LSA Institute 2019: Advanced Syntax (handout 2)
Exfoliation - part 1

1. Challenges concerning the source of nominative case

The standard case-theory + agreement theory of NOM (review)

(1) Flavors of T: lexical choice
T may come from the lexicon (i) with or (ii) without a set of φ-features. A finite clause in a language like English results from choice (i), and an infinitival clause reflects choice (ii). Finiteness is a matter of lexical choice.

(2) Agree-based NOM
φ-featural agreement with T assigns/values NOM.

(3) Case Filter
DP must be licensed by Case assignment/valuation.

(4) General predictions of the standard theory of NOM and the Case Filter ...
   a. Class 1: ... concerning presence or absence of agreement with T
      A nominal whose only possible source of licensing is φ-feature agreement with T will suffer one of the following fates if T cannot enter into an agreement relation with it:
         1. salvation by Internal Merge: it moves to a position where it is licensed by some other element (e.g. an ACC-licenser, or the agreeing T of a higher clause); or
         2. salvation by External Merge: some later-merged element licenses it in situ; or
         3. no salvation: assign star if neither of these possibilities is realized.

      • Rephrasing the prediction: a nominal specifier of TP without subject agreement obligatorily undergoes Raising to Subject (R1) or Raising to Object/Spec,VP (R2) (ignoring English for-infinities for now).

     b. Class 2: ... concerning non-nominals
        If the properties summarized under "Rephrasing" above are part of the same story as the story that motivated case theory for complements (e.g. (5)), the obligatoriness of R1 and R2 should not be detected with non-nominals.

(5) Nominal vs. non-nominal complements differ in case needs
   a. We are sure [that the world is round].
      We are sure *(of) the world's roundness.
   b. my proof [that the world is round]
      my proof *(of) the world's roundness

Recall the well-known challenge to class 1 from Icelandic

(6) Quirky subject, nominative object in finite clause
   a. Barninnu batnaði veikin.
      the.child,DAT recovered.from,3SG the.disease,NOM
      ‘The child recovered from the disease.’
   b. Barninnu bótnuðu veikirnar.
      the.child,DAT recovered.from,3PL the.diseases,NOM
      ‘The child recovered from the disease.’

(7) Quirky subject, nominative object in an R2 infinitival complement
   Laekninni, telur barninnu (i barnaskap sinum) batnaði veikin.
   the.doctor,NOM believes the.child,DAT (in foolishness his) recovered.from,INF the.disease,NOM
   ‘The doctor, believes the child (in his foolishness) to have recovered from the disease.’

   • The embedded NOM object in (7) is unexpected in theories of case and nominal licensing that have (1), (2), and (3) as tenets.
   • "... [I]f tensed inflection with agreement is the source of NOM case on the objects of DAT subject verbs, we would expect the object to lose its NOM case in an infinitive, because infinitive inflection does not assign NOM. Instead [...], such DAT subject/NOM object verbs still take a NOM object in infinitival constructions although there is no element around to assign NOM case." (Marantz 1991 "Case and Licensing", 18-19)

A less well-known challenge to class 2 predictions

(8) The case needs of nominal subjects in the standard theory...
   a. Bill considers Mary to have solved the problem.
   b. Mary seems to speak French well.
   c. *It seems Mary to have solved the problem.
   d. *It was believed Mary to speak French well.
   e. *Mary is aware Bill to be the best candidate.
   f. *Mary's belief it to have been raining

(9) ... are mirrored by CP subjects...
   a. Bill considers [that the world is round] to be a tragedy
   b. [That the world is round] seems to be a tragedy.
   c. *It seems [that the world is round] to be a tragedy.
   d. *It was believed [that the world is round] to be a tragedy.
   e. *Mary is aware [that the world is round] to be a tragedy
   f. *Mary's belief [that the world is round] to be a tragedy

   (but perhaps CP subjects are actually nominal?)
Overview of the approach

2. An alternative approach to the NOM challenges

Overview of the approach

- At least one of the tenets of standard case theory from section 1 must be wrong:
  1. Whether a clause is finite or infinitival is a matter of lexical choice.
  2. NOM is assigned under φ-featural agreement with T.
  3. Nominals must be case-licensed.

Proposal: challenge tenet (1), instead of (2) or (3).

In a nutshell:
- In languages like English, the non-finiteness of embedded clauses in R1 and R2 constructions is a consequence, not a trigger of the raising of the embedded subject.
- Whether a clause is finite or infinitival is not a matter of choosing finite or non-finite T from the lexicon, but is derivationally determined.
- All clauses begin their derivational lives as full finite CPs. Non-finite clauses are reduced structures (toP) lacking CP and TP layers...
- ...as a consequence of an operation of Exfoliation that removes these layers when an element in Spec, toP is accessed by an R1 or R2 probe — in order to make that Spec, toP the edge of the embedded-clause phase.

