The grammar(s) of ungrammaticality

Omer Preminger*
University of Maryland

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1. Setting the table(s)

Some ways of "making x happen" (for an x that is obligatory):

(1) *Surface Filters*   Chomsky & Lasnik (1977), Chomsky (1995), among many others

		STRUCTURAL CONDITIONS ON x MET?	
		yes	no
x HAPPENS?	yes	*grammaticality* (definitional)	*ungrammaticality* (definitional)
	no	*ungrammaticality* (obligatoriness)	**ungrammaticality**

(2) *Obligatory Rules*   Chomsky & Halle (1968), among many others; recent attempts to revive: López (2007), Preminger (2014), a.o.

		STRUCTURAL CONDITIONS ON x MET?	
		yes	no
x HAPPENS?	yes	*grammaticality* (definitional)	*ungrammaticality* (definitional)
	no	*ungrammaticality* (obligatoriness)	***grammaticality***

- These are not the only ways of modeling obligatoriness, of course
  - to see this, let us observe first what these two views have in common:
    - ↣ they both acknowledge a notion of absolute ill-formedness

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(3) A potential output of generative procedure P is <u>absolutely ill-formed</u> if its ungrammatical status **can** be determined *without examining any of P's other potential outputs*.

- In opposition to (1–2), then, stand the family of approaches that fall under the umbrella of *Harmonic Grammar* (Legendre et al. 1990a,b), *Optimality Theory* (McCarthy & Prince 1995, Prince & Smolensky 1993), et al.
  - ↣ which explicitly take ill-formedness to be a relative notion

(4) A potential output of generative procedure P is <u>relatively ill-formed</u> if its ungrammatical status **cannot** be determined *without examining any of P's other potential outputs*.

. . . .

- Before going any further, I would like to address a common confusion regarding the status of *economy* (Chomsky 1991, 1995, a.o.) vis-à-vis (3–4):
  - the whole point of economy principles is that they do *not* require trans-derivational comparisons
    - ⇒ meaning economy violations fall under (3), not (4)
  - consider, for example, the Minimal Link Condition (MLC):

(5) If $\alpha \gg \beta, \gamma$; $\beta \gg \gamma$; and $\gamma \not\gg \beta$:

['$\gg$' denotes c-command]

　　i. $\alpha \ldots \beta \ldots \gamma$

　　ii. * $\alpha \ldots \beta \ldots \gamma$

  - evaluating whether a given output is or isn't MLC-compliant does not require examining any other outputs
  - the system merely needs to check whether or not the relevant relation can be generated using *iterative top-to-bottom search* —

    Let H be a head with a feature $[F]$ (e.g. interrogative C^0 with $[wh]$), and let XP be H's sister/complement:

    - if XP bears $[F]$, halt search with **XP** as the result
    - if not, and there is a constituent ZP in [Spec,XP], check if ZP bears $[F]$
    - if so, halt search with **ZP** as the result
    - if not, and XP is a phase, halt search with **no result**
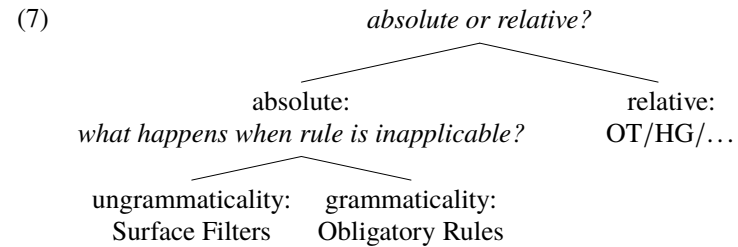   - if not, repeat from start with the complement of X^0 as the new "XP"

– this procedure either generates the output in question, or it doesn't

– crucially, other outputs need not be evaluated to determine this.

CAVEAT: Not everyone who has used the term 'economy' has been careful to use it exclusively for evaluation criteria that have this property; that's just terminological sloppiness, and I will therefore ignore it here.

. . . .

- Observe that, as formulated, neither (3) nor (4) is a sub-case of the other
  ○ in fact, the two are perfectly complementary

- We could formulate a variant of relative ill-formedness, call it *weak relative ill-formedness*, of which (3) (abs. ill-formedness) *is* a sub-case:

(6)   A potential output of generative procedure *P* is <u>relatively ill-formed</u> if its ungrammatical status **may or may not** depend on *P*'s other potential outputs.

  ↬ but this is no hypothesis at all; there is nothing that (6) excludes.

