

*The Anaphor Agreement Effect:
further evidence against binding-as-agreement*

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1. The Anaphor Agreement Effect (AAE)

1.1. Overview

- (1) ANAPHOR AGREEMENT EFFECT (Rizzi 1990:26)
Anaphors do not occur in syntactic positions construed with agreement.
- (2) * A voi interessate solo voi stessi. (Italian)
to you(DAT.PL) interest(2pl) only yourselves(NOM)
'You are interested only in yourselves.' [Rizzi 1990:34]

• **Problem:**

- (3) Vetja më dhimset. (Albanian)
self.NOM CL.1sg.DAT feel.sorry.for.3sg.PRES.NONACTIVE
'I feel sorry for myself.'
[Woolford 1999:271, citing Everaert 1991 and Hubbard 1985:91]

• **Notice:**

- ex. (3) involves a DAT-Experiencer verb, much like ex. (2);
- like in Italian, this means the NOM Theme controls agreement;
- but unlike in Italian, a verb form with 3sg morphology renders the occurrence of a NOM anaphor well-formed.

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• **Thus:¹**

- (4) ANAPHOR AGREEMENT EFFECT (Tucker 2011:8)
Anaphors do not occur in syntactic positions construed with agreement, *unless the agreement does not vary for φ -features.*
- ex. (3) is exempted from the effects of (1) —
 - because 'default agreement' does not vary for φ -features (cf. (4))

• **Notice:**

- there is now no meaningful sense in which agreement restricts the possible positions of an anaphor
 - sometimes (e.g. in Italian, or English) they cannot occur in positions that would otherwise trigger agreement (as per Rizzi 1990);
 - and sometimes (e.g. in Nez Perce, or Albanian) they can (as per Tucker 2011, Woolford 1999)
- SPOILER: I don't think anyone (myself included) has a theory of which language will fall under the first 'sometimes', and which under the second.

➤ The only constant, it seems, is the following:

- (5) ANAPHOR AGREEMENT EFFECT
* $H^0 \dots DP_{ANAPH}$, where \mathcal{R} is a nontrivial φ -agreement relation
- $\begin{array}{c} \uparrow \quad \uparrow \\ \mathcal{R} \end{array}$

- (6) A φ -agreement relation between α and β is nontrivial if there are at least two sets of feature-values, F and F' , such that α takes on one form, $\alpha(F)$, when β bears F ; and takes on another form, $\alpha(F')$, when β bears F' . (And $\alpha(F)$ and $\alpha(F')$ are both part of the normal φ -agreement paradigm of α .)

¹Woolford (1999) and Tucker (2011) discuss one more pattern related to the AAE, that of Nez Perce. In Nez Perce, verbs with reflexive objects take object-agreement markers from a dedicated anaphoric agreement paradigm, which is distinct from the paradigm of normal object agreement, but nevertheless still alternates based on the φ -features of the anaphor (or of its binder; there would be no way to tell). I follow Tucker (2011:7–8) in setting this example aside for the purpose of the Anaphoric Agreement Effect. Tucker himself suggests that this agreement morphology may ultimately be agreement with the antecedent, not with the anaphor, and that it therefore spells out a portmanteau of subject agreement with detransitivizing reflexive morphology. If such an analysis were to prove untenable, it would instead be possible to fold in Nez Perce with other genuine AAE-violating languages like Tamil; see §9.1 for further discussion.

⇒ for the purposes of this talk, I will treat (5) as the real AAE.



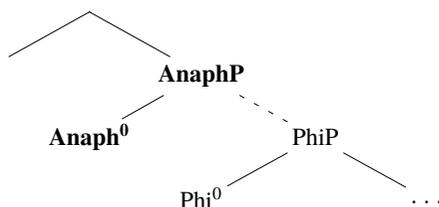
• In this talk, I will argue:

(i) the AAE, sometimes taken to support a reduction of binding to φ -agreement, actually provides evidence *against* such a reduction

(ii) the AAE arises due to φ -encapsulation —

◦ the φ -features borne by the anaphor are properly contained in a syntactically opaque structure

(7) THE φ -ENCAPSULATION HYPOTHESIS



◦ in other words, the structure that is transparently realized in a language like Georgian —

(8) [[t_fems] tav-s] vakeb (Georgian)
1sg.POSS head-DAT praise<1sgS,3sgO>
'I praise myself.' [Harris 1981:27]

— is at play even in languages where it is less transparently evident.

1.2. Agreement, not case

• Icelandic has a long-distance anaphor, *sig/sér/sín* (ACC/DAT/GEN)²

◦ I will gloss this element as “SIG” henceforth

• In (9), the embedded subjunctive verb agrees with the NOM subject (*þú* “you”), not with SIG

(9) Jón_i heldur [að þú hatir sig_i] (Icelandic)
John believes that you hate.SBJV.2sg SIG.ACC
'John_i believes that you hate him_i.' [Thránsson 2007:467]

⇒ accordingly, there is no violation in (9)

• Contrast this with (10):

◦ here, the embedded verb is a quirky-subject verb

– assigning DAT case to its subject (*mér* “me.DAT”)

– and NOM case to its object

(Marantz 1991, Yip et al. 1987, Zaenen et al. 1985)

◦ finite agreement tracks case, not grammatical function³

⇒ in such a clause, it is the NOM object, not the DAT subject, that would control agreement

(10) Sigga_i telur [að mér líki hún_i/*sig_i]
Sigga thinks that me.DAT likes.SBJV.3sg she.NOM/*SIG
'Sigga_i thinks that I like her_i.' [Maling 1984:217]

⇒ hence SIG cannot occur in the object position of the embedded clause in (10).

²It has been argued, by Thránsson (1979), Maling (1984), and others, that SIG is in fact *logophoric* in nature (cf. Clements 1975 and subsequent literature), and as such, its distribution is subject to discourse-oriented restrictions. While this is certainly an interesting facet of SIG's distribution, it is ultimately at right angles to our present concerns. That is because it turns out that there is no discourse configuration, however unorthodox, that allows SIG to occur in a position violating (5). The latter is clearly not a discourse-related fact, and it is this facet of SIG's distribution that is of interest here. This does illustrate, of course, that (5) should be taken as a necessary-but-not-sufficient condition on the distribution of anaphors—exactly as one would expect. See Maling (1984), Sells (1987), Thránsson (1991, 1992), among others, for further discussion.

³In Icelandic, and probably in most (if not all) other languages, too; see Bobaljik (2008).

NB: This is not a ban on SIG serving as an argument of a quirky-case verb.

- (11) Hún_i sagði [að sig_i vantaði peninga].
she.NOM said that SIG.ACC lacked.SBJV.3sg money
'She_i said that she_i lacked money.'
[Maling 1984:216]



- Because finite agreement in Icelandic tracks NOM case, the data in (9–11) *could* be characterized in terms of case (e.g. “no NOM anaphors”)
 - rather than in terms of φ -agreement
 - **However**, such a characterization fails to generalize (Woolford 1999:262ff.):
- (12) sense_i-ni(-wa) zibun_i-ga wakar-ani-i (Japanese)
teacher-DAT(-TOPIC) self-NOM understand-NEG-PRES
'The teacher_i does not understand themself_i.'
[Shibatani 1977:800, via Woolford 1999:263]
- a case-based characterization (e.g. “no NOM anaphors”) would capture the Icelandic facts in (9–11);
 - but it would make the wrong predictions for (12)
 - and for many other cases like it, cross-linguistically

1.3. Syntax, not morphology

- The AAE —
 - just based on the characterization in §1.1–§1.2, without further analysis
 - already has implications for the way we think about the syntax & morphology of φ -agreement cross-linguistically
 - Consider (12) once more, as well as (10), repeated here:
- (10) Sigga_i telur [að mér líki hún_i/*sig_i] (Icelandic)
Sigga thinks that me.DAT likes.SBJV.3sg she.NOM/*SIG
'Sigga_i thinks that I like her_i.'
[Maling 1984:217]

- To maintain an account of (10) without incorrectly ruling out (12) —
 - it is necessary for *at least one* of the following conditions to hold:
 - (i) Japanese, Korean, and all other languages like them do not have an abstract, morpho-phonologically unexpressed version of the agreement relation in (10)
 - (ii) the AAE is a morphological constraint, rather than a syntactic one
- To see why, suppose that both (i) and (ii) were false —
What would distinguish the NOM anaphor in (10) from its counterpart in (12)?
 - it cannot be the presence of overt agreement with the anaphor in (10), since syntax is modularly encapsulated from morpho-phonology
 - and thus the AAE, situated in syntax by hypothesis, could not ascertain whether a particular morphological term is or isn't overt;
 - and since Japanese is allowed to have a morpho-phonologically null (but syntactically extant) version of the agreement relation in (10) —
 - there is no explanation for why the anaphor in (12) is licit, while the one in (10) is not.