Relevance to NOM challenges:
- **Class 2 (infinitive) challenges:**
  - Subjects of clauses that end up infinitival have no special case-theoretic problem.
  - The starred examples in paradigms (8)-(11) have nothing to do with case theory — but instead are instances of illegal Exfoliation when its structural description is not met: the subject didn't move anywhere.
- **Class 1 (Icelandic) challenges:** Because every clause starts as a full and finite CP, every clause starts its life endowed with a T that can assign NOM.
  - The embedded clause in (7) is infinitival because its quirky subject underwent R2 raising, triggering Exfoliation.
  - The NOM object in (7) is licensed and bears NOM because its clause had a T that agreed with it before Exfoliation took place. NOM here is a memory of the clause's past as a full finite CP.

Some presuppositions of the "lexicalist" standard theory

Standard lexicalist view of the past four decades (Kiparsky & Kiparsky 1970, Bresnan 1972)
- The finiteness of a clause and presence/absence of C is a result of the lexical items freely chosen to participate in the derivation that built that clause (Lexical Array).
- For example: if [+Past] and C do not form part of the Lexical Array chosen to build a particular clause, the result will be a reduced infinitive. Conversely, if [+Past] and C are chosen, the result will be a full finite CP.

How the behavior of R1 and R2 looks from the standard lexicalist perspective
- Given that the derivation has built an infinitive, how does the system solve the problems that follow from having chosen to build an infinitive?
- **For example:** The subject of an English infinitive has a licensing problem that can be solved (only) if an R1 or R2 probe successfully locates it, so that that movement and case-licensing becomes possible. This is possible only across a reduced infinitival clause boundary but not across an unreduced one, due to [various proposals].
An alternative "derivationalist" view

- Abandon the assumption that infinitives and reduced clauses are "born, not made".
- The interaction between a higher probe (R1, R2 or Ā) and an embedded subject precedes the differentiation of the embedded clause into finite vs. non-finite — and triggers its reduction to an infinitive.
- Specifically, probing of an embedded subject by a clause-external probe triggers the deletion of the C and T layers of the clause, creating a reduced infinitive from what would otherwise be a full finite CP.

Crucial background for the alternative view

12. **Full CP hypothesis**
   Every embedded clause is built by Merge as a full finite CP, and may be reduced to a less-than-full clause only as a consequence of later derivational processes.
   (plausible extension: each phase must be fully built)

13. **Nature of to**
   a. English to heads a projection between T and vP
   b. English to is overt only when it heads its clause

- Rule (13b) is an English-specific variant of a more general phenomenon cross-linguistically — relevant to the analysis of a variety of alternations found in languages such as Bùlì (aài/àll; Sulemana 2018), Kreyòl (ke/ki) and French (que/qui) and West Flemish (da/die; Bennis & Haegeman 1984).

14. **Exposure**
   α is exposed iff it heads a phase.

15. **Exposure Condition**
   A functional head is overt only if exposed.

Exfoliation

16. **Embedded subject raises to specifier of TP (and remains there)**

Mary proved conclusively that Sue deserved the prize.

- Consider now a variant of (16) in which the subject Sue has raised to form a specifier of to within the embedded clause, responding to an EPP property of to — but has not raised further to form a specifier of T:

(17) **Embedded subject raises only to specifier of toP**

```
 VP
  prove
   C CP TP
     T =Past toP
       DP Sue (to) to' vP
deserve the prize
```

- Suppose prove in (17) bears an R2 probe with an EPP property that triggers movement, and Sue is the nearest goal...

18. **Probing across a clause boundary**
   a. **Phase penetrability**: A probe π with an EPP property can locate a goal γ across a CP boundary, even if γ does not occupy the edge of that CP...
   b. **Phase impenetrability**: ...but γ can move to π only if occupies the edge of CP.

- If (18) is correct, Sue in (17) can be located by the R2 probe on prove.
- But unless some operation places Sue at the edge of the embedded clause, it cannot satisfy the EPP requirements of the R2 probe on prove.
- One might imagine that the Ā-property of movement C prevents it from serving as an intermediate landing site for R2 movement of Sue. Alternatively:
(19) **Anti-locality**
Movement to the edge of CP must cross a phase boundary.¹

(→ ✓ spec,\(vP\) to spec,clauseP, *movement to spec,clauseP from outside \(vP\))

(20) **Exfoliation**

a. **Structural Description:** \(\ldots \beta \ldots [YP_\text{(PHASE)} \ldots [\gamma_\text{P}_\text{(NON-PHASE)} \ldots \alpha \ldots]]\), where
   (i) YP is the only phase boundary between \(\beta\) and \(\alpha\),
   (ii) \(\alpha\) occupies the edge of \(\gamma_\text{P}\), and
   (iii) a movement-triggering probe on \(\beta\) has located \(\alpha\) as its goal

b. **Structural Change:** Replace YP with \(\gamma_\text{P}\), which inherits the phasal property of its predecessor.

(21) **Example:** infinitive-forming exfoliation triggered by an R2 probe on \(V\)

![Diagram of exfoliation](image)

Mary proved Sue conclusively __ to deserve the prize

3. **Argument #1 for infinitivization as a process:**

   **Claim:** The embedded clause does not become an infinitive unless its subject raises out of it — regardless of its syntactic category and case needs (or lack thereof).