- That said, I think there is little doubt that, when considering a new instance of ungrammaticality —
  ○ **(3) (absolute ill-formedness) should be favored over (4) (relative ill-formedness) as the *null hypothesis***

- That's because absolute ill-formedness is computationally cheaper by pretty much any metric you choose to consider; e.g. —
  ○ in terms of complexity:
    – absolute ill-formedness requires evaluating one output; relative ill-formedness requires evaluating many

  ○ algorithmically:
    – to be computationally tractable, relative ill-formedness requires a mechanism that defines a (finite!) equivalence class of 'competitor' outputs for every possible outputs

  ○ architecturally:
    – absolute ill-formedness is a *local*, *intra-derivational* computation; relative ill-formedness is a *global*, *trans-derivational* one

↬ We are thus dealing with the following "decision tree" (in terms of the nature of grammatical ill-formedness):

(7)   *absolute or relative?*

          absolute: relative:
what happens when rule is inapplicable?   OT/HG/…

ungrammaticality: grammaticality:
   Surface Filters   Obligatory Rules

- Ideally, this decision tree applies once-and-for-all for the entire grammar
  SPOILER: The world is not an ideal place.

- Failing that, it applies once-and-for-all for each module of the grammar
  ○ i.e., syntax works one way, phonology might work another way, and semantics in yet another

- And the worst possible outcome, obviously, is that we get different results in terms of (7) on a per-phenomenon basis
  ○ though, even if this turns out to be the case, it is still possible that there is some independent predictor (other than modular affiliation) that tells us how a given phenomenon will behave w.r.t. (7)

. . . .

In what follows, I will briefly survey several case studies investigating the status of particular empirical phenomena, using (7) as our guide…

2. A few brief case studies

2.1. Absolute ill-formedness, take one: surface filters

The good ol' EPP…

- I'm talking here about the EPP <u>narrowly construed</u>:
  - the requirement that finite clauses in a language like English have an overt subject prior to A-bar movement[1]

(8) a. * I said that ∅ seems (to me) to be a large crowd here.
     b.   I said that there seems (to me) to be a large crowd here.

- Our first decision point in (7) concerns *absolute* vs. *relative* ill-formedness:
  - to determine the ill-formedness of (8a), one need not first assess the well-formedness of (8b)
    - it can be determined directly by examining (8a) itself
  - ⇒ absolute ill-formedness

  - note: logically speaking, we <u>could</u> recast the EPP in terms of relative ill-formedness
    - on that view, the ill-formedness of (8a) would be a consequence of the availability of (8b) —
      - and, in particular, of the availability of (overt) expletives in English
    - this would mean that there is nothing intrinsically wrong with (8a)
      - its ill-formedness being merely a consequence of the existence of (8b)

  - as far as I can see, nothing would go wrong empirically with such an approach; the reason to disfavor it is the <u>general</u> reason outlined above

- Our next decision point in (7) concerns *surface filters* vs. *obligatory rules*:
  - by even talking about (8a–b) in terms of "the EPP", we have implicitly subscribed to a surface-filter treatment of these facts
  - ⇒ what if we assumed an obligatory rule whose effect was to fill [Spec,TP] with an expletive?
    - abstracting away, for now, from the difference between *there* and *it*:
      - the rule could be defined so that it fails when something else is already in [Spec,TP]

    - <u>the problem:</u> when, exactly, should this rule be triggered?
    - we have to ensure that non-expletive subjects have every chance to move to [Spec,TP]
      - so that the application of the *fill-[Spec,TP]-with-an-expletive* rule will be appropriately bled
  - ⇒ the rule can't apply until all of T's features have been discharged— a.k.a. the point in the derivation when C^0 is merged
    - ↪ and this is counter-cyclic.

  - CONCLUSION: the EPP is indeed best modeled as a *surface filter*

2.2. Absolute ill-formedness, take two: obligatory rules

I'm gonna assume you're all familiar with the results in Preminger 2014… If not, the bottom line can be stated as "agreement is an obligatory rule, uninterpretable features don't work"… Instead of rehashing that, let's talk about case.

- <u>Chomsky (1981)</u> [building on Chomsky & Lasnik 1977, as interpreted through the prism of Vergnaud's famous letter]:
  - the need to assign case to noun phrases is a *surface filter* —
    - something along the lines of:

(9) * NP$_{[-case(, +overt?)]}$

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[1]There are other ways to think of even the narrowly-construed EPP, of course. For example: it can be thought of as a requirement that all finite CPs have a subject, full stop (coupled with the assumption that *that*-less embedded CPs lack a CP layer, this then derives something close to the *that*-trace pattern). These differences are not directly relevant to the present discussion, though.

- Much like the idea that (gratuitous) non-agreement can be made ungrammatical via surface filters —

  ⇸ this doesn't really work

  NB: This is independent of what your favorite case calculus is; i.e., this is <u>not</u> a *configurational* vs. *non-configurational* case assignment issue.