⇒ We've learned that [(i) ∨ (ii)] must be true;

- Now consider:
Is the idea that (ii) is true—i.e., that the AAE is morphological in nature—actually a tenable position?
- It is not. Here's why:
 - what the AAE prohibits is (nontrivial) agreement between a probe H⁰ and an anaphor DP_{ANAPH}
 - crucially, φ -agreement is **unbounded**: there is no upper bound on the amount of structure or linear distance that the relation can span⁴

⁴This is not to be confused with the (obviously false) claim that there is no structure that would block φ -agreement. Much like *wh*-movement is unbounded but is stopped by certain structures (syntactic islands), so too is φ -agreement stopped by certain structures (finite CP boundaries). None of this changes the fact that both relations are unbounded, in the sense that there is no limit on the number of phrases they can span.

- for a particularly vivid demonstration of this fact, I refer the reader to Keine (2017)
 - who shows that long-distance agreement in Hindi can span across an unbounded number of transitive verb phrases
 - and, moreover, that it is subject to exactly the same structural constraints as the licensing of *wh*-in-situ in Hindi is
 - and unbounded dependencies are the domain of syntax, not morphology⁵
 - to put this another way:
for the AAE to be “morphological” in nature, there would have to be no upper bound on the size of a “morphological domain”
 - a position that I take to be self-evidently indefensible
 - [(i) ∨ (ii)] must be true, and (ii) is false
- ⇒ (i) must be true.
- In other words:
- languages like Japanese lack any finite φ -agreement relation whatsoever
 - in particular, they do not have a morpho-phonologically unexpressed counterpart of the φ -agreement relation that one finds in, say, Icelandic
- This is a welcome result:
 - it converges with independent arguments (in favor of the same conclusion) from the distribution and nature of Person Case Constraint (PCC) effects
 - see Preminger 2019 (as well as one of my talks here in Tromsø!)
 - where I have termed this the *no-null-agreement* generalization

⁵While there have been recent proposals that allow morphology to traffic in objects like ‘chains’, ‘copies’, ‘traces’, etc. (cf. Bobaljik 2008, Marantz 1991), modular separation should entail *some* difference in the sets of primitives available to each module. That is not to say that the two sets should be disjoint: there must be some overlap in the primitives of syntax and morphology, otherwise the output of one would be wholly illegible to the other. Heads and their features seem like good candidates to fill this role of “shared vocabulary” between syntax and morphology. But if there was ever a candidate for a primitive that is syntactic but not morphological, it would be the ‘chains’/‘copies’/etc. formed by syntactic movement. So either there is literally no difference between syntax and morphology (in which case (ii) is definitionally false), or else there is, and (ii) is false for the reasons outlined in the text.

2. Reductionist theories of binding

- Recent years have seen a proliferation of proposals that subscribe to what I will call a *reductionist* view of binding:
- (13) THE REDUCTIONIST POSITION
- α and β can share a binding index **only if** α and β have entered into syntactic agreement in φ -features
- where, for the purposes of this definition, entering into φ -agreement is subject to transitive closure
 - i.e., if α agrees with γ , and γ agrees with β , then α and β count as having entered into agreement with one another for the purposes of this definition
- For some of these, reductionism only applies to *anaphoric* binding —
 - e.g. Heinat 2008, Reuland 2011, Rooryck & Vanden Wyngaerd 2011;
 - Whereas for others, it applies to *any* kind of binding —
 - e.g. Kratzer 2009, Wurmbrand 2017; see also the discussion in Pollard & Sag 1994
- Now, there is plenty of evidence unrelated to the AAE that reductionism is off track
- (i) **directionality**
- φ -agreement transmits values *upward* in the structure
 - from a c-commanded goal to a c-commanding probe
 see Keine & Dash (2018), Polinsky & Preminger (to appear), Preminger (2013) and Preminger & Polinsky (2015), *a.o.*⁶
 - binding, on the other hand, transmits values *downward* in the structure
 - from a c-commanded goal to a c-commanding probe

⁶See also Bjorkman & Zeijlstra (2019), who, by making explicit the vast and problematic array of assumptions that would be required to support a theory in which φ -feature values were transmitted downward in the structure, inadvertently provide a fairly strong argument against such a theory. For example, Bjorkman & Zeijlstra’s theory must assume that all φ -agreement includes a *checking* component alongside *valuation*—an assumption that is known to be false (Preminger 2011a, 2014).

⇒ the idea that binding requires φ -agreement is antithetical to what we know from actual φ -agreement⁷

(ii) the no-null-agreement generalization

- recall that the AAE itself implies that morpho-phonologically covert agreement is banned (§1.3) —
 - a result that enjoys independent support from the PCC (Preminger 2019)
- but it's a truism that anaphoric binding exists even in languages that lack overt φ -agreement (e.g. Japanese)
 - which, by hypothesis, lack syntactic φ -agreement as well
- Japanese, after all, does have anaphors

⇒ the idea that binding requires φ -agreement is again antithetical to what we know from actual φ -agreement⁸

(iii) φ -feature-matching is neither necessary nor sufficient for coreference

(14) My university thinks that yours truly should travel less.

[adapted from Podobryaev 2014]

(15) <pointing to different individuals in succession>
You should leave, but you should stay here.

⇒ it seems incongruous that φ -agreement would be inexorably implicated in binding.



- In the remainder of this talk, I will present an argument from the AAE against reductionism;
- Followed by a non-reductionist account of the AAE.

⁷Not every reductionist approach runs afoul of this directionality consideration. The aforementioned work by Reuland (2011), for example, does not—as it makes use of covert movement to ensure that all agreement relations that are well-behaved from a directionality perspective (i.e., relations where the recipient of values c-commands the supplier of values).

⁸Sandhya Sundaesan (p.c.) points out that it is technically possible to maintain the ban on morpho-phonologically null finite φ -agreement, while assuming that φ -agreement between a DP and another DP (*viz.* binding) is not subject to the same ban. While I agree that this is technically possible, it seems ad hoc, and in any event, it decreases the amount of ‘reduction’ that reductionist theories can actually claim to have achieved, thus lessening their appeal in the first place.

3. Step 1: φ -matching \nRightarrow φ -agreement

- One of the arguments frequently proffered in support of reductionist theories of binding:
 - *matching in φ -features between binder and bindee*
- **In actuality**, however, φ -feature-matching provides no support whatsoever for an involvement of φ -agreement in binding
- Specifically, φ -matching is enforced even in scenarios where syntactic φ -agreement could not possibly be involved
 - Donkey Anaphora; cross-utterance anaphora; and even linguistically-unantecedented deixis
- And this is so even when it comes to those φ -features which are not interpreted
 - e.g. grammatical gender on inanimates
- Consider:

(16) No linguist who has purple pants looks silly in them/*it.