(22) **Probes that can extract an embedded subject in English**

a. R2 probe — triggering movement to Spec,VP; present on [a subset of] active instances of \(V\) (but not passive or unaccusative verbs, or \(A\) or \(N\))

b. R1 probe — triggering movement to Spec,\(vP\); present on unaccusative \(v\) or \(a\) taking a subset of predicates as their complement (usable as an intermediate landing site on the way to a case position in passive and unaccusative configurations if no intervener blocks the movement)

c. Ā-probe — triggering movement to Spec, \(vP\); present on \(v\), \(a\), and \(n\)

- In (8a-b) [repeated below], the embedded subject has moved in response to an R2 and R1 probe, respectively — but in (8c-f) it has remained in the embedded clause, for lack of a higher probe moving it out, so Exfoliation cannot apply.

(8) [repeated]

a. Bill considers Mary to have solved the problem.
b. Mary seems to speak French well.
c. *It seems Mary to have solved the problem.
d. *It was believed Mary to speak French well.
e. *Mary is aware Bill to be the best candidate.
f. *Mary's belief it to have been raining

---

¹ *Improvement:* "Movement to the edge of a phase from a non-\(\theta\)-position must cross a phase boundary." — which reduces to a "lethal ambiguity" condition on probing. See below.
Case and the subject of infinitives:

- On an Exfoliation approach to clause size, the subject of an embedded infinitive has no case-licensing problem — since its clause was a full finite CP until Exfoliation applied.

Exfoliation as a last resort:

- Since Exfoliation is in effect a last resort for solving the problem of goals too far from the phase edge, Exfoliation only applies to a clause when its subject (or other element in the upper clausal domain) is a goal with this problem. Untriggered infinitivization should yield unacceptability...

- ... which is why phrases that seem to have no case needs as complements show the same paradigm as nominals when the subject position of infinitives vs. finite clauses is at issue:

(23) CP subjects [repeated]

a. Bill considers [that the world is round] to be a tragedy.

b. [That the world is round] seems to be a tragedy.

c. *It seems [that the world is round] to be a tragedy.

d. *It was believed [that the world is round] to be a tragedy.

e. *Mary is aware [that the world is round] to be a tragedy.

(24) Predicate-inversion (AP) subjects [repeated]

a. I consider [even more important than linguistics] ___ to be the fate of the planet.

b. [Even more important than linguistics] seems ___ to be the fate of the planet.

c. [Even more important than linguistics] I believe ___ to be the fate of the planet.

d. *Mary was assured [even more important than linguistics] to be the fate of the planet.

e. *It is likely [even more important than linguistics] to be the fate of the planet.

(25) Fronted locatives in Locative Inversion [repeated]

a. *I consider [in this room] ___ to be found the finest examples of Greek sculpture.

b. [In this room] seem ___ to be found the finest examples of Greek sculpture.

c. [In this room] I believe ___ to be found the finest examples of Greek sculpture.

d. *Mary was assured [in this room] to be found the finest examples of Greek sculpture.

e. *It is likely [in this room] to be found the finest examples of Greek sculpture.

4. Interlude: the complementizer-trace effect (preview) and the unity of A and Ā-movement

- Subject extraction in English does not require infinitivization. Subject extraction is compatible with the retention of tense and agreement in the embedded clause.

- Famous property of English: Subject extraction from a finite clause may not obligatorily trigger infinitivization — but it does trigger the absence of the complementizer. This is the complementizer-trace effect:

(26)a. Mary, who I believe ___ to be the best candidate...

b. Mary, who I believe ___ is the best candidate...

c. *Mary, who I believe that ___ is the best candidate...

Proposal

- Set-up: Ā-probe on higher v can find an embedded subject; Ā-probe on C cannot interact with it due to anti-locality.

- Both to and T bear φ-probes with the EPP property.

- Exfoliation that deletes TP and CP also deletes EPP on T, eliminating the violation if the subject never raised that far ("salvation by deletion").

- But the subject may alternatively move to spec,TP — in which case subject extraction will only Exfoliate the CP layer, leaving TP intact.

(27) v

A-probe

V

CP

C

TP

Exfoliation removes this portion of the embedded clause

Some languages: Hyperraising banned.
Some languages: Hyperraising possible, with that-trace effects!

- What about A-movement from Spec,TP (Hyper-raising)?
Lusaamia (Bantu, Kenya) shows hyper-raising with a *that*-trace effect: "The reconstructed reading is blocked by the presence of a complementizer in the embedded clause." (Carstens & Diercks 2013)

(28) **Scenario:** You find that the watering hole is empty. Though there are no cows on site, you can say:

a. **no raising**
   Bi-bonekhana koti eng’ombe chi-ng’were amachi 8SA-appear that 10cow 10SA-drink 6water
   ‘It appears that the cows drank the water’

b. **R1, no complementizer**
   Eng’ombe chi-bonekhana chi-ng’were amachi 10cow 10SA-appear 10SA-drink 6water
   ‘The cows appear to have drunk the water’

