How to tell a syntactic phenomenon when you see it

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1. What this talk is about

- A common theme in the last 20 years of generative linguistics:
  - phenomenon *X*, which you always thought was part of syntax, actually arises "post-syntactically" / "on the PF branch"

- Sometimes, this is because *X* is a poor fit for some currently-fashionable grammatical principle *Y*
  - e.g. for *X* = **head movement** (where *Y* = **Extension Condition**)
- Other times, this is because *X* is argued to inform PF operations but not LF operations
  - e.g. for *X* = **"morphological" case**

- ↪ I contend, however, that even when *both* of these conditions hold —

    (as has been argued, by some, for *X* = **head movement**)

  — it is still insufficient grounds for declaring *X* to be "post-syntactic" or "on the PF branch"

- Why? Because if your theory of *X* requires "post-syntax" or the "PF branch" to traffic in:
  - chains/copies/traces
  - c-command
  - the finer detail of syntactic phrase structure

- ⟹ Then your theory is a bad one
  - because it requires duplicating most or all of the syntactic machinery in a second module of grammar

- Alas, it seems not all practitioners of generative grammar are as swayed by these arguments as I am…
  - and so it is useful to find other arguments against the relegation of these *X*'s to "post-syntax" / the "PF branch"

- ↪ And that is what I aim to provide today —
  - for each *X* ∈ {*φ*-**feature agreement**,
                so-called 'morphological' case,
                the Person Case Constraint,
                head movement}:
    – I will provide arguments that *X* cannot be situated outside of syntax proper

- However, to the extent that this is successful, I think the lesson here is this:
  - the original, architectural arguments —

        (not duplicating all of syntax in "post-syntax" / the "PF branch")

    — were fairly reliable heuristics in the first place.

2. *φ*-feature agreement & so-called "morphological" case

2.1. The traditional (by now) view: postsyntactic m-case (& *φ*-agreement)

Marantz 1991:

- Morphological case forms have *nothing to do* with the primitives that a Vergnaud-style Abstract Case theory posits
  - instead, they are the result of a completely different kind of computation, schematized in (1):

(1) DISJUNCTIVE CASE HIERARCHY (DCH)
    lexical/oblique case ≫ **dependent case** ≫ **unmarked case** (≫ **default case**[1])

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[1] In Marantz's original system, **default case** is set up as a category separate from **unmarked case** (see also Schütze 2001). It is not clear to me, however, that such a separation is required at all. Even in Marantz's original proposal, the spellout system needs to "know" the identity of the domain being spelled out; 'genitive', for example, is simply the spellout of **unmarked case** in the DP domain, whereas 'nominative' is the spellout of **unmarked case** in the TP/CP domain. Given this, I see no serious obstacle to treating so-called default case as the spellout of **unmarked case** when the domain is neither of these (i.e., an 'elsewhere' spellout of **unmarked case**). This view is even more natural in a system where **unmarked case** arises as the outright absence of case values (see fn. 3).

⤳ Primary evidence:

- ○ **lexical/oblique case** on the subject bleeds **dependent case** (='accusative') on the object
  - – cf. Icelandic quirky-subject verbs
    (Sigurðsson 1991, Zaenen et al. 1985, *i.m.a.*, via Marantz 1991:18–19)

- ○ **lexical/oblique case** on the object bleeds **dependent case** (='ergative') on the subject
  - – cf. Chukchi antipassive
    (Kurebito 2012:184, via Polinsky 2017:314, *i.a.*)

- Furthermore:

(2)   CLAIM: The results of the DCH algorithm inform <u>no</u> syntactic computations.

- If (2) were correct —
  - ○ then a natural way to capture it would be to place (1) (the DCH) outside of narrow syntax
- Cf. the absence of "front XP only if X^0 begins with a labial stop"-type rules
  - ○ motivating late (=post-syntactic) insertion of phonological content into syntactic terminals

<u>Bobaljik 2008:</u>

(3)   overt φ-feature agreement tracks the output of (1) (a.k.a., *m-case*)

- The central evidence comes from dissociations furnished by Icelandic:
  - ○ non-nominative finite subjects
  - ○ nominative direct objects
- And from the fact that agreement can be NOM-ACC in a language with ERG-ABS case, but not vice versa
- ⤳ In all these instances, φ-agreement tracks m-case
  - ○ and disregards "grammatical function" (subject/object/etc.) as well as the predictions of Abstract Case theory

(4)   **if:** m-case is computed post-syntactically (and given that φ-agreement tracks m-case; (3)), **then:** φ-agreement must be post-syntactic, as well.