(17) a. kol exad [e-yeʃ l-o maxberet [e-ya-sim
every one that-EXIST DAT-3sgM notebook<F> that-3sgM.FUT-put
ot-a/*ot-o ba-tik (Hebrew)
ACC-3sgF/*ACC-3sgM in.the-case

‘Everyone who has a notebook<F>, put it.F/*it.M in your bag ’

b. kol exad [e-yeʃ l-o max[evon [e-ya-sim
every one that-EXIST DAT-3sgM calculator<M> that-3sgM.FUT-put
ot-o/*ot-a ba-tik
ACC-3sgM/*ACC-3sgF in.the-case

‘Everyone who has a calculator<M>, put it.M/*it.F in your bag ’

- these are cases of Donkey Anaphora —
 - on the intended reading, the underlined expressions covary
- this, despite the absence of c-command (in either direction) between the covarying expressions;
- as well as the fact that the antecedent is buried inside a Complex NP Island (of the relative-clause variety), *inside* a Subject Island

- Clearly, a syntax that can relate two expressions in the absence of c-command, *and* in a manner that disregards islands, is hopelessly unrestrictive
 - it is really no syntax at all
- ⇒ Cases like (16–17) are a clear indication that even φ -features that are not interpreted, such as the grammatical gender features of inanimates, can be transmitted by a non-syntactic mechanism
- Let us refer to this mechanism—whatever it may be—as *NSM*
- There are candidates in the literature for what this mechanism might be:
 - for Elbourne (2013), pronouns are (hidden) definite descriptions
 - and so the matching requirements evidenced in (16–17) dissolve into whichever pragmatic forces favor coherence between a definite description and the expression(s) used to introduce the described entity earlier in the discourse
 - for Merchant (2014), pronouns like these are the residue of NP ellipsis
 - and so the matching requirements evidenced in (16–17) dissolve into whatever enforces identity of form between ellipses and their antecedents (cf. **John is no longer a bachelor, and Bill did <get married> too*)
 - but it doesn't really matter for me what *NSM* is;
 - its modular affiliation is clearly not syntax, and that is the only point here.
- Donkey Anaphora is not the only evidence for the existence of *NSM*
- Consider cases of cross-utterance anaphora / linguistically-unantecedented deixis:

(18) A: Where are the scissors?

B: They are right here.

- these exhibit φ -matching across different utterances, across different speakers⁹

⁹It is possible, of course, that the actual relation of interest holds not between *they* in Speaker B's utterance and *the scissors* in Speaker A's utterance, but between *they* and some mental representation of (parts of) speaker A's utterance that speaker B has constructed. But then we must ask what mechanism ensures that the mental representation that speaker B builds maintains the same φ -features used in speaker A's original utterance (as opposed to, say, speaker B building a representation that replaces *scissors* with *object*). The answer to that question cannot be 'syntax', and that establishes once again the need for a non-syntactic mechanism (*NSM*) of one kind or another that is involved in the relevant mediation.

- As before, the same holds of grammatical gender on inanimates:

(19) <pointing to a pair of saloon-style doors>

ir-a-kingu-ye

(Kinyarwanda)

4SUBJ-PAST-OPEN-PRFV

'They are open.' ('They have been opened.')

- crucially, the subj.-agreement marker in (19) is *ir-* because (plural) "doors" are a member of noun-class 4
 - rather than 2, 6, 8, and so forth

➤ These data illustrate quite vividly: **there is absolutely no argument to be had from overt φ -matching to an involvement of syntactic φ -agreement**



- Before concluding this section, it is worth pausing to entertain a putative swing of the pendulum all the way in the other direction —
 - namely, the possibility of *NSM* subsuming all of what syntactic φ -agreement was posited for
- Dowty & Jacobson (1988), discussing a related set of facts, hint (at the very least) at this possibility¹⁰
- While one operation is certainly better than two, there is good evidence that φ -agreement proper —
 - that is, φ -feature agreement between a verbal head and the verb's argument(s)
 — must be syntactically underpinned.
- Consider (20) (' \gg ' represents c-command, and H is some functional head):

(20) H \gg DP₁ \gg DP₂

- as discussed extensively (Abels 2012, Béjar & Rezac 2009, Boeckx & Jeong 2004, Nevins 2007, Preminger 2014, Rizzi 2001, Starke 2001, *a.o.*) —
 - H cannot enter into φ -agreement with DP₂ across DP₁ in this case¹¹

¹⁰For Dowty & Jacobson, *NSM* would reside in the semantic-pragmatic component, but that is not crucial for our current discussion.

¹¹This phenomenon of intervention in φ -agreement is not to be confused with the phenomenon of dative intervention in *A-movement*, which Bruening (2014) and, more recently, Branan (2018), have challenged the very existence of. The discussion here concerns cases where DP₂ is not a candidate to

- Importantly, such intervention in syntactic φ -agreement is systematically ameliorated by A-moving the intervener
 - see Anagnostopoulou (2003) and Holmberg & Hrósarsdóttir (2003), *a.o.*

(21)  (Icelandic)
 það finnst/*finnast [einhverjum stúdent] tölvurnar ljótar.
 EXPL find.SG/*find.PL some student.DAT computers.the.NOM ugly
 ‘Some student finds the computers ugly.’

(22) 
 [Einhverjum stúdent]₁ finnast *t*₁ tölvurnar ljótar
 some student.DAT find.PL computers.the.NOM ugly
 ‘Some student finds the computers ugly.’
 [Holmberg & Hrósarsdóttir 2003:999–1000]

- Binding, on the other hand, behaves differently:¹²

- (23) a. The children₁ seem to her_j/*_i to have *t*₁ amused Mary_i.
 b. * The children₁ seem to me to have *t*₁ amused myself.
 c. The children₁ seem to me to have *t*₁ amused each other.
- we know from (23a) that the *to*-Experiencer of *seem* can bind into the embedded infinitive
 - at least when locality is not at issue (as is the case with Condition C)
- ⇒ what, then, is the reason for the failure of reflexive binding in (23b)?
- if it is because of the intervening trace of *the children*, this shows that A-traces count for binding
 - contra the behavior of φ -agreement (21–22)
 - if, on the other hand, it is because the embedded infinitive in (23) constitutes its own binding domain —
 - then we have to posit a local binder within this embedded domain in (23c)
 - ⇒ showing again that A-traces must count for binding
 - again, contra the behavior of φ -agreement (21–22)

A-move, regardless of whether DP₁ is there or not, and only *agreement* between H and DP₂ is at stake (e.g. in Basque or Icelandic). Bruening and Branagan are mum on such cases.

¹²Thanks to an anonymous reviewer for helping me sharpen this argument.

- φ -agreement is sensitive to the case of its operands
 - in fact, it is very common for a DP to be inaccessible to φ -agreement unless it is a NOM or ABS DP (Bobaljik 2008, *a.m.o.*)
- Binding, on the other hand, does not care about case
 - e.g. the ability of DAT subjects to bind subj.-oriented anaphors in Icelandic is one of the most striking pieces of evidence that they are indeed subjects
 - see Zaenen et al. (1985), and related literature
- And perhaps most importantly, syntactic φ -agreement can never do anything like (16–17) (the Donkey-Anaphora cases)
 - verbs—or more accurately, the functional heads that verbs typically occur with—can agree with DPs that are not their arguments (see Artiagoitia 2001, Rezac et al. 2014, among many others);
 - they can agree with DPs in other (lower) clauses (see Polinsky 2003, Preminger 2011b, among many others);
 - but they cannot blatantly ignore the contours of syntactic structure (c-command, islands, etc.) in the manner shown in (16–17).

⇒ Overall: a Dowty & Jacobson-inspired swing in the other direction —
 (whereby even φ -agreement would be handled by *NSM*)
 — does not accord with the facts.