... but not:

c. **R1, complementizer**
   *Eng’ombe chi-bonekhana koti chi-ng’were amachi 10cow 10SA-appear that 10SA-drink 6water
   ‘The cows appear as if they have drunk the water’ (Carstens & Diercks 2013)

Moro (Kordofanian, Sudan): Hyper-raising incompatible with complementizer (as is subject relativization) (Jenks & Rose)

(29) **Complementizer in hyper-raising**

a. Kuku g-a-rí-má-ta [(*tá) .getAction -genzg-á ugi ]
   K. clg-RTC-continue-IPFV COMPL. clg-DPC1-chop-IPFV clg.tree
   ‘Kuku kept chopping the tree’

b. orán g-a-n-ó Kuku-η [(*tá) .getAction -genzg-á swár ]
   man clg-RTC-hear-PPFV Kuku-ACC COMPL. clg-DPC1-close-PPFV clg.tree
   ‘The man heard Kuku close the door’

**Languages that permit Hyper-raising without a *that*-trace effect**

- e.g. Zulu (Halpert 2018), Lubukusu (Carstens & Diercks 2013): escape by other means, perhaps
- e.g. Balkan Sprachbund, including Greek: the skipping strategy?

---

**English (see paper for the story)**

(30) **Hyper-raising in English**

a. %McDonald’s has also seen an increase in the standard of hygiene across restaurants which ___ is felt ___ is attributable to the fact that the programme is now specifically about McDonald’s restaurants.

b. %A recording was also made of each School and was then used to transcribe the minutes and any quotes which ___ were felt ___ were relevant to the process.

c. %[The church leaders] disagreed as to which books ___ were thought ___ were “Godly inspired”.
   *(Danckaert and Haegeman 2017, 27-28, ex. (1), (4), % added)*

(31) **Complementizer-trace effect with hyper-raising (English)**

These organisations will now have the opportunity to bid for the new city funds, which are hoped (*that) ___ will help up to 150 families facing eviction.
   *(Danckaert and Haegeman 2017, 30, ex. (9))*

---

**Beyond anti-locality:**

(32) **No that-trace Effect with extraction of adjunct from a vP external position**

a. Why do you think [(that) he left early]? (Lasnik and Saito 1984, 255 ex. 80)

b. Why did the reporter say [(that) Mary won’t vote for the bill]? (Lasnik and Saito 1984, 255 ex. 80)

c. According to which meteorologist did Sue say [(that) it wasn’t going to rain tomorrow]?

So maybe anti-locality effects derive from something else...

(33) **Lethal Ambiguity Antilocality Constraint (LAAC)**

Movement of α to the edge of a phase π is possible only if α occupies a unique position visible in π.

(77) **Visible**

α is visible in a phase π iff

a. every phase that dominates α also dominates π; or

b. α occupies the edge of phase ρ and every phase that dominates ρ also dominates π (i.e. ρ is the phase constructed immediately before π).

---

5. **Argument #2 for infinitivization as a process:** no visible case licenser yet nominals are ok (the Kayne paradigm)

**Derivational opacity and case-licensing**

- A moved nominal subject of a subordinate clause infinitivized by Exfoliation was assigned NOM and case-licensed in that subordinate clause ...
- ... but its case-licenser is not present on the surface, an instance of derivational opacity.
• Standard instances of R1 and R2 raise the nominal to a position where it receives a second case (more on this below), and thus are equally compatible with the koiné proposal that the nominal never was case-licensed in the embedded clause.

• A legal configuration in which raising triggers Exfoliation but does not target a new case position, however, will provide an argument for the derivational opacity of NOM assignment posited by the Exfoliation theory.

Setup: Configuration in which the subject σ of an embedded clause may not be accessed by an R2 ϕ-probe in the higher clause, either because:
(a) the higher clause lacks the R2 ϕ-probe, or
(b) an intervening nominal blocks contact between the R2 probe in the higher clause and σ.

From an Exfoliation perspective...
... the embedded clause in situations (a) and (b) may be infinitival only if a higher probe other than R2 successfully extracts it from the embedded clause.
  o In situation (a), the extractor could be either an R1 probe or an Ā-probe.
  o In situation (b), the extractor could only be an Ā-probe, since the same minimality considerations that would block the ϕ-probe R2 should block R1.

From a Lexicalist perspective without Exfoliation...
... in which infinitives are born rather than made, situations (a) and (b) would both look like additional puzzles of case theory — case-licensing of the embedded subject only if it undergoes Ā-movement or R1.

Situation (a) instantiated:

(34) **English wager-class verbs** (Postal 1974; Pesetsky 1991)
  a. *We wagered Mary to be the best candidate.*
  b. Mary, who we wagered to be the most likely winner...
  c. Mary was wagered to be the most likely winner.

(35) **French believe-class verbs** (Kayne 1980)
  a. *Je croyais cet homme être arrivé.*
     I believed this man AUX.INF arrived
     'I believed this man to have arrived.'
  b. l'homme que je croyais être arrivé... the man that I believed AUX.INF arrived
     'the man that I believed to have arrived...'
  c. Marie a longtemps été crue avoir résolu ce problème. Marie AUX long.time been believe.FEM have solved this problem
     (also 'consider', 'suppose', 'say', 'guess'...; Pollock 1984)

(36) **Stipulation**
The verbs that show the paradigm of (34) and (35) lack an R2 probe.