[Bobaljik 2008]

- Obviously, (4) is a matter of simple logic;
- But the conclusion is only as strong as the premises —
  - ○ in particular, that m-case is post-syntactic in the first place
- In fact:
  - ○ if we can find evidence that φ-agreement must be in syntax —
    - ⤳ then, by the very same order-of-operations logic that Bobaljik uses, it follows that:

(5)   **if:** φ-agreement is computed in syntax (and given that φ-agreement tracks m-case; (3)), **then:** m-case must be computed in syntax, as well.

[Preminger 2011a, 2014]

2.2. An interlude: how "morphological" is "m-case"?

CLAIM:

- m-case features are necessarily <u>abstract</u>.

EVIDENCE:

- Icelandic has certain nominal declensions for which NOM and DAT are syncretic
- **Now, recall:** overt φ-agreement necessarily tracks m-case (Bobaljik 2008)
- ⤳ If m-case were "morphological" in any meaningful sense, then:
  - ○ a quirky DAT subject that is morphologically syncretic with NOM would be able to (exceptionally) control finite agreement —
    - — which is what morphologically nominative DPs can do
- But this is not the case:

(6)   [Rut]   líkuðu / ??líkaði [þessir sokkar]   (Icelandic)
      [Rut].DAT(=NOM) like.pl   ??like.sg [these socks].NOM
      'Rut likes these socks.'

[Halldór Ármann Sigurðsson, p.c.]

- The subject *Rut* in (6) is dative in a deep, syntactic sense
  - ○ despite its dative-ness having no morphological manifestation in this instance

⇒ **Thus:**

- ○ m-case is not "PF-oriented";
- ○ it is not about overt case forms;
- ↣ it is <u>abstract</u>.

  (You might even say that the theory of m-case is therefore, necessarily, a theory of… *abstract* case![2])

2.3. So, back to these claims of 'post-syntactic'-hood…

<u>Preminger 2011a, 2014:</u>

- What Bobaljik (2008) has shown is, essentially, that φ-agreement is *case-discriminating*

  (where the relevant notion of 'case' is, of course, m-case)

- ↣ There is another phenomenon that is (sometimes!) case-discriminating:
  - ○ movement to canonical subject position (henceforth, *MtoCSP*)
- In particular, in a *non*-quirky-subject language (e.g. English) —
  - ○ only <u>nominative</u> DPs can end up as finite subjects

- This cannot be because the finite subject position is the only position where nominative can be "assigned"
  - ○ cf. Icelandic, again
- ⇒ Something else must give rise to the *case-discrimination* property of MtoCSP in a language like English

- Three logical possibilities:
  - **(i)** MtoCSP is case-discriminating all on its own; and it is essentially a coincidence that φ-agreement is also case-discriminating
  - **(ii)** φ-agreement is the real source of case-discrimination; MtoCSP is only derivatively case-discriminating
  - **(iii)** MtoCSP is the real source of case-discrimination; φ-agreement is only derivatively case-discriminating

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[2]Of course, the theory of m-case does <u>not</u> predict the positions in which overt nominals can and cannot occur. On the other hand—and despite frequent claims to the contrary—neither does the traditional theory of Abstract Case (see Preminger 2017, 2018 for discussion).

- We can rule out (iii) immediately, since φ-agreement is case-discriminating even in a language in which MtoCSP is not (Icelandic);

⇒ *Which of (i)–(ii) is correct?*

- <u>Answer: **(ii)**.</u>
  MtoCSP is case-discriminating only *derivatively*, by virtue of case-discrimination by φ-agreement

(7) PATTERNS OF CASE-DISCRIMINATION IN φ-AGREEMENT VS. MtoCSP

  a. English: candidates for MtoCSP: {NOM} = candidates for finite φ-agreement: {NOM}

  b. Icelandic: candidates for MtoCSP: {NOM, ACC, DAT, … } ⊋ candidates for finite φ-agreement: {NOM}

  c. ***unattested**: **candidates for MtoCSP:** {**NOM**} ⊊ **candidates for finite φ-agreement:** {**NOM, ACC**}

⇒ movement to subject position can do only one of two things:
  - (7b): grab <u>the closest nominal</u> (regardless of case)
  - (7a): grab <u>that nominal which was targeted for φ-agreement</u>

- In other words: the typology of MtoCSP case-discrimination relative to φ-agreement case-discrimination shows us:
  - ○ in a non-quirky-subject language, MtoCSP is <u>fed by</u> φ-agreement
- ↣ But, crucially, MtoCSP is *part of syntax*
  - ○ it has, e.g., effects on scope

- Thus, MtoCSP (which must be in syntax) is fed by φ-agreement, which is itself fed by m-case
  - ⇒ ***m-case and φ-agreement must be part of syntax, too.***

Let us clarify what this result entails:

- It does <u>not</u> entail that the "morphological forms" of m-case, or of φ-agreement for that matter, are part of syntax;
  - obviously, they are not —
    - syntax is, definitionally, that part of language which is distinct from sound and meaning.