4. Step 2: Evidence for φ -encapsulation (Middleton 2018)

- Middleton (2018): survey of 86 languages, from 13 language families
 - looking specifically at the forms that each language uses to express the following 4 meanings (labels are Middleton's)

- (24) a. “ANAPHOR”
Diana $\lambda x(x$ thinks that only Charles $\lambda y(y$ loves \boxed{y}))
- b. “DIAPHOR”
only Diana $\lambda x(x$ thinks that Charles $\lambda y(y$ loves \boxed{x}))
- c. “EXOPHOR”
only Diana $\lambda x(x$ thinks that Charles $\lambda y(y$ loves \boxed{z})), where $z =$ Diana
- d. “PRONOUN”
only Diana $\lambda x(x$ thinks that Charles $\lambda y(y$ loves \boxed{z})), where $z \neq$ Diana

➤ KEY FINDING: a ban on discontinuous syncretism

(25) English: **ABBB**

- a. Diana thinks that only Charles loves HIMSELF.
~ Diana $\lambda x(x$ thinks that only Charles $\lambda y(y$ loves \boxed{y}))
- b. Diana thinks that only Charles loves HER.
~ only Diana $\lambda x(x$ thinks that Charles $\lambda y(y$ loves \boxed{x}))
~ only Diana $\lambda x(x$ thinks that Charles $\lambda y(y$ loves \boxed{z})), where $z =$ Diana
~ only Diana $\lambda x(x$ thinks that Charles $\lambda y(y$ loves \boxed{z})), where $z \neq$ Diana

(26) Icelandic: **ABCC** (also: Malayalam, some dialects of Mandarin)

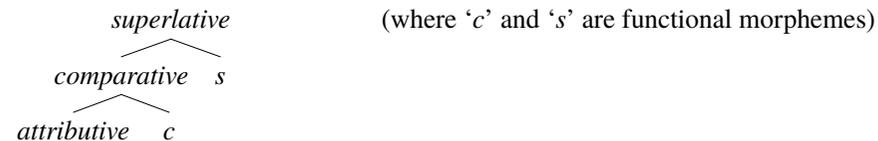
- a. Dána telur að aðeins Karl elski sjálfan sig
Diana believes that only Charles loves SJALFAN SIG
~ Diana $\lambda x(x$ thinks that only Charles $\lambda y(y$ loves \boxed{y}))
- b. Aðeins Dána telur að Karl elski sig
only Diana believes that Charles loves SIG
~ only Diana $\lambda x(x$ thinks that Charles $\lambda y(y$ loves \boxed{x}))
- c. Aðeins Dána telur að Karl elski hana
only Diana believes that Charles loves HANA
~ only Diana $\lambda x(x$ thinks that Charles $\lambda y(y$ loves \boxed{z})), where $z =$ Diana
~ only Diana $\lambda x(x$ thinks that Charles $\lambda y(y$ loves \boxed{z})), where $z \neq$ Diana

[Jane Middleton, p.c.]

(27) unattested: ***ABBA**, ***AABA**, ***ABCA**, ***ABCB**, ***ABAC**, etc.

- Bobaljik (2012), based on a similar ban found in attributive-comparative-superlative adjectival paradigms (see also Caha 2009, 2013):

(28) ADJECTIVAL CONTAINMENT HYPOTHESIS



- if the comparative is created by affixing the functional morpheme c to the attributive;
 - and the superlative properly contains the comparative;
- ⇒ then c will be present in the superlative, as well.

- if c is a trigger for contextual allomorphy of the attributive stem, that allomorphy will also be triggered in the superlative
- since the trigger, c , is present in the latter, as well
 - this would result in an **ABB** pattern
 - or, s could itself be an allomorphy trigger —
 - in which case it would give rise to a third form for the superlative, i.e., an **ABC** pattern
 - on these assumptions, the only way to create an **ABA** pattern is as a particular subcase of **ABC**
 - in which **C** is accidentally homophonous with **A** (but both remain distinct from **B**)
- Bobaljik stipulates that there is a weak type of *anti-homophony* at play:
- one that does not ban accidental homophony outright —
 - that would obviously be too strong
 - but which bans a context-sensitive allomorph of a given morpheme that’s homophonous with the ‘elsewhere’ allomorph:

(29) ANTI-HOMOPHONY: Bobaljik 2012 version

A context-sensitive allomorph of μ cannot be homophonous with the default exponent of μ . [Bobaljik 2012:35]

- in the pathological derivation of **ABA** as a subcase of **ABC**:
 - the shape of the morpheme corresponding to *attributive* in (28) has to be homophonous with the *s*-conditioned allomorph of that same morpheme
 - in violation of (29)

➤ As noted by Caha (2017), however:

- a ban on discontinuous syncretism is not an unambiguous indicator of containment (see also Bobaljik & Sauerland 2018)
 - Focusing, for simplicity, on three-cell paradigms —
 - where the ban on discontinuous syncretism amounts to a ***ABA** ban
- the same ban could arise as follows:

(30)

EXPONENT	FEATURAL MAKE-UP
α	[<i>f</i>]
β	[<i>f</i> <i>g</i>]
γ	[<i>g</i>]

- if β in (30) is different from both α and γ —
 - the only way for α and γ to be identical is:
 - to have accidentally-homophonous spellouts for *f* and for *g* in the absence of the other feature

⇒ coupled with a slightly different version of anti-homophony, as in (31) —

(31) ANTI-HOMOPHONY: featural-overlap version
A single morpheme μ cannot have two form-identical allomorphs that are triggered by disjoint featural contexts.

— the featural makeup in (30) will yield a ***ABA** ban.

- ◦ for Bobaljik, who proposes containment for attributive-comparative-superlative morphology —
 - the evidence comes from languages like Persian:

(32) Persian: TRANSPARENT CONTAINMENT

<i>bozorg</i>	“big”
<i>bozorg-tar</i>	“bigger”
<i>bozorg-tar-in</i>	“biggest”

- for Caha, who proposes featural overlap for dative-allative-locative morphology —
 - the evidence comes from languages like Tigrinya:

(33) Tigrinya: TRANSPARENT FEATURAL OVERLAP

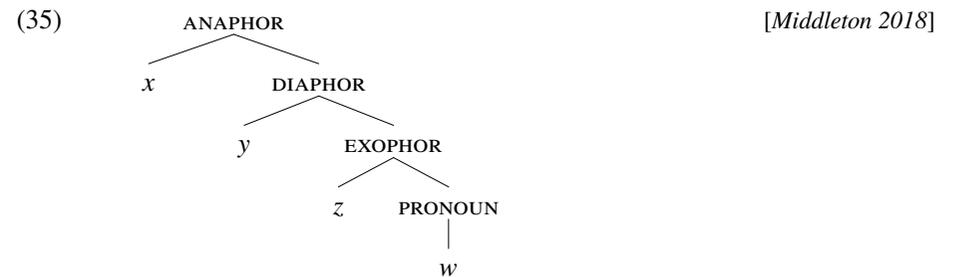
CATEGORY	EXPONENT
DATIVE	ne
ALLATIVE	ne + ab
LOCATIVE	ab

- Returning to Middleton’s (2018) investigation —
 - she notes the following pattern from Peranakan Javanese of Semarang (henceforth, PJS):

(34)

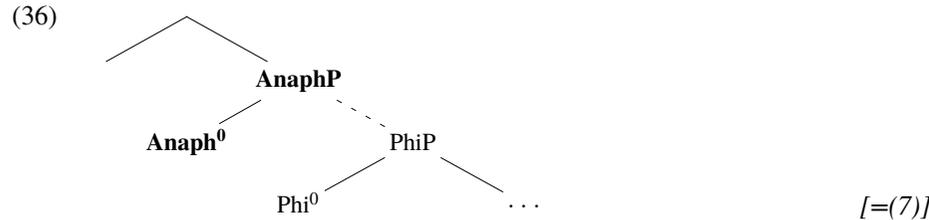
ANAPHOR	<i>awake dheen dhewe</i>	(PJS)
DIAPHOR/EXOPHOR	<i>awake dheen</i>	
PRONOUN	<i>dheen</i>	[Cole et al. 2007]

- As she discusses in detail:
 - this pattern disambiguates between the Bobaljik- and Caha-style explanations—for *this empirical domain*—in favor of the former
 - i.e., containment (35)



- Two things about (35):
 - first, it is necessarily the case that (35) represents a *universal*, cross-linguistically invariant structure for the expressions in question

- if we relax this assumption:
 - the explanation for why there is not a single example of discontinuous syncretism in Middleton’s (fairly vast) survey is lost
- second, if all we are interested in is the locus of φ -features relative to the locus of anaphoricity —
 - then (35) reduces to (36):



- that’s because the φ -bearing layer of (35) can be no higher than PRONOUN —
 - given that pronouns can bear the full range of available φ -features
- and the anaphoricity layer obviously corresponds to Middleton’s DIAPHOR and ANAPHOR layers in (35)
- ⇒ **(36) is the partial structure of (35) that’s relevant to the relation between φ -features and anaphoricity**

- In other words, what we have seen in this section is that φ -features are *properly contained* within the structural layer that turns an expression into an anaphor
 - I refer to this as the **φ -encapsulation hypothesis**.