**Situation (b) instantiated:**

(37) **Double-object infinitive-taking verbs**
  a. I assure you Mary to be the best candidate.
  b. Mary was assured you __ to be the best candidate...
  c. Mary, who I assure you __ to be the best candidate... (Kayne 1984)

The puzzle in the lexicalist koiné theory: *How is the embedded subject licensed?*

The puzzle in an Exfoliation world: *Why did the embedded clause become an infinitive?*

In a lexicalist world:

• **Premise:** the infinitival clause in (37b) is non-finite from the beginning.

• **Easy examples:** In (37a), the embedded subject needs case-licensing — and cannot receive it in the subject position of an infinitival clause because the indirect object intervenes (cf. *I assure you my sincerity*). In (37b), locality prevents the movement of Mary over you.

• The challenging example: In (37c), the moved embedded subject receives case in an intermediate landing site that it cannot receive in situ.  
  (Kayne 1984; Pesetsky 1991; Rezac 2013)

But the powers and non-powers of the putative higher case assigner would have to be extraordinarily peculiar:

(38) **Peculiarity 1:** The putative case assigner is insensitive to category distinctions that otherwise matter for case.
  a. **passive:** Mary, who I've been assured to be the best candidate...
  b. **adjective:** Mary, who I am positive to be the best candidate...
  c. **noun:** %Mary, who I have a hunch to be the best candidate...

(39) **Peculiarity 2:** The putative case assigner saves only nominals that have been extracted from the subject position of an infinitive. Extraction of a complement from a non-case position cannot be saved by this case assigner.
  a. **passive:** your honesty, which I've been assured *(of) ... 
  b. **adjective:** Mary, who I am positive *(about)...
  c. **noun:** Mary, who we're confident *(of)...

(Kayne 1984; Rezac 2013)
The Exfoliation alternative

- **Infinitivization is the issue**: If movement from an embedded clause to one of the positions in (22) does not happen, no infinitivization is possible. The clause will remain a full finite CP.

- **No puzzle for case theory**: No need to worry about the licensing of the moved subject in the wager/French or assure paradigms. The subject is always licensed in the embedded clause pre-Exfoliation.

In (40a-c), since movement of the embedded subject to an R2 position is impossible, the embedded clause should have remained finite, as in (41)

(40) **Not a case problem, but an untriggered Exfoliation problem**

a. *We wagered Mary to be the most likely winner.

b. *Je croyais cet homme être arrivé. 'I believed this man to have arrived.'

c. *I assure you Mary to be the best candidate.

(41) **Example (40a-c) without Exfoliation**

a. We wagered that Mary was the most likely winner.

b. Je croyais que cet homme est arrivé. 'I believed that this man arrived.'

c. I assure you that Mary is the best candidate.

- **Anti-locality (or equivalent) prevents prior movement to the local specifier of CP, whatever higher probe may be attracting the embedded subject (even an Á-probe).

Non-subject Á-movement from embedded clause

- **Question**: Why does infinitivization due to CP exfoliation not accompany object extraction? In (42), the embedded subject is licensed by finite T before Exfoliation — so why does extraction of the object not infinitivize the embedded clause?

(42) **Non-subject extraction does not feed exfoliation of CP**

*a*This book, which I assure you Sue to have read __.

- **Answer**: The wh-phrase originates within vP, and moves to its edge — from where Anti-Locality does not prevent it from raising to the specifier of CP. The structural description of Exfoliation is not met at any point in the derivation.

6. More derivational opacity arguments for infinitivization as a process: NOM objects and AAE effects in Icelandic

**NOM objects in non-finite clauses (repeated)**

(43) **Quirky subject, nominative object in finite clause**

a. Barninnu batnanda veikin.

the.child.DAT recovered.from.350 the.disease.NOM

'The child recovered from the disease.'

b. Barninnu bōtnaðu veikinar.

the.child.DAT recovered.from.3pl the.diseases.NOM

'The child recovered from the disease.'

(44) **Quirky subject, nominative object in an R2 infinitival complement**

Lækningar, telur barninnu (f barnaskap sínum) batnanda veikin.

the.doctor.NOM believes the.child.DAT (in foolishness his) recovered.from.350 the.disease.NOM

'The doctor, believes the child (in his, foolishness) to have recovered from the disease.'

**Life history of (44)**

While the embedded clause is a full finite CP...

- Finite T in the embedded clause assigns NOM and case licenses the nominative object — by whatever magic permits it to do so in simple clauses.

When the R2 probe on 'believe' finds the DAT subject of the embedded clause ...

- Exfoliation reduces the embedded clause to an infinitive.
- The embedded DAT raises to spec,VP (over the higher VP adverb, if present).