- ↝ Rather, it entails that the <u>computations</u> that lead to m-case and φ-agreement must take place in syntax
  - i.e., (something like) Marantz's DCH churns along in syntax —
    - giving rise to DPs bearing **lexical/oblique**, **dependent**, and **unmarked** case values[3]
  - In principle, these categories may then be exponed (as in, e.g., Icelandic);
  - Or not (as in, e.g., Mandarin).

- ⇒ Thus, this result is not directly about *overt case forms*

  (and certainly, it is not an argument for including morpho-phonological forms as part of the syntactic computation)

- There is one interesting caveat, though:
  - as I argue in Preminger 2019, there is really no such thing as <u>unexponed φ-agreement</u>
    - whereas, as we've just seen, there *is* such a thing as <u>unexponed m-case</u>
  - this is an interesting asymmetry
    - and one that is prima facie surprising, given the modular encapsulation separating syntax from phonological content
  - ⇒ so more needs to be said about how, exactly, it arises —
    - see Preminger 2019 for details.

3. The *Person Case Constraint*

3.1. A short primer

- The *Person Case Constraint* (PCC) —

  (a.k.a., the **me-lui Constraint*)

  — is a restriction governing possible & impossible argument combinations

- It usually affects multiple internal arguments of a single predicate
  - ⇒ and is therefore most commonly found with ditransitive verbs

(8) a. Zuk   niri   liburu-a   saldu d-i-∅-da-zu
       you.ERG me.DAT book-ART$_{sg}$(ABS) sell 3.ABS-√-sg.ABS-1sg.DAT-2sg.ERG
       'You have sold the book to me.'
    b. * Zuk   harakin-ari   ni   saldu *n-(a)i-∅-o-zu*
         you.ERG butcher-ART$_{sg}$.DAT me(ABS) sell 1.ABS-√-sg.ABS-3sg.DAT-2sg.ERG
         'You have sold me to the butcher.'

[Basque; *Laka 1996*]

(9) STRONG PCC IN BASQUE DITRANSITIVES:
    In finite clauses, the direct object of a ditransitive verb must be 3rd person.

- The PCC is **asymmetric** in certain fundamental ways:

  (i) it restricts the PERSON features of Themes in the presence of an applied argument ("Indirect Object") —
    - but it does not restrict the PERSON features of an applied argument ("Indirect Object") in the presence of a Theme

  (ii) while it restricts the PERSON features of the affected argument, there is generally no analogous effect involving NUMBER
    - as Nevins (2011) puts it: there is no "Number Case Constraint"[4]

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[3]This is slightly imprecise, in that **unmarked case** is likely not a case value at all—but rather, the outright absence of otherwise-possible case values (see Kornfilt & Preminger 2015, McFadden 2018, Preminger 2014, *i.a.*); I will abstract away from this issue for the moment.

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[4]Though see Coon et al. (2017) for a potential counterexample, involving agreement in German copular clauses.

Also worth noting:

- The pattern demonstrated here with Basque is one of a <u>family</u> of related patterns
- Basque exhibits what's known as the *Strong* PCC (see (9))
- Alongside it, scholars acknowledge: *Weak*, *Me-First*, *Total*, *Super-Strong*, and *Ultra-Strong* variants[5]
  - the latter also known as *Strictly-Descending*, and derivable as a conjunction of the *Weak* and *Me-First* variants

3.2. The PCC is syntactic

> "These phenomena have been associated with concomitant surface morphological effects (such as the Person-Case Constraint [...])"
>
> [https://linguistlist.org/issues/29/29-2216.html]

- There's a persistent intuition that the PCC is a **morphological** effect
  - see above — as well as: Bonet 1991, 1994, *a.o.*
- The name **me-lui Constraint*, for example, transparently encodes this belief

↪ **We've known for ~20 years that this is false.**

  Here's how…

  (What follows is entirely based on Albizu 1997 and Rezac 2008b.)