5. The challenge to reductionism from the AAE

- Recall the reductionist position, repeated below:

(37) THE REDUCTIONIST POSITION
 α and β can share a binding index **only if** α and β have entered into syntactic agreement in φ -features [= (13)]

- where, for the purposes of this definition, entering into φ -agreement is subject to transitive closure
 - i.e., if α agrees with γ , and γ agrees with β , then α and β count as having entered into agreement with one another for the purposes of this definition

➤ Taken at face value, (37) predicts the systematic absence of anything like the AAE

- That is because:

- anaphors are, by definition, bound;
- and by (37), binding entails φ -agreement;
- and an anaphor is, by definition, a target with valued φ -features¹³

⇒ successful, nontrivial agreement with anaphors should be the natural state of affairs —

- in direct opposition to (38):

(38) ANAPHOR AGREEMENT EFFECT

* $H^0 \dots DP_{ANAPH}$, where \mathcal{R} is a nontrivial φ -agreement relation [= (5)]

➤ Two approaches suggest themselves in response to this apparent paradox, and I will discuss them each in turn

- an approach based on derivational timing (§6)
- an approach based on structural encapsulation (§7)

¹³A possible exception involves cases where the binder of an anaphor is another anaphor, as in (i):

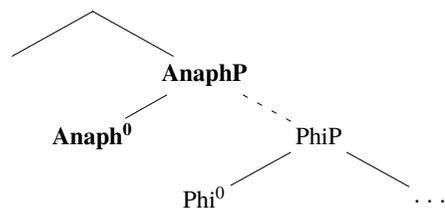
(i) Mary_i expected herself_i to outdo herself_i.

Nevertheless, even in such cases, this daisy-chain of bound-and-binding anaphors must ultimately resolve in a non-anaphoric antecedent if it is to be well-formed. And since (37) is closed under transitivity, all the anaphors in this scenario will ultimately have entered into φ -agreement with the non-anaphoric antecedent, by definition (see Sundaresan 2018).

- But recall the results of §4:

(41) THE φ -ENCAPSULATION HYPOTHESIS

[=(36)]



- what Basque (and Georgian) shows *overtly* —
 - a pronominal, φ -bearing layer, properly contained in a separate structural layer (in this case, the layer headed by the body-part noun) that renders the expression anaphoric
- is precisely what’s going on, albeit in a way that is morphologically less transparent, even in a language like, e.g., Albanian:

(42) Vetja më dhimset.
self.NOM CL.1sg.DAT feel.sorry.for.3sg.PRES.NONACTIVE
‘I feel sorry for myself.’

[=(3)]

➤ This has to be so, otherwise we lose the explanation for the universality of the no-discontinuous-syncretism result (see §4)

- Let me be perfectly clear about this: given Middleton’s results —
 - an expression like the Albanian *vetja* necessarily includes a pronominal layer, properly contained in an anaphoric layer
 - **just like reflexives in Basque(/Georgian) do**

⇒ Reflexives like those in Basque are exactly what we should be looking at —

- since they show transparently that which is going on in all reflexives!

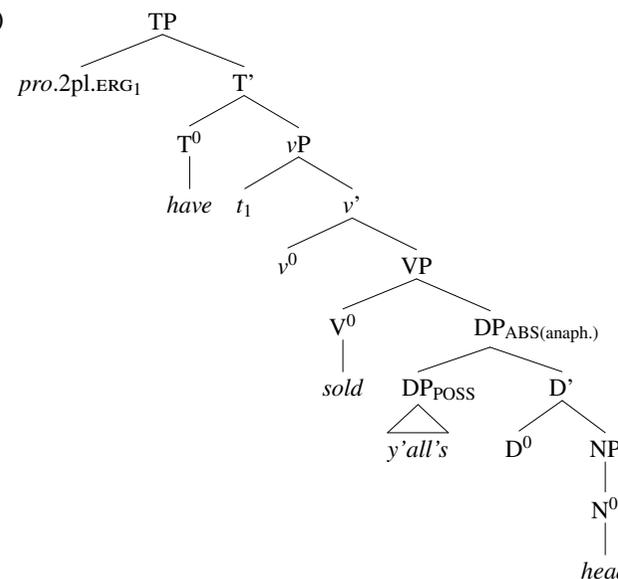
6.1.4. Anaphoric binding in Basque transitives

- As argued in detail by Arregi & Nevins (2012), the head responsible for φ -agreement with absolutive DPs in Basque is T^0
 - rather than, say, v^0

⇒ Consider, now, what this entails for a timing-based approach to the AAE:

(Basque is head-final, of course; diagram is head-initial for purely graphical reasons)

(43)



‘Y’all have given yourselves away’
(lit.: ‘Y’all have sold y’all’s head.’)

[=(39)]

- By hypothesis, given the timing-based approach, the φ -bearing portion of the Basque reflexive —
 - the possessive pronoun, *zeuen/zuen* (“2pl(strong/weak).poss” (= “y’all’s”))
- will receive its φ -features once it is bound by its antecedent (in this case, *pro.2pl.ERG*)

- And note: the trace in [Spec,vP] is an A-trace —

- and as illustrated in (44a–c) (repeated from earlier), A-traces can & do bind

(44) a. The children_i seem to her_{j/*i} to have *t*₁ amused Mary_i. [=(23a–c)]
 b. * The children_i seem to me to have *t*₁ amused myself.
 c. The children_i seem to me to have *t*₁ amused each other.

- ⇒ The φ -bearing subpart of the reflexive will acquire its φ -features before T^0 probes for the φ -features of the ABS anaphor
- This, in turn, means that a timing-based account of the AAE won't work in Basque
- or for any other language where T^0 agrees with the internal argument in a transitive clause¹⁵

6.2. Further Issues

(i) PHASES:

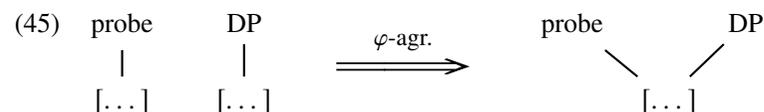
Can an approach that makes use of phases (and/or cyclic spellout) salvage the timing-based account of the AAE in Basque?

- The answer, I argue, is “no”:
 - if φ -agreement between α and β is a necessary condition for binding of β by α (=the reductionist position) —
 - then there can be no relevant phase boundary in between the subject and object in (43)
 - since the subject is able to bind the object (and, by hypothesis, agree with it)

(ii) FEATURE-SHARING:

There is arguably another problem, unrelated to anything discussed in this subsection so far, with the timing-based approach.

- The problem is that syntactic φ -agreement does not “check features” (see Preminger 2011a, 2014);
- Nor does it “copy” feature-values from one place to another;
- Instead, it creates feature-sharing structures
(Andrews 1971, Frampton & Gutmann 2000, 2006, Gazdar et al. 1985, Pesetsky & Torrego 2007, Pollard & Sag 1994, Preminger 2017, *a.o.*)



- The result of φ -agreement between a direct-object anaphor and whichever φ -probe agreed with it would be a feature-sharing structure like (45)
 - Once binding did occur —
 - and, by the reductionist hypothesis, the features of the direct-object anaphor were valued
 - the resulting valuation would affect the anaphor and the probe equally
- ⇒ Meaning we would see full, nontrivial agreement with the antecedent
- contrary to the AAE facts.
 - And this would be so *even if we were looking at a language where the relevant agreement probe was v^0 , rather than T^0*
 - e.g. “ABS=DEF”/“LOW-ABS” languages (Coon et al. 2014, Legate 2008)
 - That is because, due to the nature of feature-sharing, the relative order of φ -probing and binding-cum- φ -agreement does not matter.
- Crucially, however: even if we were to reject feature-sharing as a syntactic mechanism —
- it would not affect the argument against timing-based approaches from languages where the probe that targets the internal argument is T^0 (see §6.1.4)

6.3. Summary

- §6.1–§6.2:
A timing-based approach to reconciling the AAE with reductionism fails.

