *What would that suck to discover in your basement?

   • **On the DP shell analysis**, the difference is reducible to that in (23b) vs. (23c).

   • **On the two-constituent analysis** (Longenbaugh, 2019), extraction does not proceed from a DP let alone a demonstrative DP, so it is hard to see how manipulating the choice of D could matter.[6]

That-prolepsis is not dislocation

That-prolepsis is indeed a variety of prolepsis, not for instance, Right Dislocation (RD) structures (29).

   • Ths is important since RD structures would independently be islands (Ott and De Vries, 2016).

(29) a. He's strange, that guy on the bike.
      b. That stinks, the grade you got on the final.

That-prolepsis constructions pattern with *it*-prolepsis rather than RD in at least three ways.

#1. Prosody patterns with prolepsis not RD

(30) a. That stinks *(,) the grade you got on the final.
      b. That stinks that you failed the final.

#2. Attachment site patterns with prolepsis not RD

Right Dislocated elements are quite high and cannot easily travel with the VP in predicate fronting:

(31)   He said the grade you got on the final stinks. . .
        a.   and stink that certainly does, the grade you got on the final
        b.   *and stink the grade you got on the final, that certainly does.

Argument clauses extraposed from subjects can front with the VP (Reinhart, 1980).

- Proleptic-*that* constructions allow the CP to front with the VP (32b), at least to same degree as with proleptic-*it* (32a).

(32)   He said it stinks that you got fired. . .
        a.   and stink that you got fired, it certainly does!
        b.   and stink that you got fired, that certainly does!

Similar with *though*-fronting:

(33)   Important that you get a good grade though it/that was, you needed to sleep.

#3. Complementizer omission patterns with prolepsis not RD

That-omission is possible in proletpic constructions for many speakers:

(34)   a.   It sucks he got fired.
        b.   It's obvious there's a problem.
        c.   I love it he agrees with me.

Similarly tolerance of *that* omission in *that*-prolepsis:

(35)   a.   Man, that sucks he got fired.
        b.   Yes, that's obvious there's a problem.
        c.   That's insane he would try that trick again after landing primo once. Dayum.[7]

Right-dislocated CPs do not allow *that*-omission.

- Helpful disambiguation element: *namely*.
- Right dislocated elements can have a "colon" interpretation which can be signaled by *namely* (Ott and De Vries, 2012).

(36)   That was expensive, (namely) the dish you ordered.

With *namely*, Comp cannot be omitted.

(37)   That was obvious, namely ?(that) there was a problem.

Summary

- Proleptic-*it* constructions give rise to weak islands:
  - Weaker than complex NPs, but stronger than baseline factive islands.
- I argued this could be captured with a D+CP shell approach.
- *It*-prolepsis DP shells lack an NP layer, while complex NPs contain one, and this is responsible for strong islandhood of complex NPs.
- Manipulating the content of D from *it* (i.e. *the*) to *that* produces the expected degradation in extraction if the construction were a DP.

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5 D+CP vs. Complex NP: evidence for absence of NP layer?

> **Is there independent evidence that the DP shells of English *it*-prolepsis constructions lack an NP layer?**

5.1 Lessons from Spanish nominalized CPs

Spanish nominalized CP constructions suggests that the absence/presence of a null N in similar constructions correlates with meaning.

- There are two types of nominalized CPs in Spanish: *el+CP* and *lo de+CP* (Plann, 1981; Delicado Cantero, 2013; Picallo, 2002; Serrano, 2014, 2015).[8]

(38) *El+CP*

[**El**   [que creas   que hay   fantasmas en la   azotea]] carece de lógica.
that   that believe.2SG that there.is ghosts   in the attic   lacks of logic.
'That you believe that there are ghosts in the attic is illogical.'   (Picallo, 2002: (6a))

(39) *Lo+de+CP*

[**Lo de** [que se   tenga que pagar un impuesto adicional]] provocará un unánime   rechazo.
the of that people have that to.pay a   tax   additional will.cause a unanimous revolt
'The (idea/proposal) that people have to pay an additional tax will cause a unanimous revolt.