- To see this, let us look at a language where 'objects' sometimes show up with ACC, and sometimes without—in this case, Sakha (Turkic)

  ○ first, let us note that there is no sense in which overt ACC marking in Sakha is "optional" / "subject to a PF deletion rule" / etc.[2]

(10) a. Masha salamaat$_1$-*(**y**) **turgennik** t_1 sie-te
Masha porridge-*(**ACC**) **quickly** eat-PAST.3sg.S
'Masha ate the porridge quickly.'

  b. Masha **turgennik** salamaat-(#**y**) sie-te
Masha **quickly** porridge-(#**ACC**) eat-PAST.3sg.S
'Masha ate porridge quickly.' [*Baker & Vinokurova 2010:602*]

  ⇒ there are instances of ACC in Sakha that are obligatory

    – in particular, the ungrammaticality of the ACC-less variant of (10a) is subject to investigation along our decision tree (7)

  ○ now, looking at (10b) you might think you could get away with saying something like "ACC is obligatory except in incorporation contexts" —

    (which would make a fine surface filter)

    — but you can't:[3]

(11) min **ehigi$_1$(-ni)** bügün t kyaj-yax-xyt dien erem-mit-im
I **you(-ACC)** today win-FUT-2pl.S that hope-PST-1sg.S
'I hoped you would win today.' [*Vinokurova 2005:361*]

  ○ when raising-to-object reaches a position to the left of matrix adverbs, ACC is once again obligatory:

(12) Sardaana **Aisen$_1$-*(y)** beqehee bügün t_1 kel-er dien ihit-te
Sardaana **Aisen-*(ACC)** yesterday today come-AOR COMP hear-PAST.3
'Sardaana heard yesterday that Aisen is coming today.' [*V05:363*]

- conversely, when the object remains to the right of embedded-clause adverbs, ACC is impossible:

(13) Sardaana beqehee bügün **Aisen-(*y)** kel-er dien ihit-te
Sardaana yesterday today **Aisen-(*ACC)** come-AOR COMP hear-PAST.3
'Sardaana heard yesterday that Aisen is coming today.' [*V05:363*]

  NB: As pointed out by Mark Baker (p.c.), it's possible that the string in (11) conflates two different structures —

    – one in which *ehigi* ("you") is in the matrix clause (and thus ACC)

    – and one in which it is in a left-peripheral position still within the embedded clause (and thus ACC-less)

  ○ be that as it may, consider the following question:

    ⇸ **What rules out "gratuitous non-ACC" on *Aisen* in (12)?**

- Here are a few putative answers that don't work:

  ○ *because DPs like Aisen need to be assigned case?* [SURFACE FILTER]

    – well, either NOM/unmarked case (available in the embedded clause; cf. (13)) "counts" for the purposes of this need —

      ⇒ we are left with no explanation for the obligatoriness of ACC on *Aisen*, which can already be assigned NOM/unmarked case in the embedded clause

    – or it does not "count" for the purposes of this need —

      ⇒ we erroneously predict ungrammaticality for (13)

  ○ *because ACC case, when available, <u>must</u> be assigned?* [SURFACE FILTER]

    ⇒ again, we erroneously predict ungrammaticality for (13)
    (and, potentially, for (10b) as well)

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[2]As Baker & Vinokurova (2010:602) note, accusative in (10b) is possible only if the object bears contrastive focus, hence the '#' annotation (w.r.t. a neutral context).

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[3]The embedded verb in (11) shows full agreement with the raised embedded subject, in both number and person. Sakha also allows partial agreement (in number but not in person) on the embedded verb, in which case ACC on the raised embedded subject becomes obligatory (rather than optional, as it is in (11)); see Vinokurova (2005:361). Note, however, that the subject in (12) is 3rd person, meaning the string in question is compatible with both a full agreement parse and a partial agreement parse (as far as the agreement morphology in the embedded clause is concerned). Therefore, the possibility of partial agreement does not explain the obligatoriness of accusative in (12) (cf. Baker 2011:893–896).

- This does not exhaust, of course, the maneuvers one could engage in to try to rescue a surface-filter approach to such data —

  ○ we could stipulate that the two, seemingly identical embedded clauses in (12–13) actually differ in their (invisible) functional architecture

    – in a way that assigns NOM case in (13) (thereby inhibiting further movement of *Aisen*);

    – but not in (12) (thereby facilitating movement, "in search of case").

  [Though note that this wouldn't quite work: cf. the position of ACC-less ehigi in (11).]

  ○ we could stipulate that the two, seemingly identical embedding verbs *ihit-te* ("hear-PAST.3") in (12–13) actually differ in their (invisible) capacity to assign ACC

    – so when *ihit-te* <u>can</u> assign ACC, it must;

    – and when it <u>cannot</u>, it doesn't.

  [Though note that this wouldn't quite work, either: it's not quite clear how this could be related to the word-order effects in a way that is consistent across (11–13).]

- I'm not going to try to convince you (not today, anyway) that both of the rescue-attempts described above are dead ends

↪ Instead, I'm just going to go ahead and show you what an obligatory-rules approach to these facts would look like…

. . . .

Assumptions —

  (i) ACC as an obligatory rule:
  assign ACC to any caseless DP that is asymmetrically c-commanded by another caseless DP in the same phase (Preminger 2011a, 2014)

    ○ and remember: "NOM" = caselessness
    (see also Kornfilt & Preminger 2015, on Sakha in particular)

  (ii) VP-level adverbs mark the left edge of the VP phase
  (Baker & Vinokurova 2010)

    ○ and thus, a DP is in the same phase as the subject **iff** it is to the left of where such adverbs would appear

— and that's it.

