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; cf.:

(4) * A voi   interessa   solo *voi* stessi.
     to you.DAT.pl interest.3sg only yourselves(NOM)
     'You are interested only in yourselves.'

- Thus:[1]

(5) 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. (5))

- **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:

(6) ANAPHOR AGREEMENT EFFECT

* H^0 . . . DP$_{\text{ANAPH}}$, where $\mathcal{R}$ is a nontrivial φ-agreement relation
         $\mathcal{R}$

(7) 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.)

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[1] Woolford (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 (see also Deal 2010). Nevertheless, the form of these markers 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 (6) 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

  (8) THE φ-ENCAPSULATION HYPOTHESIS

  AnaphP

  Anaph⁰ PhiP

  Phi⁰ . . .
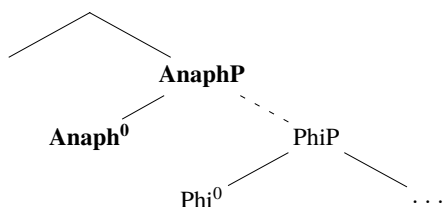
  ○ in other words, the structure that is transparently realized in a language
  like Georgian —

  (9) [[tʃems] 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 (10), the embedded subjunctive verb agrees with the NOM subject (*þú* "you"),
  not with SIG

(10) 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**.'   [*Thráinsson 2007:467*]

  ⇒ accordingly, there is no violation in (10)

* Contrast this with (11):

  ○ 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 function

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

(11) 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 (11).

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

(12) 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 (10–12) *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.):

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[2]It has been argued, by Thráinsson (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 (6). 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 (6) 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), Thráinsson
(1991, 1992), among others, for further discussion.

(13) sensei**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 (10–12);

  ➢ but it would make the wrong predictions for the Japanese (13)

    – 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 (13) once more, as well as (11), repeated here:

(11) 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 (11) without incorrectly ruling out (13) —

    ○ it is necessary for *at least one* of the following conditions to hold:

  (i) Japanese, Korean, and all other languages like them do <u>not</u> have an abstract,
    morpho-phonologically unexpressed version of the agreement relation in (11)

  (ii) the AAE is a morphological constraint, rather than a syntactic one

  • To see why, suppose that both (i) and (ii) were <u>false</u> —
    What would distinguish the NOM anaphor in (11) from its counterpart in (13)?

    ○ it cannot be the presence of overt agreement with the anaphor in (11), 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 (11) —

    – there is no explanation for why the anaphor in (13) is licit, while the one
      in (11) is not.

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

• 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 H^0 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 span[3]

    – 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 morphology[4]

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[3]This 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.

[4]While 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.

– 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 <u>true</u>, and (ii) is <u>false</u>

⇒ (i) must be <u>true</u>.

➢ 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

· where I have termed this the *no-null-agreement* generalization

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:

(14) 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 <u>transitive closure</u>

– 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

- It is important to note that the mention of *binding index* in (14) is a matter of convenience

○ and does not reflect any commitment to the ontological reality of indices (in syntax or in semantics)

➢ Concretely, "X and Y share a binding index" should be understood here and throughout as shorthand for "X and Y behave, binding-theoretically, the way that index-based theories of binding predict they would behave if they shared an index."

- For some proponents of reductionism, it 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 <u>unrelated to the AAE</u> 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 (2019), Preminger (2013) and Preminger & Polinsky (2015), *a.o.*[5]

○ binding, on the other hand, transmits values *downward* in the structure

– from a c-commanded goal to a c-commanding probe

⇒ the idea that binding requires φ-agreement is antithetical to what we know from actual φ-agreement[6]

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[5]There have been attempts in the literature to challenge this claim concerning the directionality of φ-agreement. But these are either empirically inadequate (e.g. Zeijlstra 2012, as discussed in Preminger 2013), or require assumptions about φ-agreement that are known to be false. An example of the latter is Bjorkman & Zeijlstra (2019), whose theory depends on the assumption that, alongside *valuation*, every φ-agreement relation includes a *checking* component—an assumption known to be incorrect (Preminger 2011a, 2014).

[6]Not *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).

(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-agreement[7]

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

(15) Only <u>the present authors</u> think <u>we</u> know how to do syntax.

[*Collins & Postal 2012:253n1*]

(16) <*pointing to different individuals in succession*>
<u>You</u> should leave, but <u>you</u> should stay here.

- moreover, it has been reported (by Collins & Postal) that *we* in (15) even has a <u>bound</u> reading

⟹ 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.

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[7]Sandhya Sundaresan (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 $\not\Rightarrow$ 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-unanteceded deixis
- And this is so even when it comes to those φ-features which are not interpreted
    - e.g. grammatical gender on inanimates

- Consider:

(17) No linguist who has <u>purple pants</u> looks silly in <u>them/*it</u>.

(18) a. kol   exad ʃe-yeʃ   l-o   <u>maxberet</u>   ʃe-ya-sim
        every one   that-EXIST DAT-3sgM notebook(F)   that-3sgM.FUT-put
        <u>ot-a/*ot-o</u>   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 ʃe-yeʃ   l-o   <u>maxʃevon</u>   ʃe-ya-sim
        every one   that-EXIST DAT-3sgM calculator(M) that-3sgM.FUT-put
        <u>ot-o/*ot-a</u>   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 (17–18) 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 <u>non-syntactic</u> 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 (17–18) 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 (17–18) 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 <u>not</u> 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-unanteceded deixis:

(19) A: Where are the scissors?
    B: They are right here.

  - these exhibit φ-matching across different utterances, across different speakers[8]

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[8]It 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:

(20) <*pointing to a pair of saloon-style doors*>
    ir-a-kingu-ye   (Kinyarwanda)
    4<small>SUBJ</small>-<small>PAST</small>-open-<small>PRFV</small>
    'They are open.' ('They have been opened.')

  - crucially, the subj.-agreement marker in (20) 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 <u>syntactic</u> 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 <u>all</u> of what syntactic φ-agreement was posited for
- Dowty & Jacobson (1988), discussing a related set of facts, hint (at the very least) at this possibility[9]
➢ 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 (21) ('≫' represents c-command, and H is some functional head):

(21) H ≫ DP$_1$ ≫ DP$_2$

  - 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 DP$_2$ across DP$_1$ in this case[10]

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

[10]This 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 DP$_2$ 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 & Hróarsdóttir (2003), *a.o.*

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

(23) [Einhverjum stúdent]$_1$ finnast t_1 tölvurnar ljótar
    some student.DAT find.PL computers.the.NOM ugly
    'Some student finds the computers ugly.'