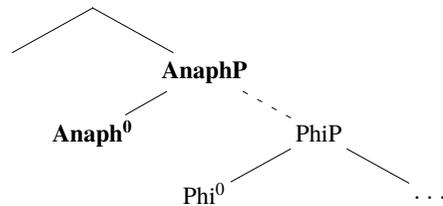
¹⁵A significant subset of ergative languages fit this description. These are the “HIGH-ABS” language in Coon et al.’s (2014) parlance, or the “ABS=NOM” ones in Legate’s (2008)—languages where T^0 is the functional head that enters into a relationship with the absolutive argument. Interestingly, Basque itself does not fit Legate’s (2008) case-theoretic diagnostics (which Coon et al. 2014 adopt) for being an “ABS=NOM”/“HIGH-ABS” language. Nevertheless, it is quite clear that the locus of absolutive agreement in Basque is T^0 (see Arregi & Nevins 2012 for extensive evidence of this).

7. An encapsulation-based approach to the AAE

- Upshot of §4:

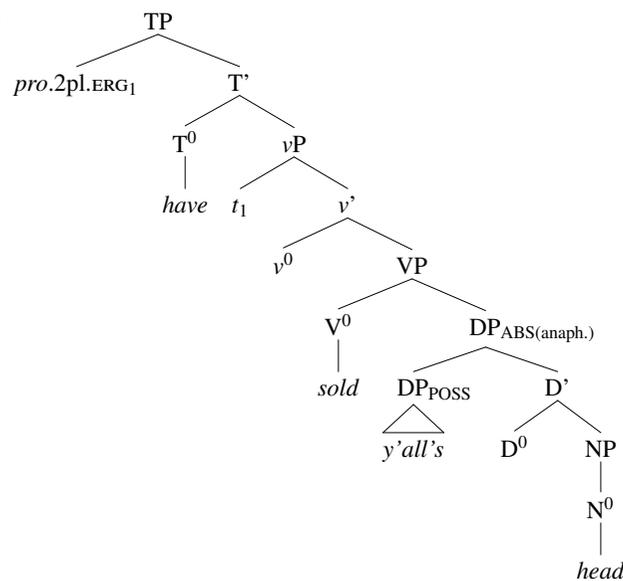
(46) THE φ -ENCAPSULATION HYPOTHESIS

[=(7, 36, 41)]



- Upshot of §6.1:

(47)



'Y'all have given yourselves away'
(lit.: 'Y'all have sold y'all's head.')

[=(39)]

- Suppose the AAE arises because φ -agreement comes upon a structural layer —
 - AnaphP in (46) (instantiated by $DP_{ABS(anaph.)}$ in (47))
 - that prevents access to the feature-values hosted on the φ -bearing portion of the reflexive
 - PhiP in (46) (instantiated by DP_{POSS} in (47))
 - That such a layer exists does not need to be stipulated; it follows from Middleton's results, surveyed in §4
 - All we're adding here is the assumption that this universally-present layer has the relevant properties to halt φ -probing
 - be it because it is phasal;
 - or because it bears its own set of valued φ -features, distinct from the ones that covary with the antecedent;
 - or both.
- This clearly suffices to derive the AAE:
- φ -matching between the PhiP layer (DP_{POSS} in (47)) and the antecedent is enforced by *NSM* (see §3)
 - but a φ -probe located properly outside the AnaphP layer ($DP_{ABS(anaph.)}$ in (47)) will run into this opaque layer
 - eliminating the possibility of nontrivial φ -agreement
 - and yielding the AAE (repeated below)

(48) ANAPHOR AGREEMENT EFFECT

* $H^0 \dots DP_{ANAPH}$, where \mathcal{R} is a nontrivial φ -agreement relation

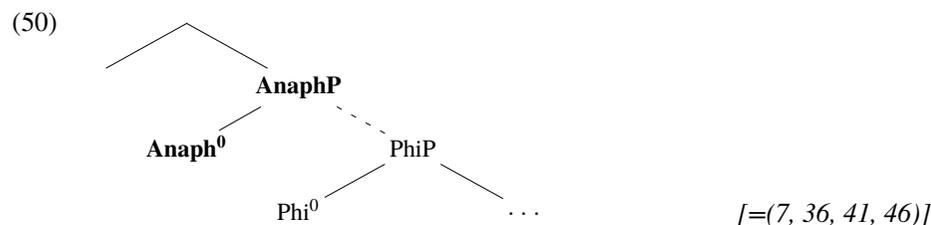
[=(5, 38)]

8. Encapsulation and reductionism

8.1. A false prediction

- The reductionist position, one more time:
- (49) THE REDUCTIONIST POSITION
 α and β can share a binding index **only if** α and β have entered into syntactic agreement in φ -features [=(13, 37)]
- where, for the purposes of this definition, entering into φ -agreement is subject to transitive closure
 - i.e., if α agrees with γ , and γ agrees with β , then α and β count as having entered into agreement with one another for the purposes of this definition

⇒ That means that in a structure like (50) —



— it is necessarily PhiP that is bound by the antecedent (!)

- This yields a testable prediction
 - Because AnaphP and PhiP are distinct structural layers (§4), and PhiP is the one bound by the antecedent:¹⁶
- (51) REDUCTIONIST PREDICTION:
the outermost layer of a reflexive anaphor should behave as if it is *not* the bearer of the relevant binding index

¹⁶It is logically possible to assume that the binding index percolates from PhiP to AnaphP. But note that in order to capture the AAE, it is necessary to assume that the valued φ -features on PhiP do not similarly percolate (see §6–§7. But if we assume that φ -features and binding indices diverge in this manner, we have in fact already abandoned the reductionist position (which holds that the two travel in concert).

- In light of this, consider (52a–b):
- (52) a. John_i expects Mary to outdo him_{i/k}.
b. John_i expects himself_i to outdo him_{k/*i}. [Norvin Richards, p.c.]
- notice first that (52a) does not give rise to a disjoint-reference effect between *John* and the pronoun *him*
 - meaning *John* is too far away from the pronoun, structurally speaking, for the two to enter into a local binding relation
- ⇒ crucially, this means that the cause of the disjoint-reference effect observed in (52b) must be the anaphor, *himself*
- but this could only be the case if the binding index resided on the outermost projection of the anaphor
 - in contradiction to the predictions of the reductionist hypothesis.

8.2. Cross-linguistic variation?

- Iatridou (1988):
 - reflexive anaphors in Greek a possessed-body-part structure (like that seen earlier for Georgian and Basque);
 - and they can be clitic-doubled (just like other DPs in Greek can);
 - clitics that double full DPs (in Greek, and more generally) typically behave as though they carried the same referential index as their doubled DP does;
 - finally, clitics in Greek can independently be shown to obey Condition B.
 - now, suppose that the binding index on Greek reflexives resided on their outermost layer:
 - clitic-doubling an anaphor that is bound by the local subject (in accordance with Condition A) would give rise to a clitic, which —
 - being itself bound by the local subject
 - would trigger a Condition B effect
 - crucially, no such Condition B effect arises in this case
- ⇒ suggesting that the binding index does not, in fact, reside on the outermost layer of the Greek reflexive.¹⁷

¹⁷I thank an anonymous reviewer for bringing this work to my attention.

- *Is this a problem for the argument in §8.1...?*
 - first, note that when juxtaposed with the results in §8.1 (in particular, exx. (52a–b) and the surrounding discussion) —
 - Iatridou’s results suggest a genuine point of cross-linguistic variation
 - since English anaphors *do* behave as though the binding index resides on their outermost layer
 - but are the Greek results truly problematic for φ -encapsulation?
 - recall that, as discussed in §8.1, reductionism entails that the binding index must reside on PhiP, the bearer of valued φ -features
 - an entailment that was shown to be false, at least in English
 - but, crucially, rejecting reductionism does not entail that binding indices cannot reside on PhiP *ever* (i.e., in any language)
 - nor does rejecting reductionism entail that *if* the binding index does not reside on PhiP in a given language, it must reside specifically on AnaphP —
 - it could reside, in Greek, on some other layer in the extended projection of the anaphor, that is neither of these two

⇒ That there is a language that behaves the way Iatridou shows that Greek behaves does not change the status of the argument in §8.1 one bit.