- The result:

  ○ when ACC can be assigned, it must be assigned

    – e.g. when the downstairs subject has raised all the way out of the matrix VP phase, and into a sufficiently local c-command relation with the matrix subject

  ○ and when ACC cannot be assigned (because the aforementioned structural conditions are not met), it's just not assigned

- And: no spurious homophony of the embedding verb, no ad hoc differences in the invisible functional structure in the embedded clause

  ↪ among other things, this seems to me to be a much easier system to acquire — *think of the children!*

2.3. Relative ill-formedness? Not so fast.

- As in our brief discussion of *economy* (§1), one sometimes encounters patterns that seem at first glance to involve relative ill-formedness— but which, upon closer inspection, don't necessitate such treatment

↪ One such case was explored in great detail in a recent paper by my fellow invited speaker, Ivy Sichel (*LI*, 2014)

- I will present only a brief snippet here:[4]

  ○ in Hebrew relative clauses, some positions allow both gaps and resumptive pronouns, while others allow <u>only</u> resumptive pronouns;

  ○ here is a partial taxonomy:

(14)

	ACC position	oblique position
gap	✓	✗
resumptive pronoun	✓	✓

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[4]The discussion here abstracts away from the *Highest-Subject Restriction* (HSR; see Borer 1984, McCloskey 1990, 2002, 2006, Shlonsky 1992). In the highest subject position within the RC, a resumptive pronoun is illicit, leaving a gap as the only possibility. But in the relevant dialects, this is only the case for the *highest* subject position within the RC, while subjects that are further embedded within the RC allow both gaps and resumptive pronouns. This suggests that whatever the nature of the HSR, it does not necessarily belong as part of the taxonomy in (14).

- As Sichel shows, those resumptives that alternate with a gap behave <u>differently</u> from those that do not; here is one example:

(15) a. ha-tik$_1$ ʃe-tafr-u t_1 / #oto$_1$ la-sar   (Hebrew)
  the-case that-sew.PAST-3pl ___ / #it   DAT.the-minister
  'the case that they pinned on the minister'
       <*idiomatic reading available w/gap, unavailable w/resumptive*>

  b. ha-ec$_1$ ʃe-hu   tipes   al-av$_1$ (/*al-t_1)
   the-tree that-he climb.PAST on-it (/*on-___)
   'the high position he took'
       <*idiomatic reading available w/resumptive;* RECALL: *gap is impossible in oblique position, regardless of reading*>

                 [*Sichel 2014:659-661*]

  ○ at first glance, it looks like the unavailability of an idiomatic reading when a resumptive is used in (15a) is an instance of relative ill-formedness *par excellence*

  ○ i.e., it looks as if—in order to determine whether a pronoun supports reconstruction for idiomatic interpretation—the computation needs to consult the parallel derivation involving a gap

   – if the gap derivation is licit, then the pronoun being evaluated behaves like the tail of a base-generated dependency, and does not support reconstruction for idiomatic interpretation (15a)

   – if the gap derivation is illicit, then the pronoun behaves like the tail of a movement dependency, and supports reconstruction for idiomatic interpretation (15b)

  ↦ but Sichel (2014:672ff.) argues that this is the wrong way to think about such effects

   – instead, suppose that movement dependencies whose tail is in, e.g., an oblique position simply cannot be spelled out with a gap;

   – and are instead spelled out with a pronoun as an "elsewhere" element (see, e.g., Hornstein 2001, Shlonsky 1992)

⇒ When resumptives pass diagnostics for movement (as in (15b)), it is not because the computation consults the fate of the parallel gap derivation —

  ○ it is because there <u>exists</u> a movement derivation resulting in the string containing a pronoun

   – provided that the tail of the dependency is in one of those positions (e.g. oblique) where the spellout of a movement dependency has the shape of a pronoun

            ·

The moral that I would like to draw from this story is the following:

- Suppose we're faced with the following situation:

  ○ structure β (e.g. a resumptive pronoun) has a given property x (e.g. passes movement diagnostics) only if structure α (e.g. a gap) is illicit

- It's still not *necessarily* the case the computation of property x involves relative ill-formedness

- It could be, as in the Sichel case study, that β—when it has property x— is in fact the very output of the derivation that we (mistakenly) assumed leads invariably to α

- In this case, derivations with property x (e.g. a movement dependency) lead to outputs that look like either β (resumptive pronoun) or α (gap) —

  ↦ depending on some property *that can be determined using only the derivation in question* (e.g. where the tail of the movement chain is located)

  ⇒ no need to consult other derivations, and we thus remain within the purview of <u>absolute ill-formedness</u>

2.4. Is there *ever* relative ill-formedness in (or near) syntax?

Are there actual instances of relative ill-formedness in syntax or its interfaces?