**Anaphor-Agreement Effect before Exfoliation**

(45) **Anaphor-Agreement Effect**

a. *Mary believes that herself gave a good talk.

b. *Jón segir að sig elski Mary.

John says that love subj 350 Mary

**Reasons to think the culprit really is agreement:**

- a NOM-marked reflexive anaphor should be acceptable in a language without subject agreement (as long as its antecedent is sufficiently local)
- any syntactic position that is agreed with, even a non-subject, should block the appearance of a reflexive in that position
- special strategies might be invoked cross-linguistically that suppress agreement — to permit a reflexive in otherwise agreeing positions (Woolford 1999, 258; Sundaresan 2016, 79; Yuan 2018)
• No surprise that when an otherwise licensed Icelandic reflexive bears quirky case and therefore fails to trigger φ-agreement, it is acceptable as a subject (since long-distance binding of a reflexive across a subjunctive clause boundary is generally permitted in Icelandic):

(46) No AAE effect for quirky subject (Icelandic)
Hún sagði að sér þetta vient um mig.
\(\text{she said that refl.dat was subj3sg fond of me}^{\prime}\)
(Maling 1984, 216 ex 8b; Woolford 1999, 261 ex 9a)

• No surprise that a NOM object, which is a target for agreement by finite T, may not be a reflexive in a finite clause:

(47) AAE effect for NOM object in finite clause (Icelandic)
*Marfi leiðist sig.
\(\text{Marli.dat find.boring.3sg refl.nom}\)
\(\text{Intended:} \text{Maria finds herself boring.}^{\prime}\)
(Everaert 1991; Woolford 1990)

• A big surprise (perhaps): that a reflexive is also excluded as the NOM object in an infinitival R2 clause, where there is no visible agreement morphology in the embedded clause:

(48) AAE effect for NOM object in non-finite clause
*Ég tel Marfi leiðast sig.
(\text{I believe Marli.dat find.boring.inf refl.nom})
\(\text{Intended:} \text{I consider Maria to find herself boring.}^{\prime}\)

• Not attributable to a failure of c-command by the DAT antecedent — since a DAT nominal may serve as the antecedent for a non-nom reflexive.
(zaenen et al. 1985, 456 ex 31; Taraldsen 1996, 200 ex 28)

Exfoliation resolution: The AAE arises from the pre-Exfoliation derivational period in which the embedded clause contained a T that agreed (or attempted to agree) with it.

A problem and a possible explanation

• The impossibility of an embedded NOM object reflexive in an R2 construction like (48) contrasts with the complete acceptability of a reflexive as the raised ACC subject in an R2 construction ...
• ... despite the fact that here too the reflexive occupied a position targeted by agreement pre-Exfoliation.

(49) No AAE effect for raised ACC subject in R2
a. She believes herself to be strong.
\(\text{She.nom believes refl.acc be.inf strong.acc}^{\prime}\) (Icelandic)

• Difference between the raised subject in (49) and its unraised counterpart in (48):
  o the embedded subject in (49) has received a new case (ACC) after moving into the higher VP; but
  o nothing comparable happens in (48).

• Absence of NOM→ACC case overwriting is at stake, not raising per se:
  o Icelandic R2 with unaccusative verbs (impossible in English) yields NOM on the raised subject.

(50) “Nominitive with infinitive” construction (Icelandic)
\(\text{Mér syndist Haraldur (i barnaskap minum) hafa gert þetta vel. me. Dat seemed Harold.nom (in foolishness my) have.inf done this well}^{\prime}\)
\(\text{Harold seemed to me (in my foolishness) to have done this well.}^{\prime}\)
(Thraínsson 1979, 426, ex 121)
  ... and the raised NOM subject shows an AAE effect.

(51) AAE effect in “Nominitive with infinitive” construction (Icelandic)
* Mé síndist síg hafa gert þetta vel.
\(\text{me.dat seemed refl.nom have.inf done this well}^{\prime}\)
\(\text{Harold seemed to me to have done this well.}^{\prime}\)

Why does NOM→ACC overwriting eliminate the AAE effect?

• Baker & Vinokurova (2010, 639) on Sakha: nominal licensing in Sakha takes place in one of two ways:
  (1) by agreement with an element such as T, or
  (2) by the assignment of dependent case (under local c-command by a distinct non-oblique nominal).
• Two features of their proposal
  o integration of dependent case into a view that also countenances agreement as a source of case;
  o the idea that dependent case has a licensing role and is not purely morphological (cf. also branan 2017 on Kikuyu).

• If Icelandic has essentially the same system as Sakha (and the clause is a locality domain for dependent case), then licensing by agreement with T should be the only licensing strategy available for the subject of a finite clause, or for a direct object locally c-commanded only by an oblique nominal within that clause.
• This suggests the following logic for generating the AAE effect:

(52) AAE revised
Agreement does not case-license a reflexive anaphor (perhaps because agreement fails).
• Consequences:
  o A reflexive for which T is the only possible source of licensing throughout the
derivation will violate the Case Filter.
  o If a reflexive moves to a position where it may be licensed by dependent case, it
can satisfy the Case Filter.

→ AAE effects are Case Filter effects.