8.3. Summary

- §8.1–§8.2:
Reductionism, when juxtaposed with the facts of φ -encapsulation, yields false predictions about the structural locus of binding indices (e.g. in English).
- NOTE: This result has a different status than, e.g., the result in §6 showing that timing-based approaches cannot reconcile reductionism with the AAE.
 - to that result one could respond, correctly, that it does not prove the requisite negative
 - *viz.* that there is no reconciling reductionism with the AAE
 - it merely eliminates one contender for doing so (timing-based accounts)
- but the results from this section are more broad —
 - showing that if φ -encapsulation holds (and there’s every reason to believe it does), then reductionism just won’t work.

9. Remaining issues

9.1. Non-AAE-obeying languages

- The account presented in the previous sections derives the AAE as a universal property of all anaphors in all languages
 - its universality deriving from the universality of φ -encapsulation (§4)
- Murugesan (2018, 2019), however, shows that some languages genuinely violate the AAE
 - i.e., exhibit nontrivial agreement with anaphors

9.1.1. Tamil: the basics

- Tamil (Dravidian): NOM-ACC language where only NOM DPs control verbal agreement

(53) Meena Kohli.y-ai paar-t-aal (Tamil)
Meena(NOM) Kohli-ACC see-PAST-3sgF
‘Meena saw Kohli.’ [Murugesan 2018:(13)]

- Tamil also has DAT-subject verbs, whose object then surfaces as NOM
 - and, unsurprisingly, it is then this NOM object that controls agreement

(54) Kohli-ukku Meena kidai-t-aal
Kohli-DAT Meena(NOM) see-PAST-3sgF
‘Kohli got Meena.’ [Murugesan 2018:(14)]

- No accessible NOM DP → only 3sgN agreement

(55) a. Kohli-ukku pasi-t-atu/*aan
Kohli-DAT hungry-PAST-3sgN/*3sgM
‘Kohli was hungry.’
b. Kohli-ukku Meena.v-ai pidi-t-atu/*aan/*aal
Kohli-DAT Meena-ACC like-PAST-3sgN/*3sgM/*3sgF
‘Kohli liked Meena.’ [Murugesan 2018:(16–17)]

➤ Crucially, there appears to be nontrivial agreement with the anaphor *taan*:¹⁸

- (56) a. Kohli-ukku taan tirumba kidai-t-aan
Kohli-DAT REFL(NOM) again got-PAST-3sgM
'Kohli got himself back again.'
- b. Meena-ukku taan tirumba kidai-t-aal
Meena-DAT REFL(NOM) again got-PAST-3sgF
'Meena got herself back again.' [Murugesan 2018:(15a–b)]
- and, in light of (54–55), we can be quite sure that the source of non-3sgN agreement in (56a–b) is not the DAT antecedent.

9.1.2. Murugesan's (2018, 2019) analysis

- Murugesan's (2018, 2019) analysis of these facts appeals to the relative structural height of the φ -probe relative to the antecedent:
 - he proposes that the AAE arises in those languages where the φ -probe is located below the antecedent, and therefore enters the structure earlier
 - at a point when the anaphor has not yet been bound
 - whereas in those languages where the φ -probe is located above the antecedent, the anaphor has already been bound
 - and thus the AAE does not arise
- Tamil, on Murugesan's account, is a language of the latter type
 - assuming that the φ -probe is located on T⁰ and the subject is base-generated lower, e.g. in [Spec,vP]
- Notice that this account is a timing-based account
- And furthermore, it requires reductionism
 - because the difference between a not-yet-bound anaphor and a bound one consists, on this account, in the difference between not having valued φ -features and having valued φ -features
- Crucially, we have already seen that neither assumption is tenable:
 - timing-based approaches do not work (§6)
 - nor does reductionism, even independent of derivational timing (§8)

- Nevertheless, much of the empirical burden in arguing against these approaches was carried by languages like Georgian, Basque, etc.
 - where anaphors are transparently analytic, involving a possessor-possesum structure in which the possessum is a body-part noun
- ⇒ Could we retreat from the conclusions drawn from such data, and reinstate a timing-based account of the kind Murugesan envisions?
 - The answer, I think, is “no.”
- Recall that our explanandum here is the AAE, *viz.* the ban on nontrivial agreement with anaphors
- If we endorse the retreat in question, languages like Georgian and Basque would then stand as a twofold coincidence:
 - **first**, we'd have to say that the reason languages like Basque and Georgian exhibit the AAE is unrelated to (and, in fact, disjoint from) the reason why other languages exhibit the AAE
 - in Basque transitive clauses with a reflexive object, the ABS φ -probe is located on T⁰ (Arregi & Nevins 2012)
 - above both the anaphor and the base position of the antecedent
 - ⇒ Basque is precisely the kind of language predicted *not* to exhibit the AAE, on Murugesan's account
 - on this view, the reason Basque (as well as Georgian) exhibits the AAE is the possessed-body-part structure of its reflexives
 - which is entirely unrelated to the reason other languages exhibit the AAE (the antecedent being higher than the φ -probe)
 - **second**, this purportedly idiosyncratic structure of reflexives, which causes the AAE in languages like Basque and Georgian, is in fact what Middleton (2018) has shown holds universally
 - anaphors involve additional structural layers encapsulating the φ -feature-bearing layer of structure
 - whether it happens to be transparently detectable in a particular language or not

¹⁸Jeffrey Lidz (p.c.) informs me that a similar pattern obtains in Kannada (Dravidian).

- if it were possible to deviate from this on a language-specific basis —
 - her results, concerning the universal ban on discontinuous syncretism in anaphoric expressions, would be left unexplained (see §4 for details)
- ⇒ far from being an exception, these languages are transparent exemplars of the universal structure of anaphors
- yet their behavior, on Murugesan’s account, would have to be cast as some sort of outlier

9.1.3. More Tamil facts

- Before sketching an alternative, non-reductionist, non-timing-based analysis of Tamil (and languages like it) —
 - let me mention two additional facts about agreement with anaphors in Tamil
- First, there are cases that *appear* to instantiate agreement with a (NOM) subject anaphor
 - as opposed to the (NOM) object anaphors we saw earlier

- (57) a. Mani_i [taan_i sathat-ai sapi-t-**aan**-nnu] son-n-aan
 Mani_M self rice-ACC eat-PAST-**3sgM**-COMP say-PAST-3sgM
 ‘Mani_i said that self_i ate the rice.’
- b. Banu_i [taan_i sathat-ai sapi-t-**aal**-nnu] son-n-aal
 Banu_F self rice-ACC eat-PAST-**3sgF**-COMP say-PAST-3sgF
 ‘Banu_i said that self_i ate the rice.’ [Murugesan 2018:(46a–b)]

- but as Murugesan points out:
 - Sundaesan (2016) has shown that this is actually a case of agreement with a perspective-holder
 - and, as such, need not target one of the core arguments at all
- (58) Banu_i [taan_i/*_j saatat-ai sapi-t-**een**-nnu] so-n-aal
 Banu_F self rice-ACC eat-PAST-**1sg**-COMP] say-PAST-3sgF
 ‘Banu_i said that self_i/*_j ate the rice.’ [Murugesan 2018:(48)]

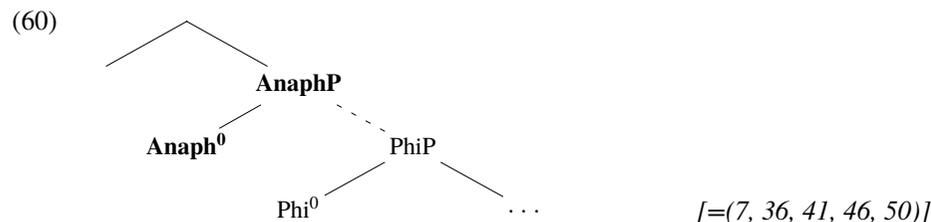
- Second, once one steers clear of perspectival agreement of this sort —
 - we see that *taan* simply cannot be bound by (grammatically) 1st/2nd person antecedents