- There is a long tradition of invoking relative ill-formedness with regards to binding vs. "accidental" coreference
  - see, e.g., Reinhart (1983, 2006), Fox (2000), and related literature
  - this concerns the preference for placing pairs of expressions that have the same referent in a binding configuration
  - assuming that binding is represented in the syntactic structure (e.g. via semantic indices, or other similar devices):
    - evaluating whether a structure with accidental coreference has a licit meaning-equivalent counterpart involving binding —

      (and should therefore be ruled out)

      — is a canonical instance of *relative ill-formedness*

- Importantly, it has been claimed (esp. in the work of Reinhart and collaborators) that this kind of computation is "costly"
  - in terms of the cognitive load involved in production and processing
  - as well as an attendant delay in acquisition

    (Grodzinsky & Reinhart 1993, Reinhart 1999, 2006, a.o.)

- The point of the current discussion is <u>not</u> to evaluate these claims (which I'm not in a position to do, anyway) —
  - ↠ but to point out that these arguments in favor of relative ill-formedness concern the interaction of syntax with its interfaces
    - in particular, meaning
  - and which syntactic form is considered by the system to be the 'preferred' form to express a given syntactic meaning
  - ⇒ which is not an instance of relative ill-formedness in the syntactic computation proper

NB: There is a related proposal by Rezac (2007, 2011) that applies the Reinhart-Fox approach to repairs of the *Person Case Constraint* (PCC); more on that shortly!

3. Failed feeding

Recall the *obligatory rules* table, repeated from earlier:

(16) *Obligatory Rules* *[=(2)]*

| | | STRUCTURAL CONDITIONS ON x MET? | |
		yes	no
x HAPPENS?	yes	*grammaticality* (definitional)	*ungrammaticality* (definitional)
	no	*ungrammaticality* (obligatoriness)	*grammaticality*

- In Preminger 2011a, 2014, I argued that φ-agreement obeys the logic of obligatory rules;

- While the slogan (or one of them) was "failed agreement is tolerated" —
  - this doesn't mean, of course, that φ-agreement never leads to ungrammaticality

- This is trivially true in the sense that there are two cells in (16) that say 'ungrammaticality'
  - the lower-left corner, which is what I have referred to (elsewhere) as "gratuitous non-agreement"
  - and the upper-right corner, which would amount to instantiating agreement in a configuration where it cannot structurally hold
    - e.g. ignoring the presence of a dative intervener

- But even holding constant that φ-agreement is indeed an obligatory rule, there are other ways it can lead to outright ungrammaticality
  - ↠ namely, as a result of the <u>interaction</u> of multiple instances of obligatoriness

3.1. Some background on case & agreement

- Let us start with the following observation: once we acknowledge that NOM is not assigned in [Spec,TP] —

  - either because it is assigned configurationally, as per Marantz (1991) and others;

  - or because it is not *assigned* at all: what we have come to call "NOM" is simply the absence of valued case (Kornfilt & Preminger 2015, a.o.)

  — the fact that in some languages, (finite) subjects are always NOM is in need of an explanation.

- I have suggested that we think of this in terms of *case-discrimination*

  - by parity with Bobaljik's (2008) characterization of the relation between φ-agreement and case

- This is a change of perspective relative to the canonical treatments of this fact—both within GB and within minimalism[5]

  - DPs aren't NOM by virtue of being finite subjects; **they are finite subjects by virtue of being NOM.**

- This perspective has a number of advantages —

  - among them: it is more easily reconcilable with the existence of languages where subjects are *not* always NOM(/ABS)

    - ergative languages; but even more relevant, Icelandic (which is NOM-ACC, but has some non-NOM subjects)

$\Rightarrow$ Now, if something like this is correct, we might think that it is because (17) holds (in the relevant languages):

(17) The operation responsible for movement to subject position imposes a case requirement (*"must be NOM!"*) on its operand.

↪ But there are two reasons to be skeptical of (17):

  (i) redundancy/duplication

  - we already know, from Bobaljik, that φ-agreement is *case-discriminating*

- what is the relation, then, between φ-agreement's *case-discrimination* and that of movement to subject position?

  - is it a a coincidence that they both exhibit this property? (let's hope not.)

  - do they both exhibit this property because one of them is parasitic on the other?

  - or is there some other elementary operation, constitutive of both φ-agreement and movement, which is where case-discrimination really resides?