- **Fact 1:** Basque has two-place unaccusatives —
  - · verbs that select ABS and DAT arguments, but no ERG one
  - — and these come, in Basque, in two flavors:[6]

(10) DAT ≫ ABS:

  a.   <u>DAT</u> binding ABS: ✓
    Kepa-ri   bere buru-a   gusta-tzen zako
    Kepa-DAT his   head-ART$_{sg}$(ABS) like-HAB   AUX
    'Kepa likes himself.'

  b.   <u>ABS</u> binding DAT: ✗
  * Kepa   bere buru-a-ri   gusta-tzen zako
    Kepa(ABS) his   head-ART$_{sg}$-DAT like-HAB   AUX
    Intended: 'Kepa likes himself.'

(11) ABS ≫ DAT:

  a.   <u>DAT</u> binding ABS: ✗
  * Kepa-ri   bere buru-a   ji-ten   zako ispilu-a-n
    Kepa-DAT his   head-ART$_{sg}$(ABS) come-PROG AUX mirror-ART$_{sg}$(ABS)-LOC
    Intended: 'Kepa is approaching himself in the mirror.'

  b.   <u>ABS</u> binding DAT: ✓
    Miren   bere buru-a-ri   mintzatu zaio
    Miren(ABS) his/her head-ART$_{sg}$-DAT talk-PRT AUX
    'Miren talked to herself.'   [*Rezac 2008b:75*]

  - this contrasts with true, three-place ditransitives in Basque
    – which are uniformly ERG ≫ <u>DAT</u> ≫ ABS (Elordieta 2001, Rezac 2008a)

- **Fact 2:** The PCC is not restricted to ditransitives, and occurs with these two-place unaccusatives too
  - *but only with the DAT ≫ ABS ones!*

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[5]Referring to all of these as "PCC effects" is, of course, a terminological choice. The extent to which they represent a unitary phenomenon is a matter of analysis. For example, the so-called *Total* PCC is just a prohibition on any combination of two weak pronominal objects—and, as such, may just be a matter of prosody. For the remainder of this talk, I will assume that at least those variants that are sensitive to PERSON features (i.e., all but the *Total* variant) can be treated as a unitary phenomenon at a sufficient level of abstraction (see also §3.2).

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[6]The order of the absolutive and dative arguments of two-place unaccusatives in Basque is relatively free. Thus, for example, there is nothing intrinsically wrong with the absolutive-before-dative order of arguments in (10b, 13b); compare (i):

(i) Haiek   Itxaso-ri   gusta-tzen ∅-zai-zki-o
   they(ABS) Itxaso-DAT like-HAB   3.ABS-√-pl.ABS-3sg.DAT
   'Itxaso likes them.'   [*Rezac 2008b:63*]

The arguments in an example like (10b) occur in the order that would give the example its best chance at acceptability, given the general dispreference for cataphora. The same is true for (11a).

- Compare:[7]

(12) ABS ≫ DAT verb:

Ni   Peru-ri   hurbildu $\boxed{\text{na-tzai-}\varnothing\text{-o}}$
me(ABS) Peru-DAT approach 1.ABS-√-sg.ABS-3sg.DAT
'I approached Peru.'

(13) DAT ≫ ABS verb:

  a.   Haiek   Itxaso-ri   gusta-tzen ∅-zai-zki-o
        they(ABS) Itxaso-DAT like-IMPF 3.ABS-√-pl.ABS-3sg.DAT
        'Itxaso likes them.'

  b. */?? Ni   Itxaso-ri   gusta-tzen $\boxed{\text{na-tzai-}\varnothing\text{-o}}$
        me(ABS) Itxaso-DAT like-IMPF 1.ABS-√-sg.ABS-3sg.DAT
        'Itxaso likes me.'

                                          [Rezac 2008b:63]

NOTICE:

  ○ the putative target form of the finite auxiliary in the ungrammatical (13b) is identical to the one in the grammatical (12);

  ○ this is not merely phonological identity, but **morphological** identity:

    – the two express the same set of associations between φ-features and case — {ABS:1sg, DAT:3sg}

Consequences:

- The effect in (9) (the ditransitive PCC) is actually a subcase of a slightly broader pattern:

(14) THE PCC IN BASQUE: (revised version)
In those finite clauses that have a DAT argument located higher than the ABS argument, the ABS argument must be 3rd person.