                                               [*Holmberg & Hróarsdóttir 2003:999–1000*]

- Binding, on the other hand, behaves differently:[11]

(24) a.   The children$_1$ seem to her$_{j/*i}$ to have t_1 amused Mary$_i$.
    b. * The children$_1$ seem to me to have t_1 amused myself.
    c.   The children$_1$ seem to me to have t_1 amused each other.

  - we know from (24a) 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 (24b)?

  - 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 (22–23)
  - if, on the other hand, it is because the embedded infinitive in (24) constitutes its own binding domain —
    - then we have to posit a local binder <u>within</u> this embedded domain in (24c)
      ⇒ showing again that A-traces must count for binding
    ➢ again, contra the behavior of φ-agreement (22–23)

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[11]Thanks 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 (17–18) (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 (17–18).

⇒ <u>Overall:</u> 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)

- <u>Middleton (2018):</u> 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)

(25) a. "ANAPHOR"
       Diana λx (x thinks that only Charles λy (y loves $\boxed{y}$))
    b. "DIAPHOR"
       only Diana λx (x thinks that Charles λy (y loves $\boxed{x}$))
    c. "EXOPHOR"
       only Diana λx (x thinks that Charles λy (y loves $\boxed{z}$)), where $z =$ Diana
    d. "PRONOUN"
       only Diana λx (x thinks that Charles λy (y loves $\boxed{z}$)), where $z \neq$ Diana

➤ KEY FINDING: <u>a ban on discontinuous syncretism</u>

(26) English: **AAAB**

    a. Diana thinks that only Charles loves HIMSELF.
    ~ Diana λx (x thinks that only Charles λy (y loves $\boxed{y}$))

    b. Only Diana thinks that Charles loves HER.
    ~ only Diana λx (x thinks that Charles λy (y loves $\boxed{x}$))
    ~ only Diana λx (x thinks that Charles λy (y loves $\boxed{z}$)), where z = Diana
    ~ only Diana λx (x thinks that Charles λy (y loves $\boxed{z}$)), where $z \neq$ Diana

(27) Icelandic: **AABC** (also: Malayalam, some dialects of Mandarin)

    a. Díana telur   að aðeins Karl   elski sjálfan sig
    Diana believes that only   Charles loves SJALFAN SIG
    ~ Diana λx (x thinks that only Charles λy (y loves $\boxed{y}$))

    b. Aðeins Díana telur   að Karl   elski sig
    only   Diana believes that Charles loves SIG
    ~ only Diana λx (x thinks that Charles λy (y loves $\boxed{x}$))

    c. Aðeins Díana telur   að Karl   elski hana
    only   Diana believes that Charles loves HANA
    ~ only Diana λx (x thinks that Charles λy (y loves $\boxed{z}$)), where z = Diana
    ~ only Diana λx (x thinks that Charles λy (y loves $\boxed{z}$)), where $z \neq$ Diana

[*Jane Middleton, p.c.*]

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

- <u>Caha (2009)</u> (abridged): a similar ban on discontinuous syncretism, in the forms
of NOM-ACC-DAT case paradigms (see also Harðarson 2016, Zompí 2016)

(29)

	'arm'		'land'		'queen'		(Icelandic)
NOM	arm-ur	**A**	land-∅	**A**	drottning-∅	**A**	
ACC	arm-∅	**B**	land-∅	**A**	drottning-u	**B**	
DAT	arm-s	**C**	land-i	**B**	drottning-u	**B**	

[*Harðarson 2016:1332*]

➢ Caha's (2009) proposal: *structural containment*

    (see also Bobaljik 2012, Smith et al. 2016 for containment-based accounts of other bans on discontinuous syncretism)

(30)

```
            DATIVE
           /      \
   ACCUSATIVE       d
     /     \
NOMINATIVE   a
    /  \
   · · ·
```

- How this works:
  - assume that there can be Vocabulary Insertion rules for non-terminals
    - when more than one of these rules is applicable, the one chosen is the one with the most specified (i.e., structurally-rich) insertion context[12]

    (this is the *Superset Principle* of nanosyntax; see Caha 2009:55)

---

[12] As an illustration, consider a hypothetical vocabulary that includes the following items:

(i) a.

```
      nP
     /  \
   n⁰    √
         |
       MOUSE
```
$\Longrightarrow$ *mouse* (/mæʊs/)

    b.

```
       NumP
      /    \
   Num⁰     nP
    |      /  \
    pl    n⁰   √
              |
            MOUSE
```
$\Longrightarrow$ *mice* /mɑjs/

With these insertion rules in place, a structure like (ii) could only be spelled out as *mice* (/mɑjs/), and not *mouse* (/mæʊs/) or *mouses* (/mæʊs/+/z/), because the insertion rule in (i.b) is both applicable and more specific than the one in (i.a).

(ii)

```
       NumP
      /    \
   Num⁰     nP
    |      /  \
    pl    n⁰   √
              |
            MOUSE
```

- now consider a language with different forms for the NOM and the ACC
  - i.e., a pattern that starts with **AB_**
- there are two options for how the DAT is formed:
  - **(i)** the DAT is cumulative relative to the ACC
    - this would arise if there was no specific insertion rule targeting the DATIVE node
    - ⇒ the spellout of the DAT would be the spellout of the *d* node, affixed to the spellout of the ACC
    - if the spellout of *d* is null, the result will be form-identical to the ACC, resulting in **ABB**
    - if, on the other hand, the spellout of *d* is non-null, then, setting cases of accidental homophony aside, the result will be **ABC**
  - **(ii)** the spellout of the DAT is the result of a specific Vocabulary Insertion rule targeting the DATIVE node in (30)
    - this would also yield an **ABC** pattern (again, setting accidental homophony aside)