- for these cases, Tamil instead uses forms that are indistinguishable from the 1st/2nd person pronominals in the language
 - behavior that is reminiscent of the reflexive in Romance
- (59) En-akku_i naan_i tirumba kidai-tt-**een**
 1sg-DAT 1sg.NOM(PRON) again get-PAST-1sg
 ‘I_i got myself_i back again.’ [Sandhya Sundaesan, p.c.]
- ⇒ while agreement with anaphors in Tamil does qualify as *nontrivial* —
 - given, e.g., the bona fide variance in gender features seen in (56a–b)
 - it would also be imprecise to characterize it as full-fledged
 - given that the only true anaphor is restricted to 3rd person φ -features
 - one could therefore imagine a further attenuation of how we define the AAE such that nontrivial agreement *in PERSON features* is the crucial element
 - see Abramovitz 2019 for an approach along these lines

9.1.4. Weighing the options

- Suppose we did not pursue an attenuation of the AAE to PERSON features only
 - Consider what each competing account (Murugesan’s, and the one proposed here) would then have to do to accommodate the data that remains recalcitrant for that account:
 - We have already discussed the pitfalls of excluding languages like Basque —
 - languages in which the φ -probe is situated higher than the typical antecedent
 - from the purview of an AAE account
 - see §9.1.2 for details
- ⇒ There doesn’t seem to be a good way for a timing-based account to deal with the variation between, e.g., Tamil on the one hand, and Basque on the other

- On the φ -encapsulation account pursued here, languages like Tamil could simply be a case where AnaphP is exceptionally *not* syntactically opaque



- either because the normally-phasal AnaphP is exceptionally non-phasal in these languages;
- or because the normally φ -bearing AnaphP instead behaves like a pseudo-partitive
 - in contrast to our conclusions about Basque (see §6.1)
- The former, phase-based approach has parallels in Abels (2003) analysis of preposition stranding¹⁹
 - wherein PP is a phase in most languages —
 - but can be deemed non-phasal by the learner, in light of positive evidence (*viz.* P-stranding)
- This case would be similar:
 - AnaphP would be phasal in the vast majority of languages —
 - but can be deemed non-phasal by the learner, in light of positive evidence (*viz.* nontrivial agreement with anaphors)²⁰
- It is also suggestive, in this regard, that AAE-violating languages like Tamil are roughly as common as preposition-stranding languages like English
 - that is, very rare (modulo the usual caveats on the pitfalls of counting languages)

¹⁹Abels (2012) later pursues an alternative, wherein PP is always phasal, and the difference between P-stranding and non-P-stranding languages consists in the presence of a (possibly unpronounced) morpheme between P and its supposed complement.

²⁰See also Preminger (2019), for an argument from an unrelated empirical domain that children are sensitive to overt morpho-phonological covariance (i.e., nontrivial agreement) in setting the parameters of their language.

9.2. The fate of attempted agreement with anaphors

- One thing we haven't really come back to is:
 - **what happens when a derivation occurs in which agreement with an anaphor is attempted**
- We know that it won't be successful (nontrivial) agreement, because:

(61) ANAPHOR AGREEMENT EFFECT

* $H^0 \dots DP_{ANAPH}$, where \mathcal{R} is a nontrivial φ -agreement relation
 $\underbrace{\hspace{1.5cm}}_{\mathcal{R}} \hspace{10cm} [= (5, 38, 48)]$

➤ But this still leaves us with two possible outcomes:

- (i) a grammatical sentence with a default / nonvarying agreement form
- (ii) ungrammaticality

- Rizzi (1990) was operating on the assumption that only (ii) was possible;

➤ But we've seen that that's clearly false

- instead, we find variation;
- in Icelandic, the result is outright ungrammaticality (ii):

(62) Sigga_i telur [að mér líki hún_i/*sig_i]
 Sigga thinks that me.DAT likes.SBJV.3sg she.NOM/*SIG
 'Sigga_i thinks that I like her_i.'
 [= (10)]

- in Albanian, the result is a (grammatical) default (i):

(63) Vetja më dhimset.
 self.NOM CL.1sg.DAT feel.sorry.for.3sg.PRES.NONACTIVE
 'I feel sorry for myself.'
 [= (3, 42)]

- Furthermore, as pointed out by Murugesan (2018):

- the Icelandic pattern, where SIG in agreeing positions results in outright grammaticality, is surprising in and of itself
- that is because, as shown in (64a–b):
 - actual agreement with nominative objects in Icelandic exhibits optionality (see also Hornstein 2018)

(64) a. Henni leiddist þeir
she.DAT was.bored.by.3sg they.NOM
'She was bored with them.'

b. Henni leiddust þeir
she.DAT was.bored.by.3pl they.NOM
'She was bored with them.'

[Taraldsen 1995:307]

- Importantly, the surface structure of an anaphor —
 - whether it appears morphologically simplex or complex, whether it alternates overtly for φ -features or not
 — is not predictive of the behavior of the anaphor w.r.t. the AAE.
- There are simplex anaphors that:
 - can occur in the relevant positions with invariant 3sg agreement (Albanian)²¹
 - cannot occur in the relevant positions at all (Icelandic)
- There are complex anaphors that:
 - can occur in the relevant positions with invariant 3sg agreement (Basque)
 - cannot occur in the relevant positions at all (Italian)
- There are φ -varying anaphors that:
 - can occur in the relevant positions with invariant 3sg agreement (Basque)
 - cannot occur in the relevant positions at all (Italian)
- There are φ -invariant anaphors that:
 - can occur in the relevant positions with invariant 3sg agreement (Inuktitut)²²
 - cannot occur in the relevant positions at all (Icelandic)
- Similarly, the properties of the language don't seem to be predictive of these behaviors, either:

- Basque is an ERG-ABS language and its reflexive is complex
 - and its reflexive occurs with invariant 3sg agreement
- Albanian is a NOM-ACC language and its reflexive is simplex
 - and yet it behaves exactly like Basque
- Icelandic is like Albanian in being NOM-ACC and having a simplex reflexive
 - but behaves the opposite way with respect to the fate of this reflexive in positions that would otherwise trigger agreement
- This is important because it shows that rejecting the universality of φ -encapsulation —
 - i.e. breaking the class of anaphors into separate subclasses, each with a different syntactic structure for anaphors
 — is not only problematic from the perspective of the facts surveyed in §4;
 - It also provides no apparent help in understanding the phenomena at hand.
- Finally:
 - while the encapsulation hypothesis provides no particular insight into whether you'll get (i) (a grammatical sentence with invariant φ -agreement) or (ii) (ungrammaticality) —
 - neither do approaches based on reductionism and/or derivational timing
- Consider:
 - if one assumed that agreement with an anaphor that has not yet been bound, or whose φ -features have not yet been valued, gives rise to ungrammaticality —
 - ⇒ then Albanian, Basque, and languages like them would remain unexplained
 - if one assumed that such agreement gives rise to default, 3sg agreement —
 - ⇒ then Icelandic, English, and languages like them would remain unexplained
- As it concerns English and Icelandic, one could appeal to a morphological gap in the nominative cell of the reflexives paradigms;
- But since Albanian does not have such a gap, this seems like a restatement of the explananda, rather than an explanation.

²¹On the simplex nature of Albanian *vetja*, see Franks (2013).

²²On Inuktitut reflexive anaphors, see Yuan (2018).

- Moreover, Rizzi (1990:34) provides good reason to think that the Italian pattern (which is essentially English/Icelandic-like) could not possibly arise because of a paradigm gap
 - since NOM-ACC syncretisms in the 1st/2nd person in Italian mean that the form of the allegedly “missing” reflexives is in fact fully predictable²³
- Overall:
 - there doesn’t seem to be a theory of the outcomes of AAE violations (default vs. ungrammaticality) currently in the offing
 - and this doesn’t distinguish the approaches under considerations here (timing and/or reductionism, vs. encapsulation)

10. Conclusion

- The AAE is about a ban on (nontrivial) *agreement with* an anaphor
 - not about restrictions on the positions that anaphors can occur in (contra Rizzi 1990)
- φ -feature-matching between binder and bindee is in no way an argument for any involvement of syntactic φ -agreement
- Anaphors involve structural encapsulation (following Middleton 2018)
- A timing-based reductionist approach to the AAE doesn’t work
- In fact, *any* reductionist approach doesn’t work, in light of the AAE
- Encapsulation, without reductionism (which is untenable anyway), suffices to explain the AAE
 - or at least those aspects of the AAE that anyone currently purports to have an explanation for



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