  ⇒ (9) is derivable as a special case of (14)

    – because ditransitives in Basque always adhere to a ERG ≫ DAT ≫ ABS structural hierarchy

But more importantly...

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[7]While (11a) and (12) involve different verbs, they both belong to the class of two-place unaccusatives of motion, all of which are ABS ≫ DAT verbs (Rezac 2008b:72).

- **There is no way to capture the PCC as a morphological filter**

(not on any contentful definition of 'morphological', anyway)

  ○ the auxiliary in (12) is morphologically identical to the one in (13b)

    – either it is morphologically licit...

      ⇒ wrong prediction for (13b)

    – or it is not...

      ⇒ wrong prediction for (12)

- We could, of course, endow one of the datives in (12–13) with a diacritic that is missing on the other

  ○ and grant morphology access to this diacritic in evaluating PCC violations

- But since there are no actual differences in the morphology between the two types of datives —

(neither in dependent-marking nor in head-marking)

  — this would amount to a restatement of the problem faced by morphological analyses of the PCC

    ↬ not a solution to it.

- It would also render accidental the correlation with the structural asymmetries shown in (10–11) (DAT ≫ ABS vs. ABS ≫ DAT)

  ○ cf. the syntactic analysis, surveyed below

- Alternatively, we could grant morphology access to finer structural distinctions of the sort shown in (10–11)

- It seems to me, however, that this would stand in rather blatant violation of the point of modularizing the grammar in the first place

⇒ We could therefore rephrase our current point as follows:

  ○ either the PCC is syntactic in nature;

  ○ or else there is no meaningful distinction between syntax and morphology *qua* grammatical modules

    – in which case, we could still say that the PCC is syntactic, without any loss of generality.

3.3. How the PCC arises in syntax: licensing & minimality

- We now need a syntax-based account of the PCC
- There is a <u>huge</u> variety of syntax-based accounts of the PCC out there —
  - Anagnostopoulou 2003, 2005, Béjar & Rezac 2003, Adger & Harbour 2007, Nevins 2007, 2011, Ormazabal & Romero 2007, Coon & Keine 2018, among many, many others
- Of these, only a subset has any real hope of capturing the effects in (10–11) (DAT ≫ ABS vs. ABS ≫ DAT) —
  - in particular, those based on Relativized Minimality (Rizzi 1990)

The idea, going back to Anagnostopoulou (2003) and Béjar & Rezac (2003), is:

- There is some PERSON-related syntactic probe, call it H^0;
- If H^0 probes down and encounters the Theme first —
  - either because the Theme is the *only* internal argument (monotransitives, as well as one-place unaccusatives);
  - or because the Theme is closer to the probe than the applied argument ("Indirect Object");
  — then all is well.

- **But**, if H^0 encounters the applied argument ("Indirect Object") en route to the Theme, **and the Theme is 1st/2nd person**, a problem arises
  - ↪ *Why?*
  - <u>Béjar & Rezac (2003)</u>:
    [participant] on a DP requires licensing-by-agreement
    ≡ [participant] on a DP must participate in valuation
  - <u>Preminger (2011b)</u>:
    [participant] on a *canonical agreement target* must participate in valuation
    - because: otherwise 1st/2nd person datives would cause the same problem, and they don't...

(15) Zuk   niri   liburu-a   saldu d-i-∅-da-zu
      you.ERG me.DAT book-ART_sg(ABS) sell 3.ABS-√-sg.ABS-1sg.DAT-2sg.ERG
      'You have sold the book to me.'

[Basque; *Laka 1996*; *[=(8a)]*]

– and also, because:

(16) a. * Honum mundi   hafa likað **við**.
        him.DAT would.3sg have liked **we.NOM**

     b. * Honum mundi   hafa likað **þið**.
        him.DAT would.3sg have liked **you(pl).NOM**

     c. ? Honum mundi   hafa likað þeir.
        him.DAT would.3sg have liked they.NOM
        'He would have liked them.'

(17) a.   Honum mundi/*mundum   virðast **við**   vera hæfir.
        him.DAT would.3sg/*would.1pl seem **we.NOM** be   competent
        'We would seem competent to him.'

     b.   Honum mundi/*munduð   virðast **þið**   vera hæfir.
        him.DAT would.3sg/*would.2pl seem **you(pl).NOM** be   competent
        'Y'all would seem competent to him.'

     c.   Honum mundi/<u>mundu</u>   virðast þeir   vera hæfir.
        him.DAT would.3sg/<u>would.3pl</u> seem <u>they.NOM</u> be   competent
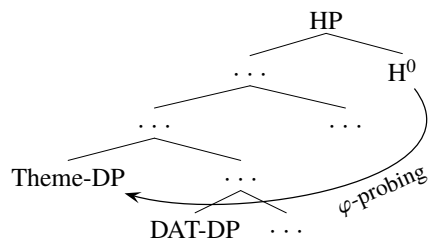   'They would seem competent to him.'