➢ crucially, there are only two possible derivations that would lead to the undesired **ABA** pattern, and both involve accidental homophony:
  - **(i)** a Vocabulary Insertion rule that applies to the DATIVE node and inserts phonological material that is accidentally identical to the spellout of the NOMINATIVE node
  - **(ii)** there is no insertion rule that applies to the DATIVE node, but:
    - there is one that applies to the ACCUSATIVE node;
    - the latter is truncative relative to the spellout of the NOMINATIVE node (i.e., it idiosyncratically inserts a substring of the NOM form; cf. the ACC of 'arm' in (29))
    - and the spellout of the *d* node just happens to be identical to that truncated portion

    (this would be the case if, e.g., the DAT suffix on 'arm' in (29) had been *-ur*, contrary to fact)

  - assuming that such cases of accidental homophony are ruled out —
    - · by the learning mechanism if not by the grammar itself
  - — the impossibility of **ABA** patterns (i.e., discontinuous syncretism in the domain of NOM-ACC-DAT case forms) is derived

- As noted by Caha (2017):
  - a ban on discontinuous syncretism is <u>not</u> an unambiguous indicator of containment (see also Bobaljik & Sauerland 2018)
- It can also arise through *partial featural overlap*
- Crucially, however, evidence of strict morpho-phonological cumulativity in a given empirical domain militates against such an account, and in favor of a containment-based one
  - see Middleton (2018:12–21) for discussion

➢ And, lo and behold:

(31)   ANAPHOR   *awake dheen dhewe*   (PJS)
     DIAPHOR/EXOPHOR   *awake dheen*
          PRONOUN   *dheen*   [*Cole et al. 2007*]

⇒ Therefore:

(32)   ANAPHOR   [*Middleton 2018*]
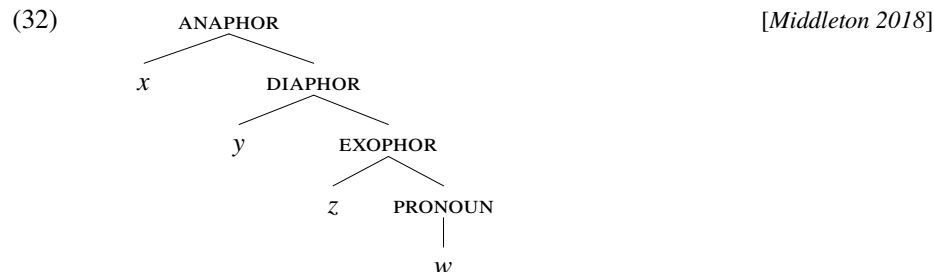
- Two things about (32):
  - first, it is necessarily the case that (32) represents a *universal*, cross-linguistically invariant structure for the expressions in question
    - if we relax this assumption:
      · the explanation for why there is not a single example of discontinuous syncretism in Middleton's (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 (32) reduces to (33):

(33)

                                               [=(8)]
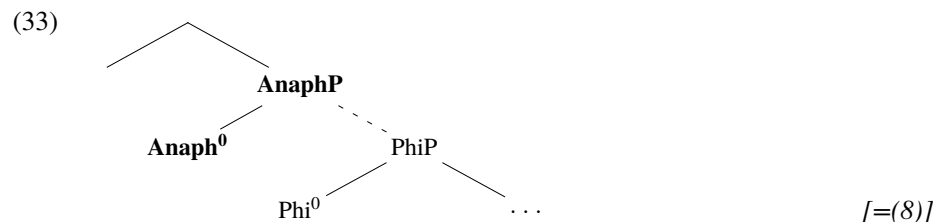
  - that's because the φ-bearing layer of (32) can be no higher than PRONOUN —
    · given that pronouns can bear the full range of available φ-features
  - and the anaphoricity layer obviously corresponds to Middleton's DIAPHOR and ANAPHOR layers in (32)
  - ⇒ **(33) is the partial structure of (32) that's 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:

(34) THE REDUCTIONIST POSITION   *[=(14)]*
   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 <u>transitive closure</u>

     – 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, (34) predicts the systematic absence of anything like
  the AAE

- That is because:
  ○ anaphors are, by definition, bound;
  ○ and by (34), binding entails φ-agreement;
  ○ and an anaphor is, by definition, a target with valued φ-features[13]
  ⇒ successful, nontrivial agreement with anaphors should be the natural state
    of affairs —

    – in direct opposition to (35):

(35) ANAPHOR AGREEMENT EFFECT

   * H^0 . . . DP$_{\text{ANAPH}}$, where $\mathcal{R}$ is a <u>nontrivial</u> φ-agreement relation   *[=(6)]*
         $\mathcal{R}$

➢ 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)

---

[13]A 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 (34) 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).

6. A timing-based approach to the AAE

- One way around the apparent paradox identified in §5:
  ○ assume that the anaphor has not yet acquired valued φ-features **at the
    derivational stage at which it is targeted for φ-agreement**

- On this view, anaphors begin their derivational life in a <u>φ-deficient</u> state —
  ○ and they acquire φ-feature values via the very φ-agreement relation
    implicated in the reductionist position (34)

- Suppose this is so; let us see what this entails for anaphoric binding,
  φ-agreement, and reductionism . . .

6.1. Reflexives in Basque

6.1.1. The basics

(36) a. <*pro*.2pl.ERG> [zeuen   buru-a]   saldu d-∅-u-zue
                        2pl(strong).POSS head-ART$_{sg}$(ABS) sold 3A-sgA-√-2plE
      'Y'all have given yourselves away'
      (*lit.*: 'Y'all have sold y'all's head.')

     b. <*pro*.2pl.ERG> [zuen   buru-a]   saldu d-∅-u-zue
                         2pl(weak).POSS head-ART$_{sg}$(ABS) sold 3A-sgA-√-2plE
      'Y'all have given yourselves away'
      (*lit.*: 'Y'all have sold y'all's head.')   [*Artiagoitia 2003:620*]

- The structure of Basque reflexives:

  (37) [PRON.GEN N D]

  where:
  ○ PRON.GEN can be a strong or weak possessive pronoun;
  ○ and N is a designated noun *buru* ("head")

- As the examples in (36a–b) demonstrate, Basque obeys the AAE:
  ○ the reflexives (bracketed above) trigger invariant 3rd person agreement

- Morphologically speaking, the head noun *buru* is indeed 3rd person
  ○ while the possessor bears φ-features matching those of the antecedent

➢ For the purposes of this section, I'm assuming <u>for the sake of argument</u> that
  once these feature-values are present on the possessor —
  ○ they are also visible from outside the entire anaphor

- This could be because of:
  - feature-percolation (from the possessor to the entire possessum DP); *or*
  - the head noun *buru* behaving in a manner analogous to pseudo-partitives
    - i.e., projecting an extended nominal projection that is transparent to φ-agreement

  (The alternative, whereby valued φ-features on the possessor of *buru* are <u>not</u> visible from outside the reflexive anaphor, is what I will actually be arguing for; see §7 onwards.)