  (ii) the actual sets of cases that case-discrimination favors

  - let:

    · C_A be the set of case-markings such that a DP bearing a case $c \in C_A$ is eligible to be targeted for φ-agreement[6]

    · C_S be the set of case-markings such that a DP bearing a case $c \in C_S$ is eligible to move to subject position

  - the following typological picture emerges:

(18)   a. $C_A \subsetneq C_S$: attested   (Icelandic, Basque)

   b. $C_A = C_S$: attested   (Hebrew, English)

   c. $C_A \supsetneq C_S$: **unattested**

  - a couple of things to note here:

    - movement to subject position is never *more* discriminating than φ-agreement

    - when movement to subject position *is* discriminating, it discriminates in exactly the same way as φ-agreement does[7]

      · in other words: $C_A \subsetneq C_S \implies C_S = C_A \cup \overline{C_A}$

↪ Proposal: when movement to subject position is case-discriminating, it's because *it borrows its operand from φ-agreement*

  - i.e., it operates upon whatever DP agreement has already targeted

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[5]In GB, finite subjects were assigned NOM because [Spec,IP]—the canonical subject position—was governed by I[0], and finite I[0] assigned NOM under government. In minimalism, finite subjects are assigned NOM because they are locally c-commanded by, and enter into an Agree relation with, a T[0] head that has inherited the relevant φ- and case-features from C[0].

[6]In line with Bobaljik's (2008) methodology, a non-singleton C_A only arises in situations where *a single agreement marker* can be controlled by DPs with more than one possible case. Thus, for example, a language with both subject and object agreement, each targeting only NOM DPs and ACC DPs respectively, would not yield a C_A with two members.

[7]This fact is not represented in (18) itself.

CAUTION: It may *seem* like we have come full-circle, back to Chomsky's (2000, 2001) theory of case & agreement. We have not.

- The dependence of movement on agreement here is far from general
  - it only holds of movement to subject position, and only in some languages (e.g. not in Basque or Icelandic)

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So what have we learned?

- In languages where subjects are case-restricted, φ-agreement stands in a *feeding* relation with movement to canonical subject position
  - in that the latter doesn't choose its operand on its own, and instead targets whichever operand the former (φ-agreement) chose

3.2. Feeding requires food!

- This feeding relation furnishes another way in which φ-agreement can be involved in ungrammaticality

- Consider the following scenario:
  - **(i)** the language is one in which subjects are case-restricted
  - **(ii)** we're looking at a string that can only be parsed as having involved movement to subject position
    - e.g. the language is head-initial, and there is a non-expletive DP to the left of T^0
  - **(iii)** there is no parse of this string where agreement with the subject DP could have successfully applied

    Remember, we're living in a probe-goal world: finite agreement does not "target" [Spec,TP]—things that have already been targeted for agreement then move to [Spec,TP]!

- If we are correct about the feeding relation between φ-agreement and movement to subject position, such a string should be ungrammatical
  - because there is simply no way to generate it, given our assumptions

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- We start with Icelandic, which is <u>not</u> a case-restricted subjects language
  - just to establish that the configuration we will be looking at is indeed one where agreement cannot successfully apply

(19) það [finnst(/*finnast)] [mörgum stúdentum]$_{DAT}$ [$_{SC}$ tölvan ljót].
EXPL find.SG/*find.PL many students.PL.DAT computer.the.SG.NOM ugly
'Many students find the computer ugly.'

(20) það [finnst(/*finnast)] [einhverjum stúdent]$_{DAT}$ [$_{SC}$ tölvurnar ljótar].
EXPL find.SG/*find.PL some student.SG.DAT computers.the.PL.NOM ugly
'Some student finds the computers ugly.'

(21) [Einhverjum stúdent]$_1$ [finnast] t$_1$ [$_{SC}$ tölvurnar ljótar].
some student.SG.DAT find.PL computers.the.PL.NOM ugly
'Some student finds the computers ugly.'

[*Holmberg & Hróarsdóttir 2003:999–1006*]

⇒ things to note:
  - dative DPs cannot[8] transfer their own φ-feature values to the finite agreement probe (19)
  - but they stop the probe (20) from being able to reach what would otherwise be (21) a viable agreement target

- But now consider (22):

(22) Jean$_1$ semble (?*à Marie) [t$_1$ avoir du talent].
Jean seems to Marie have.INF of talent
'Jean seems (to Marie) to have talent.' [*McGinnis 1998:90–91*]

  - here, unlike in (20), the presence of a dative intervener yields actual ungrammaticality
    - rather than, e.g., some 'default'
    NB: Cliticizing the dative experiencer has the same effect as omitting it, rendering the sentence grammatical.

  ⇒ *Why this difference between the Icelandic (20) and the French (22)?*

---

[8]This is somewhat of an oversimplification (cf. Rezac 2008a, 2011), but it is innocuous as far as Icelandic and French, the languages discussed here, are concerned.

↠ The approach sketched above provides the answer:

- ○ an example like the Icelandic (20) involves agreement failing to apply in a context where its structural conditions are not met
  - – presumably, the structural conditions for agreement include something like "no interveners in the way"
- ○ and if you consult your handy little tables...

(23) *Obligatory Rules* [=(16)]

		STRUCTURAL CONDITIONS ON x MET?	
		yes	no
x HAPPENS?	yes	*grammaticality* (definitional)	*ungrammaticality* (definitional)
	no	*ungrammaticality* (obligatoriness)	***grammaticality***

... you will see that that is predicted to be grammatical.