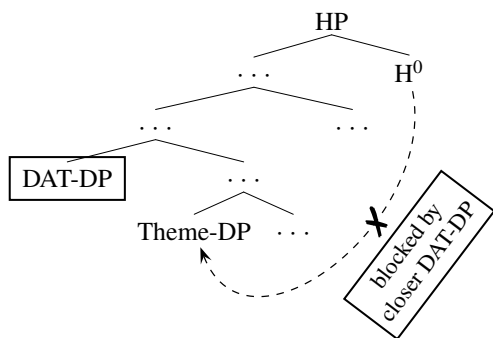[*Sigurðsson & Holmberg 2008:255*]

- Schematic derivations:

(18) MONOTRANSITIVE VERB:
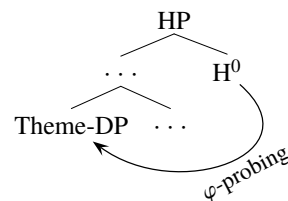
(19) ABS ≫ DAT VERB:

(20) DAT ≫ ABS VERB:

⇒ in (20), and only in that case, the Theme DP cannot be a [participant]-bearer (i.e., 1st/2nd person)

- There are other variants of this view —
    - e.g. for Coon & Keine (2018), it is about the differences between the features that datives and non-datives "expose" to the outside world
        - plus restrictions on which conflicting features can & cannot be "gobbled up" by a single probe
- ↦ But, crucially, this is still about problems that arise when a Theme-oriented probe encounters the dative en route to the Theme.

- As for approaches that, unlike Coon & Keine's, are not based on Relativized Minimality —
    - these are simply ill-equipped to handle the kind of effects shown in (10–11) (DAT ≫ ABS VS. ABS ≫ DAT)
        - cf. Adger & Harbour 2007, for example[8]

3.4. Mini-summary

- The PCC is fundamentally syntactic
- It arises when, due to Relativized Minimality, a Theme-oriented probe encounters an applied argument ("Indirect Argument") first

- The analysis sketched in §3.3 derived the so-called *Strong* PCC
    - found in Basque, among other languages
- However, other variants of the PCC can be afforded the same treatment —
    - insofar as the account of these other variants is also syntactic, and based on Relativized Minimality
- See Nevins 2007 for a treatment of several different variants of the PCC
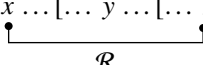   - all within a Relativized Minimality-type framework

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[8] Adger & Harbour's approach is also based on the assumption that the PCC arises because morphology associated with applied objects ("Indirect Objects") is syncretic with the corresponding morphology associated with the Theme—an assumption that is self-evidently false for Basque, which nevertheless exhibits the PCC (§3.1).

4. Head movement

4.1. Preliminaries

- Belletti (1990), Emonds (1970, 1976), Pollock (1989), Travis (1984), …:
  - head-movement is, well, *movement*
  - i.e., it is part of the syntactic computation

- This was crucial, e.g., for Rizzi's (1990) unification of minimality effects
 - namely —

(21) * $[\ldots x \ldots [\ldots y \ldots [\ldots z \ldots]]]$

$\mathcal{R}$

 where *y* c-commands *z* and is itself a candidate for the relation $\mathcal{R}$

  - ↠ this, in turn, was crucial in begetting the *probe-goal* model of syntactic relations (Chomsky 2000, *et seq.*; cf. Frampton 1991)

- Chomsky (1995): head-movement violates the Extension Condition, therefore it cannot be part of syntax

  ⇒ head-movement "relegated to PF"

- In hindsight, this argument is extraordinarily unpersuasive:
  - the Extension Condition is false anyway (Richards 1997, 2001 on Bulgarian inter alia);
  - its apparent effects are epiphenomenal — they are derivative of the real condition, which is Featural Cyclicity (*ibid.*)
  - ↠ importantly, head-movement is fully compatible with Featural Cyclicity.

- Despite its unpersuasive nature, people took this argument very seriously…
  - and so it had to be argued against.
- For example:
  - Lechner (2006, 2007), Hartman (2011), and others:
    - head-movement has semantic effects ⇒ it cannot be "relegated to PF"
- I will argue for the same conclusion (head-movement must be part of syntax)
  - but based on entirely different considerations.