6.1.2. A note about NUMBER in Basque reflexives

- In cases where the binder (and, consequently, the possessive pronoun) is plural, the head-noun *buru* can <u>optionally</u> be plural as well
  - e.g. in the ABS: *buru-a* ("head-ART$_{sg}$(ABS)") <u>or</u> *buru-ak* ("head-ART$_{pl}$(ABS)")
- But notice that, given that *buru* can still be singular even when antecedent & possessive pronoun are plural —
  - it is quite clearly *not* the NUMBER features associated with the binding index that are being expressed here
- Rather, this is probably a 'dependent plural' effect (cf. *The plastic surgeons gave each other a new nose / new noses*)
- ⇒ I leave this issue aside here[14]

6.1.3. Are we "digging in the right place"?

- At this juncture, one may wonder if reflexives in Basque are really what we should be focusing on —
  - given that they have this particular possessed-body-part structure

  (much like Georgian reflexives, discussed in §1.1)

- But recall the results of §4:

(38) THE φ-ENCAPSULATION HYPOTHESIS *[=(33)]*
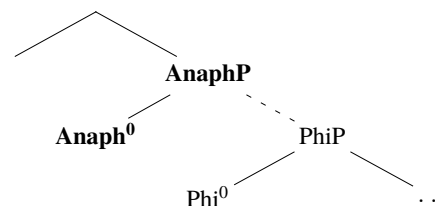
  - what Basque (and Georgian) shows *overtly* —
    - · a pronominal, φ-bearing layer, properly contained in a separate structural layer (in this case, the layer headed by the body-part noun) that renders the expression anaphoric
  - — is precisely what's going on, albeit in a way that is morphologically less transparent, even in a language like, e.g., Albanian:

(39) 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 <u>all</u> reflexives!

6.1.4. Anaphoric binding in Basque transitives

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

---

[14]Though I note (following a suggestion by a reviewer) that this may be taken to support a variation of the current proposal in which the AAE is defined in terms of PERSON features only (see Abramovitz 2019, who develops precisely such an alternative).

⇒ 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)

(40)
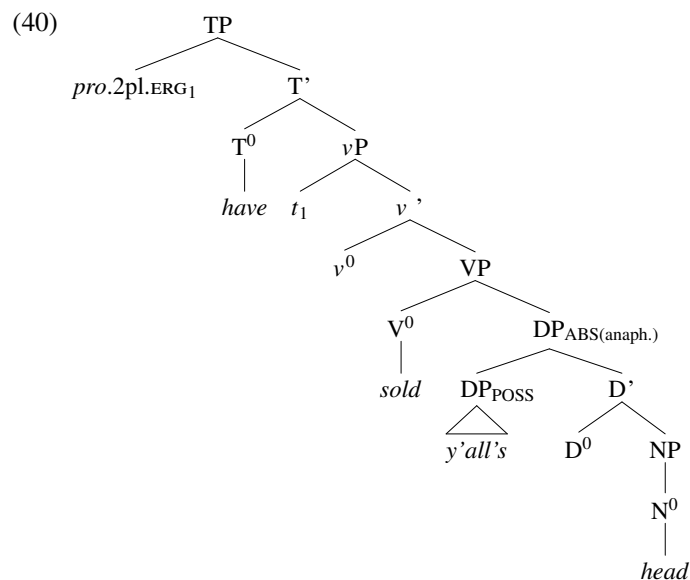
'Y'all have given yourselves away'
(*lit.*: 'Y'all have sold y'all's head.')   *[=(36)]*

- 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 (41a–c) (repeated from earlier), A-traces can & do bind

(41) a.   The children$_1$ seem to her$_{\mathbf{j}/\mathbf{*i}}$ to have t_1 amused Mary$_{\mathbf{i}}$.   *[=(24a–c)]*
      b. ✱ The children$_1$ seem to me to have t_1 amused myself.
      c.   The children$_1$ seem to me to have t_1 amused each other.

⇒ The φ-bearing subpart of the reflexive will acquire its φ-features <u>before</u> 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 clause[15]

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 (40)

            · 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.*)

---

[15] A 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).

(42)   probe   DP   probe   DP

       | | φ-agr.

       [...]   [...] $\Longrightarrow$ [...]
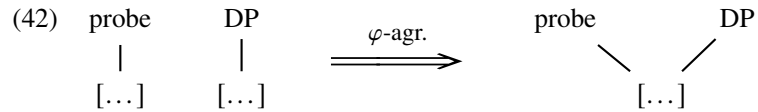
- The result of φ-agreement between a direct-object anaphor and whichever φ-probe agreed with it would be a feature-sharing structure like (42)

- 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.

7. An encapsulation-based approach to the AAE

- Upshot of §4:

(43) THE φ-ENCAPSULATION HYPOTHESIS   *[=(8, 33, 38)]*

```
              ╱╲
            ╱    ╲
          AnaphP
        ╱      ╲
   Anaph⁰       PhiP
            ╱      ╲
         Phi⁰       · · ·
```

- Upshot of §6.1:

(44)
```
                TP
            ╱        ╲
    pro.2pl.ERG₁      T'
                   ╱      ╲
                 T⁰         vP
                ╱        ╱      ╲
             have    t₁         v'
                            ╱      ╲
                          v⁰        VP
                               ╱       ╲
                             V⁰      DP_ABS=(AnaphP)
                           ╱      ╱            ╲
                        sold  DP_POSS(=PhiP)    D'
                                  ╱╲          ╱    ╲
                               y'all's      D⁰      NP
                                                    │
                                                    N⁰
                                                    │
                                                   head
```
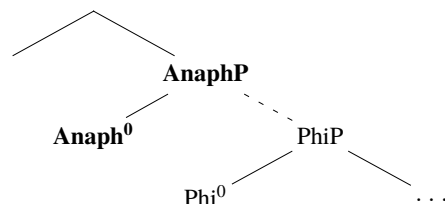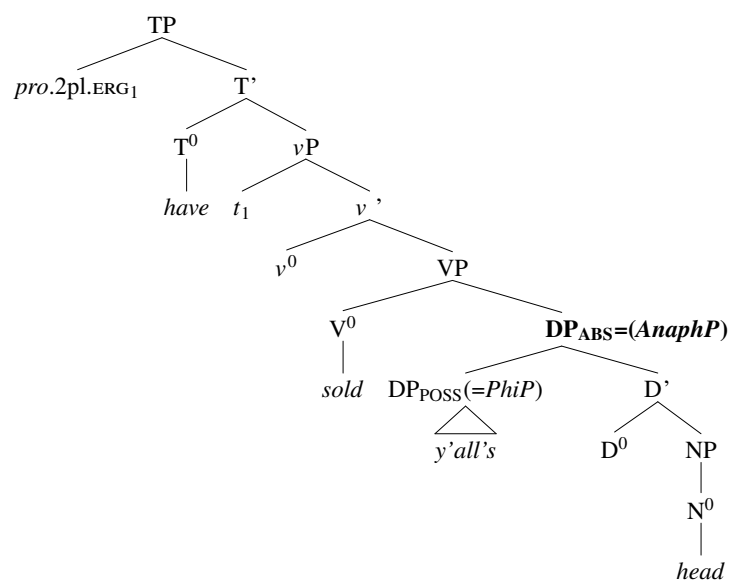
'Y'all have given yourselves away'
(*lit.*: 'Y'all have sold y'all's head.')   *[=(36)]*

- Suppose the AAE arises because φ-agreement comes upon a structural layer —
  - · AnaphP in (43) (instantiated by DP_ABS(anaph.) in (44))
  — that prevents access to the feature-values hosted on the φ-bearing portion of the reflexive
  - · PhiP in (43) (instantiated by DP_POSS in (44))

- 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 (44)) and the antecedent is enforced by *NSM* (see §3)
  - ○ but a φ-probe located properly outside the AnaphP layer (DP_ABS(anaph.) in (44)) will run into this opaque layer
    - – eliminating the possibility of nontrivial φ-agreement
    - – and yielding the AAE (repeated below)

(45) ANAPHOR AGREEMENT EFFECT

   * H⁰ . . . DP_ANAPH, where $\mathcal{R}$ is a <u>nontrivial</u> φ-agreement relation
   $\underbrace{\quad\quad\quad\quad\quad}_{\mathcal{R}}$
                                                        [=(6, 35)]

8. Encapsulation and reductionism

8.1. A false prediction

- The reductionist position, one more time:

(46) THE REDUCTIONIST POSITION   *[=(14, 34)]*
  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 <u>transitive closure</u>
      - 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

$\Rightarrow$ That means that in a structure like (47) —

(47)

```
            AnaphP
          /       ⋅
       Anaph⁰      PhiP
                  /    ⋅
              Phi⁰      · · ·          [=(8, 33, 38, 43)]
```
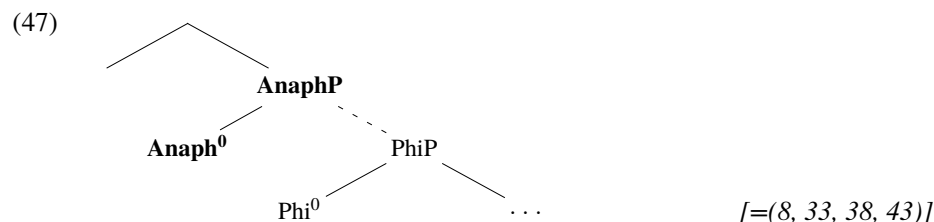
  — it is necessarily PhiP that is bound by the antecedent (!)

- This yields a testable prediction
- Because AnaphP and PhiP are distinct structural layers (§4), and PhiP is the one
  bound by the antecedent:[16]

(48) REDUCTIONIST PREDICTION:
  the outermost layer of a reflexive anaphor should behave as if it is *not* the
  bearer of the relevant binding index

---

[16]It 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). 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; cf. (46)), and nothing more would need to be said in this section.

- In light of this, consider (49a–b):

(49) 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 (49a) 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
$\Rightarrow$ crucially, this means that the cause of the disjoint-reference effect observed
  in (49b) 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?

- <u>Iatridou (1988)</u>:
    - reflexive anaphors in Greek have 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
$\Rightarrow$ suggesting that the binding index does not, in fact, reside on the outermost
  layer of the Greek reflexive.[17]

---

[17]I 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. (49a–b) and the surrounding discussion) —
    - Iatridou's results suggest a genuine point of cross-linguistic variation
      - · since English anaphors <u>do</u> 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

- <u>§8.1–§8.2:</u>
  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 <u>no</u> 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

(50) Meena   Kohli.y-ai   paar-t-aal   (Tamil)
     Meena$_F$(NOM) Kohli$_M$-ACC see-PAST-3sgF
     'Meena$_F$ saw Kohli$_M$.'   [*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

(51) Kohli-ukku Meena   kidai-t-aal
     Kohli$_M$-DAT Meena$_F$(NOM) get-PAST-3sgF
     'Kohli$_M$ got Meena$_F$.'   [*Murugesan 2018:(14)*]

- No accessible NOM DP ⟶ only 3sgN agreement

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

➢ Crucially, there appears to be nontrivial agreement with the anaphor *taan*:[18]

(53) a. Kohli-ukku taan   tirumba kidai-t-aan
    Kohli$_M$-DAT REFL(NOM) again   get-PAST-3sgM
    'Kohli$_M$ got himself back again.'

    b. Meena-ukku taan   tirumba kidai-t-aal
    Meena$_F$-DAT REFL(NOM) again   get-PAST-3sgF
    'Meena$_F$ got herself back again.'   [*Murugesan 2018:(15a–b)*]

    ○ and, in light of (51–52), we can be quite sure that the source of non-3sgN agreement in (53a–b) is <u>not</u> 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 T^0 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-possessum 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 T^0 (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 <u>universally</u>
    - – 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

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[18]Jeffrey 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, *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

(54) 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 Sundaresan, p.c.*]

⇒ While agreement with anaphors in Tamil does qualify as *nontrivial* —

     · given, e.g., the bona fide variance in gender features seen in (53a–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

➢ But since NUMBER agreement with anaphors is not generally permitted

     (see, e.g., Amiridze 2003 on the AAE in Georgian)

— it seems to me that adopting a PERSON-only AAE misses an important part of the picture.