7. More derivational opacity: vocabulary-insertion before Exfoliation?

• First and second person ([+Participant]) NOM objects are problematic in finite clauses
  with overt agreement (for many speakers). Note that 1PL is the worst of the imperfect
  examples:

(53) NOM objects in present- and past-tense indicative clauses (Icelandic)

<table>
<thead>
<tr>
<th>Present</th>
<th>Past</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. (?)Henni leiðist</td>
<td>g. (?)Henni leiðdist</td>
</tr>
<tr>
<td></td>
<td>ēg.</td>
</tr>
<tr>
<td></td>
<td>her.DAT find.boring,PST.ISG</td>
</tr>
<tr>
<td>Intended:</td>
<td>‘She finds me boring.’</td>
</tr>
<tr>
<td>b. (?)Henni leiðist</td>
<td>h. (?)Henni leiðdist</td>
</tr>
<tr>
<td></td>
<td>þú.</td>
</tr>
<tr>
<td></td>
<td>her.DAT find.boring,PST.2SG</td>
</tr>
<tr>
<td>Intended:</td>
<td>‘She finds you (sg.) boring.’</td>
</tr>
<tr>
<td>c. √ Henni leiðist</td>
<td>i. Henni leiðdist</td>
</tr>
<tr>
<td></td>
<td>hann.</td>
</tr>
<tr>
<td></td>
<td>her.DAT find.boring,PST.3SG</td>
</tr>
<tr>
<td>‘She finds him boring.’</td>
<td>‘She found him boring.’</td>
</tr>
<tr>
<td>d. *Henni leiðumst</td>
<td>j. *Henni leiðumst</td>
</tr>
<tr>
<td></td>
<td>við.</td>
</tr>
<tr>
<td></td>
<td>her.DAT find.boring,PST.1PL</td>
</tr>
<tr>
<td>Intended:</td>
<td>‘She finds us boring.’</td>
</tr>
<tr>
<td>e. ?Henni leiðist</td>
<td>k. ?Henni leiðdist</td>
</tr>
<tr>
<td></td>
<td>þóð.</td>
</tr>
<tr>
<td></td>
<td>her.DAT find.boring,PST.2PL</td>
</tr>
<tr>
<td>Intended:</td>
<td>‘She finds you (pl.) boring.’</td>
</tr>
<tr>
<td>f. √ Henni leiðast</td>
<td>l. √ Henni leiðdist</td>
</tr>
<tr>
<td></td>
<td>þeir.</td>
</tr>
<tr>
<td></td>
<td>her.DAT find.boring,PST.3PL</td>
</tr>
<tr>
<td>‘She finds them boring.’</td>
<td>‘She found them boring.’</td>
</tr>
</tbody>
</table>

• Same contrasts hold in non-finite R2 infinitives (but see cautionary note below):

(54) 1PL and 2PL NOM objects in an R2 infinitive (Icelandic)

<table>
<thead>
<tr>
<th>Present</th>
<th>Past</th>
</tr>
</thead>
<tbody>
<tr>
<td>Óg tel henni leiðast...</td>
<td>I believe her.DAT find.boring,INF...</td>
</tr>
<tr>
<td>‘I consider her to find boring...’</td>
<td></td>
</tr>
<tr>
<td>a. ?*...ēg.</td>
<td>d. *...við.</td>
</tr>
<tr>
<td>...1NOM.SG</td>
<td>...1NOM.SG</td>
</tr>
<tr>
<td>b. ?*þú.</td>
<td>e. ?*þóð.</td>
</tr>
<tr>
<td>...YOU.NOM.SG</td>
<td>...YOU.NOM.SG</td>
</tr>
<tr>
<td>c. √...hann.</td>
<td>f. √...þeir.</td>
</tr>
<tr>
<td>...he.NOM</td>
<td>...boys,they.NOM</td>
</tr>
</tbody>
</table>

• If the contrast between third-person and [+Participant] subjects in (53) is due to an
  agreement problem ...
  ...we must conclude that the same kind of agreement created the same problem in
  the infinitival embedded clauses of (54) — as predicted by an Exfoliation account.

• One might object as follows: It is somewhat commonplace to posit abstract φ-
  agreement on infinitival T even in lexical theories, so the discovery of in (53)/(54)
  parallelism is not necessarily an argument for the Exfoliation theory

But there is an interesting proposal about the reasons for the gradations in judgments
in in (53), due to Sigurðsson, summarized by Schütze (2003):

“In a detailed survey of agreement judgments, [...] Sigurðsson (1990-1991, 1996)
observed the following descriptive generalization: ‘Many speakers seem to accept [1st-
and 2nd-person] nominative objects in so far as they can be interpreted such that they
both do and do not control agreement.’ Thus, ([53a/g] and (53b/h)) are essentially fine
because all three singular forms of this verb [in both tenses] are syncretic; ([[(53d/j)]]
is completely out because the 1pl form sounds nothing like the 3sg form; [(53k)] is
marginally possible, according to Sigurðsson, because the 2pl verb form sounds very
similar to the 3sg form.” — and [(53e)] is even better because the 2pl past tense form is
fully syncretic with 3sg.” (Schütze 2003, 299)

• Schütze’s proposal:
  o φ-probe on T first finds and agrees (or attempts to agree) with the DAT
    argument ...
  o ...then probes further and agrees for a second time with the lower NOM
    argument (with some degree of marginality)... 
  o ...so long as the morphological consequence for the verb of finding DAT (i.e.
    3sg, the unmarked form) and the morphological result of agreement with
    NOM argument sound the same or very similar.