4.2. Head- vs. phrasal-movement: the complementarity of locality

- Abels' (2003) Anti-Locality:
  phrasal movement from [Compl,X] to [Spec,X] is ruled out for any head X
  - in other words: phrasal movement **cannot be maximally local**

(22) a.   b.
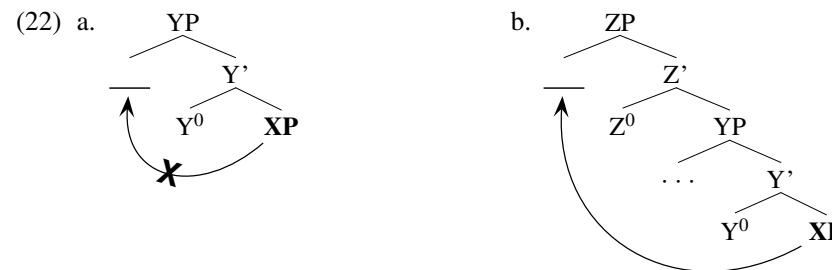
- Travis' (1984) Head Movement Constraint:
  head-movement from X to Y cannot skip an intervening head Z
  - in other words: head-movement **must be maximally local**

(23) a.   b.
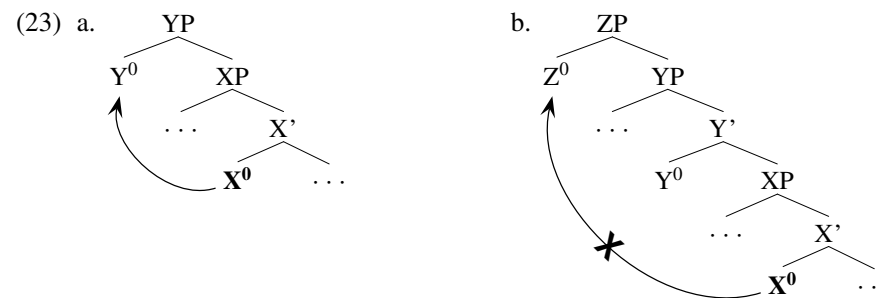
- ↠ OVERALL:
  The locality conditions on phrasal movement and head-movement are **complementary** (as observed in Pesetsky & Torrego 2001)

- Now, phrasal movement is self-evidently part of syntax;
- Imagine that head movement was "post-syntactic" / "on the PF branch" —

- ↠ Why would two operations *in two different modules of the grammar* have precisely complementary locality conditions?
- That would be quite the coincidence.

4.3. Sketch of an analysis

- In Preminger 2019, I argue that syntax "tries" to realize all movement as head movement
  - that is, that syntax aims to move(/dislocate/remerge) as little material as possible
    - ⇒ rendering head movement the preferred mode of movement
- And that phrasal movement arises whenever the conditions on head movement are not met.

↪ *What are these conditions?*

- In a nutshell, I adopt Hornstein's (2009:72–74) and Roberts' (2010:33–40) argument:
  - a probe examining a phrase from the outside will <u>always</u> encounter the phrasal node first

(24)
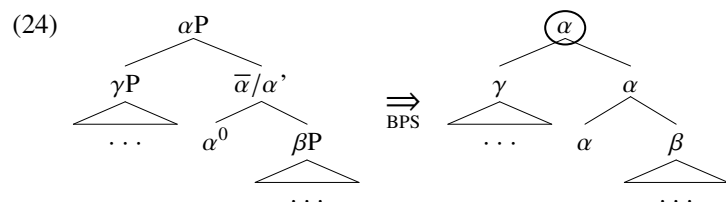
  - and given the assumptions of Bare Phrase Structure (BPS; Chomsky 1994):
    - the phrasal node and the head are one and the same item
  - ⇒ there can be no featural search-criterion that would target the head in lieu of the phrase.