- Second, there are cases that *appear* to instantiate agreement with a (NOM) subject anaphor

  ○ as opposed to the (NOM) object anaphors we saw earlier

(55) 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:

     – Sundaresan (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

(56) 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)*]

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

(57)

AnaphP

Anaph⁰ PhiP

Phi⁰ $\cdots$ *[=(8, 33, 38, 43, 47)]*
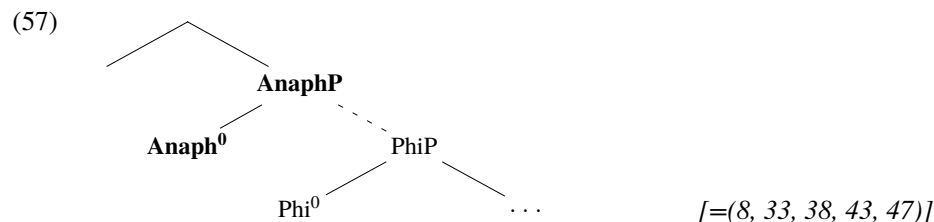
- either because the normally-phasal AnaphP is exceptionally non-phasal in these languages;
- or because the normally φ-bearing AnaphP instead behaves like a pseudo-partitive
  - in contrast to our conclusions about Basque (see §6.1)
- The former, phase-based approach has parallels in Abels (2003) analysis of preposition stranding[19]
  - 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)

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[19]Abels (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.

[20]See 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:

(58) ANAPHOR AGREEMENT EFFECT

     $*$ H⁰ $\ldots$ DP$_{\text{ANAPH}}$, where $\mathcal{R}$ is a <u>nontrivial</u> φ-agreement relation

       $\mathcal{R}$ *[=(6, 35, 45)]*

- ➤ 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):

(59) 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**.' *[=(11)]*

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

(60) Vetja më dhimset.
self.NOM CL.1sg.DAT feel.sorry.for.3sg.PRES.NONACTIVE
'I feel sorry for myself.' *[=(3, 39)]*

- Furthermore, as pointed out by Murugesan (2018):
  - the Icelandic pattern, where SIG in agreeing positions results in outright ungrammaticality, is surprising in and of itself
  - that is because, as shown in (61a–b):
    - actual agreement with nominative objects in Icelandic exhibits optionality (see also Hornstein 2018)

(61) 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

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[21]On the simplex nature of Albanian *vetja*, see Franks (2013).
[22]On Inuktitut reflexive anaphors, see Yuan (2018).

- 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.

- 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 predictable[23]

- 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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[23]Thanks to an anonymous reviewer for help here.

References

Abels, Klaus. 2003. *Successive cyclicity, anti-locality, and adposition stranding*. Doctoral dissertation, Storrs, CT: University of Connecticut.

Abels, Klaus. 2012. *Phases: an essay on cyclicity in syntax*. Linguistische Arbeiten 543, Berlin: de Gruyter.

Abramovitz, Rafael. 2019. *What can agreeing anaphors tell us about the Anaphor Agreement Effect?*, Paper presented at the 42nd Generative Linguistics in the Old World (GLOW) Colloquium, Oslo.

Amiridze, Nino. 2003. The anaphor agreement effect and Georgian anaphors. In *Empirical issues in formal syntax and semantics*, eds. Claire Beyssade, Olivier Bonami, Patricia Cabredo Hofherr & Francis Corblin, 4, 99–114. Paris: Presses de l'Université Paris-Sorbonne.

Anagnostopoulou, Elena. 2003. *The syntax of ditransitives: evidence from clitics*. Berlin: Mouton de Gruyter.

Andrews, Avery D. 1971. Case agreement of predicate modifiers in Ancient Greek. *Linguistic Inquiry* 2:127–151.

Arregi, Karlos & Andrew Ira Nevins. 2012. *Morphotactics: Basque auxiliaries and the structure of spellout*. Studies in Natural Language & Linguistic Theory 86, Dordrecht: Springer.

Artiagoitia, Xabier. 2001. Seemingly ergative and ergatively seeming. In *Features and interfaces in Romance: essays in honor of Heles Contreras*, eds. Julia Herschensohn, Enrique Mallen & Karen Zagona, 1–22. Amsterdam: John Benjamins.

Artiagoitia, Xabier. 2003. Reciprocal and reflexive constructions. In *A grammar of Basque*, eds. Jose Ignacio Hualde & Jon Ortiz de Urbina, 607–632. Berlin: Mouton de Gruyter.

Béjar, Susana & Milan Rezac. 2009. Cyclic Agree. *Linguistic Inquiry* 40:35–73, DOI: <10.1162/ling.2009.40.1.35>.

Bjorkman, Bronwyn & Hedde Zeijlstra. 2019. Checking up on (φ-)agree. *Linguistic Inquiry* 50:527–569, DOI: <10.1162/ling_a_00319>.

Bobaljik, Jonathan David. 2008. Where's phi? Agreement as a post-syntactic operation. In *Phi Theory: phi-features across interfaces and modules*, eds. Daniel Harbour, David Adger & Susana Béjar, 295–328. Oxford: Oxford University Press.

Bobaljik, Jonathan David. 2012. *Universals in comparative morphology: suppletion, superlatives, and the structure of words*. Cambridge, MA: MIT Press.

Bobaljik, Jonathan David & Uli Sauerland. 2018. ABA and the combinatorics of morphological features. *Glossa* 3:15, DOI: <10.5334/gjgl.345>.

Boeckx, Cedric & Youngmi Jeong. 2004. The fine structure of intervention in syntax. In *Issues in current linguistic theory: a festschrift for Hong Bae Lee*, eds. Chungja Kwon & Wonbin Lee, 83–116. Seoul: Kyungjin.

Branan, Kenyon. 2018. *Relationship preservation*. Doctoral dissertation, Cambridge, MA: MIT. URL: <https://ling.auf.net/lingbuzz/004191>.

Bruening, Benjamin. 2014. Defects of defective intervention. *Linguistic Inquiry* 45:707–719, DOI: <10.1162/LING_a_00171>.

Caha, Pavel. 2009. *The nanosyntax of case*. Doctoral dissertation, Tromsø: University of Tromsø.