  • Story falls together with other instances of conflict resolution via syncretism
    (Pullum and Zwicky (1986); Citko (2005, 486-488; Asarina (2011, 188 ff.))

• Implication: Before Exfoliation, a clause is actually fully spelled out, including choice
  of exponents for finite verbal elements — with these choices later annihilated and
  replaced with others if Exfoliation occurs.

• Data credit and caution: Hóskuldur Thráinsson (reporting judgments of two others as well)
  and Halldór Armann Sigurðsson, p.c. The overall strength of their judgments of deviance
differed somewhat, but I believe the pattern presented here correctly represents their data fairly.

But: these data have not been post-checked with them or with other speakers. A fifth (younger
generation) speaker, Iris Edda Nouwenstein, prefers 3PL agreement with plural nominative
objects and reports the major contrast in (54) but not the subtle difference between 1PL and other
[+Participant] NOMs. So take these data as the fruits of an informal pilot experiment, awaiting
further confirmation.
8. English *for*-infinitives as R2 constructions

- *For* infinitives in their Modern English form look like a counterexample to the hypothesis that all infinitives derive from Exfoliation of full finite CPs.

(55) *for*-infinitives (English)
  a. Mary is eager [for Sue to talk as scheduled].
  b. [For the cat to be out of the bag already] would not be surprising.

- But as the analysis of *for* in traditional case-theoretic discussions made clear, *for* has properties reminiscent of R2 verbs.

Conjecture: *for* has big-*FOR* and little-*for* variants\(^2\), embeds a finite indicative CP, and triggers raising of the subject of its complement CP to spec,FORP (like R2 verbs), with concomitant Exfoliation:

(56) Exfoliation triggered by R2 probe on FOR

(57) Semantics of clause-introducing *for*
  a. [For it to rain] would be helpful. \(\text{irreals}\)
  b. [For it to rain] is always helpful. \(\text{generic}\)
  c. #[For it to rain] was helpful last night. \(\text{non-irreals/future, non-generic}\)

(58) Irreals-modifying relative clause must stack outside realis-modifying relative clause with *for* clause (English)
  a. I would have preferred for there to be ice-cream at the party, as Mary mistakenly reported, which you would have preferred too.
     (\(\checkmark\) with the first RC modifying "that there was ice-cream at the party")
  a’. I would have preferred for there to be ice-cream at the party, which you would have preferred too, as Mary mistakenly reported.
     (?! with the second RC modifying "that there was ice-cream at the party")
  b. John would be happy for the reports to be false, as you claim, which we all want.
     (\(\checkmark\) with the first RC modifying "that the reports are false")
  b’. John would be happy for the reports to be false, as we all want, which you claim.
     (?! with the second RC modifying "that the reports are false")

(59) Indicative core of *for*-clause supports anaphora (English)
  I am anxious for her to finish her dissertation, so I can report it to the registrar. i.e. ...so I can report [that she finished her dissertation] to the registrar.

Argument that the subject of a *for*-infinitive has raised from its clause

(60) Adverbials may not precede subject in *for*-infinitival clauses (English)
  a. Mary demanded [for (*sometimes) Bill to arrive on time].
  b. We would prefer [for (*most of the time) Mary to accept this solution].

... sometimes attributed to an adjacency condition

English subjunctive clauses: a variant of *for*-clauses?

(61) Adverbials may not precede subject in subjunctive clauses (English)
  a. Mary demanded [that (*sometimes) Bill arrive on time], like (189a) vs. Mary said that sometimes Bill arrives on time.
  b. We would prefer [that (*most of the time) Mary accept this solution], like (189b) vs. We know that most of the time Mary accepts this solution.

(62) Irreals-modifying relative clause must stack outside realis-modifying relative clause with subjunctive *that* (English)
  a. I would have preferred that there be ice-cream at the party, as Mary mistakenly reported, which you would have preferred too.
     (\(\checkmark\) with the first RC modifying "that there was ice-cream at the party")
  a’. I would have preferred that there be ice-cream at the party, which you would have preferred too, as Mary mistakenly reported.
     (?! with the second RC modifying "that there was ice-cream at the party")
  b. John demanded that the reports be falsified, just as you claim, which we all wanted.
     (\(\checkmark\) with the first RC modifying "that the reports were falsified")
  b’. John demanded that the reports be falsified, just as we all wanted, which you claim.
     (?! with the second RC modifying "that the reports were falsified")

\(^2\) Alternative (Esther Torrego, p.c.): "big-*FOR*" might be a flavor of T, with "little-*for*" as C.