- As it stands, this predicts that head movement would be categorically impossible —
  - obviously, a result that is too strong, in light of our previous conclusions
↪ Crucially, however, the preference for phrasal movement comes out, on these assumptions, to be a particular instance of <u>locality</u>
- And locality conditions are subject to the Principle of Minimal Compliance (PMC; Richards 1998, 2001)

(25) a. * [Koja kniga]$_k$ razprostranjavaše žurnalistât [mâlvata če senatorât
      which book spread journalist rumor that senator
      iska da zabrani t_k] ?
      wanted to ban
      '[Which book]$_k$ did the journalist spread the rumor that the senator wanted to ban t_k?'

   b. ? [Koj žurnalist]$_i$ [koja kniga]$_k$ t_i razprostranjavaše [mâlvata če
      which journalist which book spread rumor that
      senatorât iska da zabrani t_k] ?
      senator wanted to ban
      '[Which journalist]$_i$ t_i spread the rumor that the senator wanted to ban [which book]$_k$?'

   [*Richards 1998:607*]

  - **in fact:** I don't know of a single successful analysis of facts like (25a–b) in any other terms

(26) PRINCIPLE OF MINIMAL COMPLIANCE (revised from Richards 1998:601)[9]

   Once a probe *P* has successfully targeted a goal *G*, any other goal *G′* that meets the same featural search criterion, and is dominated or c-commanded by *G* (=dominated by the mother of *G*), is accessible to subsequent probing by *P* irrespective of locality conditions.

⇒ Given (26): the locality condition requiring that the phrasal node (rather than the head) be targeted **need only be satisfied once**

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[9]Richards' (1998:601) original version:

(i) PRINCIPLE OF MINIMAL COMPLIANCE (original version)

For any dependency *D* that obeys constraint *C*, any elements that are relevant for determining whether *D* obeys *C* can be ignored for the rest of the derivation for purposes of determining whether any other dependency *D′* obeys *C*.

- For a phrase XP that is a complement of a probe H^0 —
  - H^0 will already stand in a prior relation with XP: **c-selection**

(27)

$$H \leadsto XP(=X)$$

$$\cdots \quad X'\,(=X)$$

$$X^0(=X) \quad \cdots$$
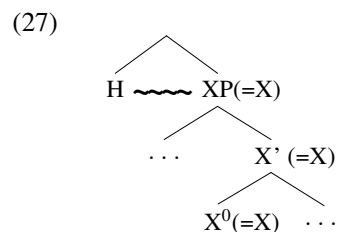
$\Rightarrow$ In configurations like (27), head movement (of X^0 to H^0) will <u>always be possible</u>

(because the PMC will already have been satisfied by **c-selection**)

- But suppose that whenever head movement is *possible*, it is in fact the *only* possible movement type[10]

(28) Minimal Remerge:
If X^0 / X_{min} is movable, move only X^0 / X_{min}.

- If true, this would immediately derive (Abels-style) **anti-locality**:
  - because X^0-to-H^0 head movement in (27) is possible, XP movement to [Spec,HP] is not
- The same principle also allows for **Long Head Movement**
  (Borsley & Kathol 2000, Borsley et al. 1996, Jouitteau 2005, Preminger 2019, Roberts 2004, 2010, Schafer 1994, Stephens 1982)
  - as long as the attracting head stands in <u>some</u> prior relation
    (e.g. φ-agreement) with the X^{max} dominating the moving head

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- ↦ Most importantly:
  - the proposal <u>derives</u> the essential complementarity between head movement and phrasal movement
    - which, in previous accounts, was stipulated (if noticed at all) — e.g. Pesetsky & Torrego 2001
- ↦ But crucially, this all only works if head movement is <u>part of syntax proper</u>
  - and competes with phrasal movement for the realization of the same displacement relations

5. Conclusion

- Phenomena like —
  - · φ-**feature agreement**
  - · **so-called 'morphological' case**
  - · **the Person Case Constraint**
  - · **head movement**
- — which have been variously claimed to be "post-syntactic" or "on the PF branch"
  - ↦ **are actually part of syntax proper**

- This could be argued on conceptual grounds alone
  - i.e., due to these phenomena requiring reference to chains/copies/traces, c-command, and the finer detail of syntactic phrase structure
- What we have seen today is direct arguments in favor of the same conclusions
- To the extent that these arguments hold:
  - ↦ they can be taken as circumstantial evidence that the aforementioned conceptual criteria are, in this case, reliable.

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[10]There is a persistent intuition in the syntactic literature that there is something fundamentally superfluous about phrasal movement. After all, the featural properties of the moving constituent are determined by its head; and so, if movement is a response to the featural needs of some higher attractor, phrasal material outside of the attracted head is not implicated in the mechanism that drives movement in the first place.

Some examples are Chomsky (1995:262ff.) ("The operation Move […] seeks to raise just F *[the formal feature being attracted; O.P.]*"), and Donati (2006:29–30) ("Merge just enough material for convergence").

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