"Non-local A-movement" is predicted to exist, and it does

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1 We should have expected this all along

1.1 Two pre-existing ingredients

The Featural Theory of the A/Ā-distinction

- The reason why "A-movement" is different from "Ā-movement" is not their landing site, but the **features** triggering the movement (van Urk 2015 et seq.)
- When the movement-triggering probe looks for…
  - ▷ **Φ-features ⟹ "A-movement"**
  - ▷ **Ā-features ⟹ "Ā-movement"**
- List elaborated from van Urk (2015: 23) and Richards 2014: 167–169

(1) **A-properties**:
   a. Strictly local
   b. Influences case and φ-agreement
   c. Restricted to nominals
   d. No Condition C reconstruction
   e. No Weak Crossover
   f. New binding antecedents
   g. Doesn't license parasitic gaps

(2) **Ā-properties**:
   a. Can skip nominals
   b. Doesn't influence case and φ-agr.
   c. Not restricted to nominals
   d. Reconstruction for Condition C
   e. Weak Crossover
   f. No new binding antecedents
   g. Licenses parasitic gaps

- **How the different properties follow from the featural distinction** (van Urk 2015):
  - ▷ **Locality**: every nominal has φ-features, so they will all intervene for each other; not every constituent has Ā-features, so a probe won't see the non-Ā-marked constituents on its way to the relevant one
  - ▷ **Feeds case and φ-agreement**: close relation between φ-probing and case assignment (Chomsky 2001, et seq.)
  - ▷ **Categorial restrictions**: A-movement is DP-only because only DPs have φ-features; any XP can have Ā-features
  - ▷ **Binding-theoretical properties** (Condition C, WCO, anaphor/variable binding, parasitic gaps): movement triggered by φ-agreement abstracts over *individuals*; movement triggered by Ā-features abstracts over *choice functions*

Relativized probes

- In the last 20+ years, rich literature about agreement patterns where **a probe is sensitive to certain specific φ-features**, rather than all φ-features in general
  - Only [PART] arguments, only [PL] arguments, only [PART, ADDR], etc.
  - Béjar (2003), Béjar & Rezac (2003, 2009), Nevins (2011), and Deal (2015, 2024a,b, to appear), among many many others
- Example from Chirag Dargwa (3): the probe on the verb specifically wants something with a [PART] feature
  - If the object is [PART] and the subject is 3rd person, the probe will agree with the object despite it being less local (3c)
  - In prose: "Agree with the closest [PART] constituent"

(3) **Omnivorous agreement for [PART]**: (Sumbatova 2011: 135) (Chirag Dargwa)

a. *dicce* {*ʃu* / *it*} *r-iqqan-da*
1SG.ERG 2SG.ABS 3SG.ABS F-lead-1
'I lead you/her'

b. *ʃicce* *du* *r-iqqan-de*
2SG.ERG 1SG.ABS F-lead-2
'You lead me'

c. *ite* *du* *r-iqqan-da*
3SG.ERG 1SG.ABS F-lead-1
'S/he leads me'

1.2 Combining the ingredients

- If…
  - 1) A-movement can only target the closest nominal because it's triggered by φ-probing, and all nominals have φ-features,
  - And, 2) φ-probing can be relativized to more specific features,
- Then we should expect **non-local A-movement**: a nominal further away is chosen for A-movement by a probe over a more local one
  - Restricted: this should only be possible if there is a featural reason to do so! It's just Relativized Minimality all along (Rizzi 1990)
- My claim: **this does exist**.
  - The nice thing about this talk: I could be completely wrong about my empirical data, but *this is still predicted to exist somewhere out there*. Go look!