Caha, Pavel. 2017. How (not) to derive a *ABA: the case of Blansitt's generalisation. *Glossa* 2:84, DOI: <10.5334/gjgl.348>.

Clements, George N. 1975. The logophoric pronoun in Ewe: its role in discourse. *Journal of West African Languages* 10:141–177.

Cole, Peter, Gabriella Hermon, Yassir Tjung, Chang-Yong Sim & Chonghyuck Kim. 2007. *Anaphroric expressions in the peranakan javanese of semarang*. LINCOM Studies in Asian Linguistics 72, Münich: LINCOM.

Collins, Chris & Paul M. Postal. 2012. *Imposters: a study of pronominal agreement*. Cambridge, MA: MIT Press.

Coon, Jessica, Pedro Mateo Pedro & Omer Preminger. 2014. The role of case in a-bar extraction asymmetries: evidence from Mayan. *Linguistic Variation* 14:179–242, DOI: <10.1075/lv.14.2.01coo>.

Deal, Amy Rose. 2010. Ergative case and the transitive subject: a view from Nez Perce. *Natural Language & Linguistic Theory* 28:73–120, DOI: <10.1007/s11049-009-9081-5>.

Dowty, David R. & Pauline Jacobson. 1988. Agreement as a semantic phenomenon. In *Proceedings of the 5th Eastern States Conference on Linguistics (ESCOL 1)*, eds. Joyce Powers & Kenneth De Jong, Columbus, OH: Ohio State University, 95–108.

Elbourne, Paul D. 2013. *Definite descriptions*. Oxford: Oxford University Press.

Everaert, Martin. 1991. Nominative anaphors in Icelandic: morphology or syntax. In *Issues in Germanic syntax*, eds. Werner Abraham, Wim Kosmeijer & Eric Reuland, 277–305. Berlin: Mouton de Gruyter.

Frampton, John & Sam Gutmann. 2000. *Agreement is feature sharing*. Ms., Boston, MA: Northeastern University. URL: <mathserver.neu.edu/~ling/pdf/agrisfs.pdf>.

Frampton, John & Sam Gutmann. 2006. How sentences grow in the mind: agreement and selection in efficient minimalist syntax. In *Agreement systems*, ed. Cedric Boeckx, 121–157. Amsterdam: John Benjamins.

Franks, Steven L. 2013. Bulgarian *nego si* is a Balkan anaphor. *Linguistique Balkanique* 52:3–28.

Gazdar, Gerald, Ewan Klein, Geoffrey K. Pullum & Ivan A. Sag. 1985. *Generalized Phrase Structure Grammar*. Cambridge, MA: Harvard University Press.

Harðarson, Gísli Rúnar. 2016. A case for a Weak Case Contiguity hypothesis: a reply to Caha. *Natural Language & Linguistic Theory* 34:1329–1343, DOI: <10.1007/s11049-016-9328-x>.

Harris, Alice C. 1981. *Georgian syntax: a study in Relational Grammar*. Philadelphia, PA: John Benjamins.

Heinat, Fredrik. 2008. *Probes, pronouns and binding in the Minimalist Program*. Saarbrücken: VDM Verlag.

Holmberg, Anders & þorbjörg Hróarsdóttir. 2003. Agreement and movement in Icelandic raising constructions. *Lingua* 113:997–1019, DOI: <10.1016/S0024-3841(02)00162-6>.

Hornstein, Norbert. 2018. *Case and agreement in a corner of Icelandic*. Ms. URL: <https://ling.auf.net/lingbuzz/004273>.

Hubbard, Philip. 1985. *The syntax of the Albanian verb complex*. New York, NY: Garland Publishing.

Iatridou, Sabine. 1988. Clitics, anaphors, and a problem of coindexation. *Linguistic Inquiry* 19:698–703.

Keine, Stefan. 2017. Agreement and vP phases. In *A schrift to fest Kyle Johnson*, eds. Nicholas LaCara, Keir Moulton & Anne-Michelle Tessier, 177–185. Amherst, MA: University of Massachusetts Linguistics Open Access Publications, URL: <https://scholarworks.umass.edu/cgi/viewcontent.cgi?filename=19&article=1000&context=linguist_oapubs&type=additional>.

Keine, Stefan & Bhamati Dash. 2018. *The ups and downs of agreement*. Ms., Los Angeles, CA: University of Southern California.

Kratzer, Angelika. 2009. Making a pronoun: fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry* 40:187–237, DOI: <10.1162/ling.2009.40.2.187>.

Legate, Julie Anne. 2008. Morphological and abstract case. *Linguistic Inquiry* 39:55–101, DOI: <10.1162/ling.2008.39.1.55>.

Maling, Joan. 1984. Non-clause-bounded reflexives in Modern Icelandic. *Linguistics & Philosophy* 7:211–241, DOI: <10.1007/BF00627706>.

Marantz, Alec. 1991. Case and licensing. In *Proceedings of the 8th Eastern States Conference on Linguistics (ESCOL 8)*, eds. German Westphal, Benjamin Ao & Hee-Rahk Chae, Ithaca, NY: CLC Publications, 234–253.

Merchant, Jason. 2014. Gender mismatches under nominal ellipsis. *Lingua* 151:9–32, DOI: <10.1016/j.lingua.2014.01.008>.

Middleton, Jane. 2018. *Everyone left the room, except the logophor: *ABA patterns in pronominal morphology*. Paper presented at LinG1: Agreement and Anaphoricity, Göttingen.

Murugesan, Gurujegan. 2018. *Merge matters for AAE*. Paper presented at LinG1: Agreement and Anaphoricity, Göttingen.

Murugesan, Gurujegan. 2019. *Predicting the AAE and its violations*. Doctoral dissertation, Leipzig: Institut für Linguistik, Universität Leipzig.

Nevins, Andrew Ira. 2007. The representation of third person and its consequences for Person-Case effects. *Natural Language & Linguistic Theory* 25:273–313, DOI: <10.1007/s11049-006-9017-2>.

Pesetsky, David & Esther Torrego. 2007. The syntax of valuation and the interpretability of features. In *Phrasal and clausal architecture: syntactic derivation and interpretation, In honor of Joseph E. Emonds*, eds. Simin Karimi, Vida Samiian & Wendy Wilkins, 262–294. Amsterdam: John Benjamins.