- ○ but in the French (22), we see the subject (*Jean*) to the left of the finite verb (*semble*)
  - ⇒ meaning movement to subject position must have applied to *Jean*
- ○ but *Jean* could not have been targeted for agreement
  - – by parity of reasoning with the Icelandic case
- ○ and since movement to subject position (in a case-restricted subject language) could only apply to a DP that agreement has successfully targeted —
  - ↠ there is no derivation that leads to (22).

NB: The same logic holds regardless of whether the obligation to move DPs to subject position is itself driven by a surface filter or an obligatory rule
- ○ though the existence of expletives and inversion constructions favors the latter view (see Preminger 2014:221–227 for discussion)

- • I feel compelled to also point out that there is really nothing particularly revolutionary about this kind of system —
  - ○ it's like the failure of the rule that devoices plural /-z/ to apply in *sick*, where no -*z* has been epenthesized
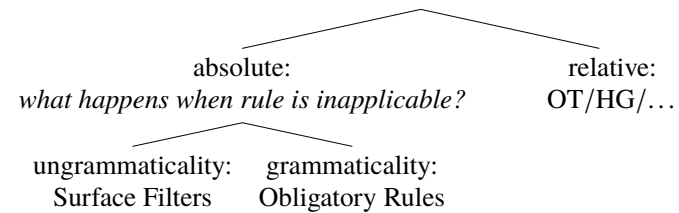
4. The money question: what is the architecture of obligatoriness in grammar?

- • The talk so far has been a lot of existence proofs, or perhaps even just proofs-of-concept
- • The big question is how the three types of obligatoriness (repeated below) are distributed, if at all, among the different modules of grammar

(24) *absolute or relative?* [=(7)]

```
                absolute or relative?
               /                     \
        absolute:                    relative:
what happens when rule is inapplicable?   OT/HG/...
       /            \
ungrammaticality:   grammaticality:
Surface Filters     Obligatory Rules
```

- • In my earlier work, I suggested that, given that the pièce de résistance of surface filters (uninterpretable features) doesn't work —
  - ○ if there is any hope of a <u>uniform</u> approach to obligatoriness in syntax, it has to be in the form of *obligatory rules*

NB: On the failures of a relative ill-formedness (a.k.a. violable constraints, a.k.a. Optimality Theory) approach to computation within syntax, see Preminger (2014:170–174).

- • To achieve this, one has to deal with a considerable accumulation of proposed *surface filters* in syntactic theory—examples:
  - ○ the EPP:
    - – possible solution: relegate out of syntax and into...
      - · PF (Bobaljik 2002, Landau 2007)
      - · prosody (McFadden 2012, McFadden & Sundaresan 2015, Richards 2010)
  - ○ the Case Filter:
    - – possible (probable) solution: it doesn't exist
      - · empirical residue: McFadden (2004, 2012); Levin (2015)
      - · but also...
  - ○ the Person Licensing Condition (PLC):

(25) <u>*Person Licensing Condition*</u>   [*adapted from Béjar & Rezac 2003*]

A [participant] feature on a DP must take part in a valuation relation.[9]

- Let us disentangle...
  - ○ "What facts motivate this principle?"
    from
  - ○ "Why would such a principle hold?" or
    "What would such a principle derive from?"

  ... and concentrate on the former, today (partly because I have precious little to say about the latter!)

- The *Person Case Constraint* (PCC):[10]

(26) a. Zuk   niri   liburu-a   saldu
         you.ERG me.DAT book-ART$_{sg}$(ABS) sold
         d-i-∅-da-zu.   (Basque)
         3.ABS-√-sg.ABS-1sg.DAT-2sg.ERG
         'You have sold the book to me.'

     b. * Zuk   harakin-ari   ni   saldu
          you.ERG butcher-ART$_{sg}$.DAT me(ABS) sold
          n-(a)i-∅-o-zu.
          1.ABS-√-sg.ABS-3sg.DAT-2sg.ERG
          'You have sold me to the butcher.'   [*Laka 1996*]

(27) <u>*PCC$_{STRONG}$*</u>

      * 1st/2nd person direct object in the presence of an indirect object

- The PCC is a syntactic effect, not a morphological one
  - ○ *pace* Bonet 1991, 1994, for example

- Evidence: (Albizu 1997, Rezac 2008b)
  - ○ Basque has two classes of 2-place unaccusatives
  - ○ one class where DAT ≫ ABS, and one class where ABS ≫ DAT

---

[9]The feature [participant] is what distinguishes 1st/2nd person pronouns from all other nominal expressions, including 3rd person pronouns.

[10]On what "STRONG" means in the context of (27)—and what it contrasts with—see Nevins (2007) and references therein.