1.3 Preview of the talk

- In Äiwoo, **movement to spec,TP** can target either the **subject** or the **object**
  - ▷ Pronouns ("π", abbreviated) and full DPs compete for movement to specTP
  - ▷ Pronouns are moved preferentially over full DPs, regardless of case/theta role/ grammatical relation/"licensing"
  - ▷ Whatever doesn't move, just stays in situ

(4) **Pronouns preferred for movement to spec,TP**:
a. π > DP: move **subj**
b. DP > π: move **obj**!
c. π > π: move **subj**
d. DP > DP: move **subj**

- ▷ "If there is a pronoun (4a,b), move that, regardless of where it is;
- ▷ If there are two pronouns (4c), move the closest one;
- ▷ If there are no pronouns (4d), ok, just move the highest thing then"

Claim: "Non-local A-movement" is possible

- A-movement does not need to be strictly local, and can potentially skip nominals
- Not unrestricted: there must be a featural reason to do so

2 Non-local "A-movement" in Äiwoo

2.1 Setting the stage

- Äiwoo (Oceanic; Solomon Islands): Austronesian voice system, strict **V2** word order (≈ Dinka; van Urk 2015), but **complex word order alternations** in Undergoer Voice
  - ▷ Almost only descriptive literature: Næss (2006, 2015, 2021), a.o.
- What matters for today: there are **3 argument "slots"**

(5) *täpilo enge* *i-ngä* *Anna*=*to*=*waa*=*kä* *sii*
bowl this ASP-eat Anna=PRF=FUT=CV fish
'Anna will have eaten (the) fish in this bowl'

- General template: [$_{CP}$ ▢ V [$_{TP}$ ▢=TAM [$_{vP}$ ▢ (...adjuncts...)
  - ▷ Ask me why I think these are ≈ correct labels for these positions
  - ▷ Today we're focusing on **the slot between the verb and the TAM particles**, that I label **spec,TP**. We're mostly gonna ignore the rest. Ask me about it!
  - ▷ Glosses: "MIN/AUG" ≈ SG/PL; "12" = first person inclusive ("1st + 2nd person")

- **Caveat**: a white lie/simplifying assumption
  - In this presentation I talk about **full lexical DPs vs. pronouns**
  - This is a simplification: in reality, the cut goes between {lexical DPs *and* 3MIN *pronouns*} vs. {*non-*3MIN pronouns}
    - Very clearly about φ-features!
  - I will use the DP vs. pronoun distinction for ease of exposition, and **ignore 3MIN pronouns. The argument will still hold in the same way.**
  - In Appendix A you can see the full rehashed implementation, taking care of this wrinkle and another particular effect we see in 1 > 2 combinations

2.2 Three possible word orders

- What about normal transitive clauses, with 2 **arguments? Three possible patterns**: (these are not free alternatives, only one of them will be ✓ for any given sentence)

(6) a. O V S=TAM
b. O V O=TAM S
c. S V S=TAM O

- Here are the three patterns, with a concrete minimal set ((7a,b) are the same pattern):

(7) a. ***John*** *ku-potaa* ***Mary***=*kaa*[1] = (6a)
John IPFV-search.UV **Mary**=FUT
'Mary will look for John'

b. ***John*** *ku-potaa-****mu***=*waa* = (6a)
John IPFV-search.UV-**2MIN**=FUT
'You will look for John'

c. (***iumu***) *ku-potaa-****gu-mu***=*waa* ***Mary*** = (6b)
2MIN IPFV-search.UV-**OBJ-2MIN**=FUT **Mary**
'Mary will look for you'

d. (***iumu***) *ku-potaa-****mu***=*waa* ***iu*** = (6c)
2MIN IPFV-search.UV-**2MIN**=FUT **1MIN**
'You will look for me'

- Any argument in spec,CP (the preverbal position) can and most often will be dropped, but can also be pronounced overtly if desired

- The suffixal φ-markers in spec,TP (7c,d) *cannot* be dropped, even if you pronounce the full pronoun overtly in spec,CP

1 The future marker is =C*aa*, with the first consonant depending on what's immediately to its left. The default exponent is *=kaa*, but it can also surface as *=waa*, *=naa*, *=ngaa*, *=laa*, and *=aa*.