                                                                              (Picallo, 2002: (9a,b))

Picallo's claim:

- ***El+CP* constructions: D+CP (no NP layer)**
- ***Lo+de+CP* constructions: null NP layer**

Evidence:

In *lo de+CP* constructions, *de* is obligatory (Picallo, 2002).

(40) Lo *(de) que se   tenga que pagar un impuesto adicional   provocará un unánime   rechazo
the of   that people have that to-pay a   tax   additional will-cause an unanimous revolt
'The (idea/proposal) that people have to pay an additional tax will cause a unanimous revolt.'

Likewise, *de* is required in complex noun phrases:

(41) Lamento   el   hecho *(de) que no me saludara.
regret.1SG the fact   of   that not me greet.3SG
'I regret the fact that he did not greet me.'   (Picallo, 2002: fn. 3 (ia))

But *de* is disallowed in the *el+CP* construction (at least when presented out of the blue, unlike *lo+de+CP* constructions).

(42) Lamento   el   (*de) que no me saludara.
regret.1SG the of   that not me greet.3SG
'I regret that he did not greet me.'   (Picallo, 2002: fn. 3 (ib))

Conclusion: there's a silent noun in *lo de+CP* constructions.

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[8]Picallo (2002) reports that *lo* is traditionally classified as the neuter determiner. The -*o* portion appears in other contexts where a noun is absent or silent (Bernstein, 1993).

- The silent N is not just ellipsis of an N, something that is possible otherwise, as in (43), when there is a linguistic antecedent.

(43) Consideró   varios **hechos** independientemente. **El** [*e*] **de** que hubieran apoyado tal   propuesta era el
     considered.3sg several facts   independently   the   of that had.3pl   supported such-a proposal was the
     más   conspicuo.
     most conspicuous
     'S/he considered several facts independently. The (fact) that they had supported such a proposal was the most
     conspicuous one.'

<div align="right">(Picallo, 2002: (8a))</div>

- In contrast, no such linguistic antecedent is required for *lo de+CP* constructions, suggesting that it is a null N as distinct from an elided N.

So:

- *el+CP* must **not** involve a silent noun
- *Lo de+CP* involves a silent noun (it *is* a complex NP)

Meaning distinctions between *el+CP* and *lo de+CP*

- *lo de+CP* clauses can express **full-fledged propositions** in that they can serve as the arguments of predicates of truth and falsity (44a) and propositional attitude verbs such a *creer* 'believe' (44b) and *decir* 'to say' (44c). (Moulton, 2020)
- 'Full-fledged propositions' are **truth bearers** in the sense of Moltmann (2021).

(44) *Lo de+CP*
  a. [Lo de que María compró una casa] es **cierto/verdad/falso**.
     The of that Maria bought a   house is **certain/true/false**
     'That Maria bought a house is certain/true/false.'
  b. No me **creo**   lo de que María compró una casa   nueva.
     Not me **believe**.1sg the of that Maria bought a   house new
     'I don't believe that Maria bought a new house'.
  c. Juan ya   me   **dijo** lo de que María compró una casa   nueva.
     Juan already to.me **said** the of that Maria bought a   house new
     'Juan already said to me that Maria bought a new house.'

- In contrast, *el+CP* clauses cannot complement these predicates (45) (Serrano, 2014, 2015).

(45) *El+CP*
  a. *[El que María compró una casa] es **cierto/verdad/falso**.
     The that Maria bout   a   house is **certain/true/false**.
     'That Maria bought a house is certain/true/false.'
  b. *Carol **dijo** el que no   quedaban entradas para el cine.
     Carol **said** the that NOT left   tickets   for the cinema
     'Carol said that there were no movie tickets for the cinema left.'
     (Serrano 2015, 24:(8a))
  c. *Helena **pensó**   el que el viaje a Japón había sido estupendo.
     Helena **thought** the that the trip to Japan had   been great.
     'Helena thought that the trip to Japan had been great.'
     (Serrano 2015, 24:(8b)) (Serrano 2015, 28:(13b))

- *El+CP* constructions appear often with predicates that select **states-of-affairs** (often facts, but also certain types of possibilities):
  - *ser sorprendente/importante/irrelecante* 'be surprising/important/irrelevant', *hacer* 'to make (something)', *lamentar* 'to regret', *mostrar* 'to showing something', *subrayar* 'to highlight/underline something'.