(28) DAT ≫ ABS:

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

  b. * Kepa   bere buru-a-ri   gustatzen zako.
       Kepa(ABS)   his head-ART$_{sg}$-DAT liking   AUX

(29) ABS ≫ DAT:

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

  b. 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; see also Elordieta 2001*]

↪ but crucially, only the DAT ≫ ABS ones show the PCC:

(30) a. Miren-i   gozoki-ak   gusta-tzen ∅-zai-zki-o.
         Miren-DAT sweet-ART$_{pl}$(ABS) like-IMPF   3.ABS-√-pl.ABS-3sg.DAT
         'Miren likes candy.'

     b. */?? Ni   Miren-i   gusta-tzen [na-tzai-∅-o].
            me(ABS) Miren-DAT like-IMPF   1.ABS-√-sg.ABS-3sg.DAT
            'Miren likes me.'

(31) Ni   Peru-ri   hurbildu [na-tzai-∅-o].
     me(ABS) Peru-DAT   approach 1.ABS-√-sg.ABS-3sg.DAT
     'I approached Peru.'   [*Albizu 1997:21, Rezac 2008b:73*]

⇒ this shows that the PCC is fundamentally syntactic:

  – the morphological "target forms" in (30b) and in (31) are identical

  – and the distinction is in the *hierarchical* organization of arguments

(32)

- 11 -
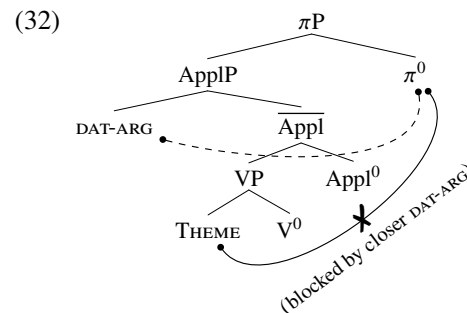
⇝ But now, the PLC seems like a bona fide *surface filter*

  ⇒ is it a problem for the view of syntax as entirely based in *obligatory rules*?

- First hint that the PLC might not itself be part of (narrow) syntax:
  ○ it seems that even domains that are permeable to both A-movement and agreement are "impermeable" to the PLC

(33) 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.'

(34) 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/mundu   virðast þeir   vera hæfir.
         him.DAT would.3sg/would.3pl seem   they.NOM be   competent
         'They would seem competent to him.'

                                         [*Sigurðsson & Holmberg 2008:255*]

    – the relevant domain looks like something along the lines of the old "Complete Functional Complex"
       · i.e., domain of predication—which is a semantic primitive, not a syntactic one

- Second hint: relative ill-formedness (Rezac 2008b, 2011)
  ○ not only does the PLC fall outside the domain of *obligatory rules*, it falls outside the domain of *absolute ill-formedness* computations entirely

○ in some varieties of Basque, there exists a repair for those PCC-violating 2-place unaccusatives seen above —
   – the ABS is "recast" as an ergative, with the attendant change in agreement morphology (a phenomenon known as "absolute displacement"):

(35) Itxaso-ri   zu-k   gustatzen d-i-o-zu.
     Itxaso-DAT you-ERG liking   3.ABS-√-3sg.DAT-2sg.ERG
     'Itxaso likes you.'   [*Rezac 2008b:81*]

   – crucially, this option is not some sort of 'paraphrase'; it is completely unavailable when the PLC is not violated by the original structure
      · this is so with ABS ≫ DAT verbs:

(36) * Zu-k   Itxaso-ri   etortzen d-i-o-zu.
       you-ERG Itxaso-DAT coming 3.ABS-√-3sg.DAT-2sg.ERG
       'You are coming to Itxaso.'   [*Rezac 2008b:81*]

      · as well as with DAT ≫ ABS where the ABS is not 1st/2nd person (and thus, are not PLC-violating):

(37) Itxaso-ri   hark   gustatzen d-i-o-∅
     Itxaso-DAT him.ERG liking   3.ABS-√-3sg.DAT-3sg.ERG
     'Itxaso likes him.'   [*Rezac 2008b:81*]

○ since (36–37) are quite disparate, structurally, the prospects for a reinterpretation of this relative ill-formedness pattern (along the lines of what we saw in Sichel's pronoun case) seem bleak

⇒ the PLC, and its related computation, seem to instantiate real reference-set computation, along the lines of the Reinhart-Fox system

. . . .

- So, to summarize —
  ○ prospects for a syntax that is entirely based on surface filters: *as best as I can see, none*
  ○ prospects for a syntax that is entirely based on obligatory rules, with all other kinds of obligatoriness relegated to other modules of the grammar: *still kicking*

5. Conclusion

- We reviewed different models for obligatoriness / (un)grammaticality / "making the grammar do things"

- We reviewed some case studies pertaining to these different models

- I have tried to sketch, and argue for, a model of grammar in which:
  - syntax is purely based on *obligatory rules*
  - all instances of *surface filters* are relegated to extra-syntactic modules of grammar
  - incl. some residue of computations that fall completely outside the purview of *absolute ill-formedness*
    - namely, reference-set computations (an instance of *relative ill-formedness*)

- Of course, there remain challenges to this view —
  - and while I am writing these lines before the workshop, I suspect we might hear about some of them by the time I deliver these lines to you!

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