2.3 The stuff between V and =TAM is a real argument

- I promised you that you'd see an argument between the verb and the =TAM particles, but in (7b–d) you see just some suffixal φ-markers. Are we so sure?
- Claim: the suffixal φ-markers in that position are a spell-out of **an actual pronoun occupying spec,TP**. They're not agreement, and not "clitics" (= a head attached to a functional projection)
- **Argument 1**: this position can host something that is clearly a (non-pronominal) argument, aka a full DP (7a). Therefore, this must be a **specifier position**.
  - ▷ A DP in this position can be arbitrarily long, cf. this naturally attested example with a DP containing a full relative clause:

(8) *ngaama lâ ba i-kää* **[*me*=[$_{RC}$ *ki-tokoli-woli-mä* *ngä* *botu*]]**=*gu*=*nâ*
if DIST NEG ASP-know.UV **REL:person=IPFV-sit-down-DIR1** **in** **boat**=NEG=DIST
'If the person sitting in the boat doesn't know (it), …'

- **Argument 2**: the suffixal φ-markers are incompatible with an overt DP in that same position. You can have one or the other, but not both:

(9) **Complementarity between a pronominal suffix and a lexical DP in spec,TP:**

a. ***John*** *ku-potaa* ***mikilitei***=*kaa*
John IPFV-search.UV **fishermen**=FUT
'The fishermen will look for John'

b. ***John*** *ku-potaa-**i***=*laa*
John IPFV-search.UV-**3AUG**=FUT
'They will look for John'

c. * ***John*** *ku-potaa-**i*** ***mikilitei***=*kaa*
John IPFV-search.UV-**3AUG** **fishermen**=FUT

- ▷ The impossibility of co-occurrence of the suffix *-i* and the DP *mikilitei* 'fishermen' tells us this is not your usual agreement, but something pronominal
- ▷ Difference from the Irish/Celtic pattern (McCloskey & Hale 1984 et seq.): the **complementarity holds even between different arguments**
- ▷ If the object is a suffix in this position, the subject must remain low (10). Syntactically, it's as if the object is "taking up" this slot.

(10) (***iumu***) *ku-potaa-**gu-mu***=*waa* ***Mary***
2MIN IPFV-search.UV-**OBJ-2MIN**=FUT **Mary**
'Mary will look for you'

- ▷ It's as if in Romance, cliticization of the object would prevent subject movement to spec,TP. This is not how it works for Romance clitics at all!

- **Argument 3**: The only time we see "doubling", aka both a suffixal marker in this position and an overt argument, the overt argument is *somewhere else*, when the same argument occupies both this position and the preverbal one (7c,d)/(10)
  - ▷ I think the best way to make sense of this is to just say that the suffix in spec,TP is simply an obligatory **spell-out of a lower copy of movement**
  - ▷ Do we ever see other lower copy spell-outs in the language? Yes! In the "default" O V S=TAM pattern, if the object DP is plural we can optionally realize its plural feature down below in the base-generated position of the object, in the form of a pronoun:

(11) ***pedevalili*** *ku-potaa-**de**=ngaa* **(*ijii*)**
children IPFV-search.UV-**12AUG**=FUT **3AUG**
'We will look for the children' (*ijii* is optional)

MOVEMENTS I ASSUME, SPELLED OUT CONCRETELY:

(12)
a. [CP O V [TP S =TAM [vP ▢ ▢
b. [CP O V [TP O =TAM [vP S ▢ ✓!
c. [CP S V [TP S =TAM [vP ▢ O

- ▷ (I will only talk about the movements to spec,TP, ignoring what moves to spec,CP. Ask me in the breaks!)