Polinsky, Maria. 2003. Non-canonical agreement is canonical. *Transactions of the Philological Society* 101:279–312, DOI: <10.1111/1467-968X.00120>.

Polinsky, Maria & Omer Preminger. 2019. The *Agreement Theta Generalization*. *Glossa* 4:102, DOI: <10.5334/gjgl.936>.

Pollard, Carl & Ivan A. Sag. 1994. *Head-driven Phrase Structure Grammar*. Chicago, IL: University of Chicago Press.

Preminger, Omer. 2011a. *Agreement as a fallible operation*. Doctoral dissertation, Cambridge, MA: MIT.

Preminger, Omer. 2011b. Asymmetries between person and number in syntax: a commentary on Baker's SCOPA. *Natural Language & Linguistic Theory* 29:917–937, DOI: <10.1007/s11049-011-9155-z>.

Preminger, Omer. 2013. That's not how you agree: a reply to Zeijlstra. *The Linguistic Review* 30:491–500, DOI: <10.1515/tlr-2013-0015>.

Preminger, Omer. 2014. *Agreement and its failures*. Linguistic Inquiry Monographs 68, Cambridge, MA: MIT Press, DOI: <10.7551/mitpress/9780262027403.001.0001>.

Preminger, Omer. 2017. How can feature-sharing be asymmetric? Valuation as UNION over geometric feature structures. In *A Pesky Set: papers for David Pesetsky*, eds. Claire Halpert, Hadas Kotek & Coppe van Urk, 493–502. Cambridge, MA: MITWPL.

Preminger, Omer. 2019. What the PCC tells us about 'abstract' agreement, head movement, and locality. *Glossa* 4:13, DOI: <10.5334/gjgl.315>.

Preminger, Omer & Maria Polinsky. 2015. *Agreement and semantic concord: a spurious unification*. Ms. URL: <https://ling.auf.net/lingbuzz/002363>.

Reuland, Eric. 2011. *Anaphora and language design*. Cambridge, MA: MIT Press.

Rezac, Milan, Pablo Albizu & Ricardo Etxepare. 2014. The structural ergative of Basque and the theory of case. *Natural Language & Linguistic Theory* 32:1273–1330, DOI: <10.1007/s11049-014-9239-7>.

Rizzi, Luigi. 1990. On the Anaphor-Agreement Effect. *Rivista di Linguistica* 2:27–42.

Rizzi, Luigi. 2001. Relativized minimality effects. In *The handbook of contemporary syntactic theory*, eds. Mark R. Baltin & Chris Collins, 89–110. Oxford: Blackwell, DOI: <10.1002/9780470756416.ch4>.

Rooryck, Johan & Guido Vanden Wyngaerd. 2011. *Dissolving binding theory*. Oxford: Oxford University Press, DOI: <10.1093/acprof:oso/9780199691326.001.0001>.

Sells, Peter. 1987. Aspects of logophoricity. *Linguistic Inquiry* 18:445–481.

Shibatani, Masayoshi. 1977. Grammatical relations and surface cases. *Language* 53:789–807, DOI: <10.2307/412912>.

Smith, Peter W., Beata Moskal, Ting Xu, Jungmin Kang & Jonathan David Bobaljik. 2016. *Case and number suppletion in pronouns*. Ms. URL: <https://ling.auf.net/lingbuzz/003110>.

Starke, Michal. 2001. *Move dissolves into Merge: a theory of locality*. Doctoral dissertation, Geneva: University of Geneva. URL: <https://ling.auf.net/lingbuzz/000002>.

Sundaresan, Sandhya. 2016. Anaphor vs agreement: a new kind of Anaphor Agreement Effect in Tamil. In *The impact of pronominal form on interpretation*, eds. Patrick Grosz & Pritty Patel-Grosz, 77–106. Berlin: Mouton de Gruyter.

Sundaresan, Sandhya. 2018. Perspective is syntactic: evidence from anaphora. *Glossa* 3:128, DOI: <10.5334/gjgl.81>.

Taraldsen, Knut Tarald. 1995. On agreement and nominative objects in Icelandic. In *Studies in comparative Germanic syntax*, eds. Hubert Haider, Susan Olsen & Sten Vikner, 307–327. Dordrecht: Kluwer Academic Publishers.

Thráinsson, Höskuldur. 1979. *On complementation in Icelandic*. Outstanding Dissertations in Linguistics, New York, NY: Garland Publishing.

Thráinsson, Höskuldur. 1991. Long distance reflexives and the typology of NPs. In *Long distance anaphora*, eds. Jan Koster & Eric Reuland, 49–75. Cambridge: Cambridge University Press.

Thráinsson, Höskuldur. 1992. A note on underspecification and binding. In, Harvard Working Papers in Linguistics 1, 73–90. Cambridge, MA: Harvard University.

Thráinsson, Höskuldur. 2007. *The syntax of Icelandic*. Cambridge: Cambridge University Press.

Tucker, Matthew A. 2011. *On the derivation of the Anaphor Agreement Effect*. Ms., Santa Cruz, CA: University of California. URL: <https://matthew-tucker.github.io/files/papers/anaphor-agreement-effect.pdf>.

Woolford, Ellen. 1999. More on the Anaphor Agreement Effect. *Linguistic Inquiry* 30:257–287, DOI: <10.1162/002438999554057>.

Wurmbrand, Susi. 2017. Feature sharing or how I value my son. In *A Pesky Set: papers for David Pesetsky*, eds. Claire Halpert, Hadas Kotek & Coppe van Urk, 173–182. Cambridge, MA: MITWPL.

Yip, Moira, Joan Maling & Ray Jackendoff. 1987. Case in tiers. *Language* 63:217–250.

Yuan, Michelle. 2018. *Dimensions of ergativity in Inuit: theory and microvariation*. Doctoral dissertation, Cambridge, MA: MIT.

Zaenen, Annie, Joan Maling & Höskuldur Thráinsson. 1985. Case and grammatical functions: the Icelandic passive. *Natural Language & Linguistic Theory* 3:441–483.

Zeijlstra, Hedde. 2012. There is only one way to agree. *The Linguistic Review* 29:491–539, DOI: <10.1515/tlr-2012-0017>.

Zompí, Stanislao. 2016. *Case decomposition meets dependent-case theories*. Master's thesis, Università di Pisa.

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