- In [Moulton](2020) I floated a generalization:
  - clause-level nominalizations that denote **truth bearers** (serving as the clausal argument for *true, false, believe, say*) **must have a null N** that describes a <u>thing with propositional content</u>.
  - Nominalization via D alone does not give rise to full-fledged propositional meanings but rather states-of-affairs (e.g. *El+CP* constructions, English clausal gerunds **Him doing that was true/false/believed*).
- [Bondarenko](2022) suggests a similar split within nominalized CPs in Buryat: content CPs (truth bearers) have a null lexical noun whereas situation CPs (states-of-affairs) do not.
  - This correlates with transparency for extraction: in Buryat situation CPs, but not content CPs, are transparent for scrambling

The point: the meaning of the clausal nominalization may diagnose the presence/absence of a null N.

5.2   Back to Prolepsis

Conjecture:

- Clausal prolepsis constructions that denote truth bearers, e.g. selected by *true/false, say* **DO** require a null N. ($\approx$ *lo de que* constructions)
- Clausal prolepsis constructions that denote states-of-affairs/facts do not. ($\approx$ *el que* constructions)

[Kiparsky and Kiparsky](1970) in fact argued that clausal prolepsis is only possible with fact-selecting predicates, and these judgments are shared by some still ([Elbourne](2013)).

(46)   Judgments from ([Elbourne](2013)):

(106) *Factives*
    a. I resent it that ...
    b. I regret it that ...
    c. I don't mind it that ...
    d. I hate it that ...
    e. I like it that ...
    f. I love it that ...

(107) *Semi-Factives*
    a. *I know it that ...
    b. *I realize it that ...
    c. *I discover it that ...
    d. *I see it that ...

(108) *Non-Factives*
    a. *I believe it that ...
    b. *I doubt it that ...
    c. *I disbelieve it that ...
    d. *I suspect it that ...
    e. *I think it that ...
    f. *I agree it that ...
    g. *I conclude it that ...

While judgments are more nuanced, these data are meaningful.

- Non-factives *can* partake in prolepsis constructions ([Angelopoulos, to appear](#)).[9]
- However, prolepsis with non-factives often requires an overt signal of extraposition.

(47)   Non-factives with prolepsis:
    I've said/suspected/believed/thought **it** ?(<u>all along</u>) that non-factives can take proleptic objects.

Interaction with extraction

If non-factive prolepsis constructions that denote truth bearers involve a null N, then the prediction is that extraction would be a CNPC violation:

- Informal judgments: subtle contrast whereby extraction is harder out of prolepsis constructions that are truth bearers.

(48)   a. ?*What did you say it all along that John did?   cf. What did you say all along that John did.
     b. ?What do you hate it that John did?

(49)   a. ??Who is it true/false that Jessica fired?
     b. Who is it likely/possible/important that Jessica fired?

Some English prolepsis constructions may involve a null N, but this blocks movement as expected of a complex NP.

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[9]Non-factive prolepsis must be discourse anaphoric in German/Dutch ([Sudhoff](2003); [Angelopoulos, to appear](#)).

6 Conclusion

- Proleptic constructions are not as syntactically transparent as bare CPs but not as opaque as complex NPs.
- *That*-prolepsis shows that extraction is regulated in similar ways to simplex DPs — *the/it* vs. *that*
- I suggest a D+CP structure for clausal prolepsis (no NP layer, no CNPC violation).

Open questions

- What forces extraposition?
    - Surface filter *[D CP], where D has phonological content (e.g. Hinterwimmer (2010))
- What is going on with extraction from subject-associated prolepsis?
    - The CP must remain low (Zaring, 1994) (see also Landau 2001)
- Do adverbial-looking clauses (*when*, *if*) that partake in prolepsis warrant a similar treatment?

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