2.4 GETTING THE MORPHOLOGY RIGHT

- If the things in specTP are real pronouns, why do they look like suffixes and not like the full pronouns you find elsewhere? We just have to say it's morphology.
  - ▷ See Akkuş et al. (2024) for a monograph-length argument that this is *not* a bad thing: syntax ≠ morphophonology! Also Yuan (2021), a.o.
- Pronouns have a default "full" form and a smaller, affixal one, that is found in this context: conditioned allomorphy
  - ▷ The morpheme *-gu* only ever shows up when the object, rather than the subject, is in this position. Only "case" difference in the whole language

(13) a. [2MIN, ACC] ⇔ *-gu-mu* / V __
b. [2MIN] ⇔ *-mu* / V __
c. [2MIN] ⇔ *iumu* (elsewhere)

- Supporting evidence: we also find this shorter suffixal form when a pronoun is the complement of a preposition (14b); the full pronoun is impossible (14c)
  - ▷ There's nothing *syntactically* different between 'John' in (14a) and the pronoun in (14b), so the difference must be morphological

(14) a. *ngâgo Ɉohn*
PREP John
'To/for John'

b. *ngâgu-**mu***
PREP-2MIN
'To/for you'

c. **ngâg{o/u}* ***iumu***
PREP 2MIN
'To/for you'

- Amending the VI rules:

(15) a. [2MIN] ⇔ *-mu* / {V, P} _
b. [2MIN] ⇔ *iumu* (elsewhere)

- See Appendix B for more details about the morphology of pronouns in Äiwoo

3 What moves to spec,TP?

- What determines what pattern we get in any sentence? Whether the **arguments are DPs or pronouns**. The full distribution again (just reordered):

(16) a. ***John*** *ku-potaa-**mu**=waa* π > DP
John IPFV-search.UV-2MIN=FUT
'You will look for John'

b. (***iumu***) *ku-potaa-**gu-mu**=waa* ***Mary*** DP > π
2MIN IPFV-search.UV-OBJ-2MIN=FUT **Mary**
'Mary will look for you'

c. (***iumu***) *ku-potaa-**mu**=waa* ***iu*** π > π
2MIN IPFV-search.UV-2MIN=FUT **1MIN**
'You will look for me'

d. ***John*** *ku-potaa* ***Mary***=*kaa* DP > DP
John IPFV-search.UV **Mary**=FUT
'Mary will look for John'

- In prose: 'Move the closest pronoun. If there's none, just move the closest nominal'. This is a typical "omnivorous"/"picky probing" pattern!

Summary: pronoun-preference movement to spec,TP

(17) a. [TP **π** =TAM [*v*P ◯ **DP**

b. [TP **π** =TAM [*v*P **DP** ◯ ✓!

c. [TP **π** =TAM [*v*P ◯ **π**

d. [TP **DP** =TAM [*v*P ◯ **DP**

- What T is **not** doing:
  - Case discrimination: it can move any argument, not only NOM or only ACC
  - "Licensing": either argument can remain low, if T moves something else

3.1 Is this really A-movement?

- Let's revisit our chart of the differences between A/Ā-movement, assigning scores. The grayed-out lines are untestable/uninformative
  - Äiwoo doesn't have any agreement in T nor any case morphology (apart from *-gu* on object pronouns in spec,TP, see above)
  - The moved argument is very often a pronoun, which makes it impossible to test Condition C reconstruction (I can't put an R-expression inside a pronoun). Same problem for binding antecedents
  - I have no idea how parasitic gaps work in this language, if they even exist

(18) **A-properties:**

a. Strictly local
b. Influences case/φ-agreement
c. ✓ Restricted to nominals
d. No Condition C reconstruction
e. ✓ No Weak Crossover
f. New binding antecedents
g. Doesn't license parasitic gaps

(19) **Ā-properties:**

a. ✓ Can skip nominals
b. Doesn't influence case/φ-agree.
c. Not restricted to nominals
d. Reconstruction for Condition C
e. Weak Crossover
f. No new binding antecedents
g. Licenses parasitic gaps

- Locality and category;
  - We have seen that movement to spec,TP can skip nominals (the object can move across the subject)
  - Also, it is clearly restricted to nominals: no other category can ever move to spec,TP in Äiwoo

- Testable: movement to spec,TP doesn't induce a **Weak Crossover** violation (20)

(20) [Context: we are talking about a group of girls who are coming back from a long trip, and their mothers are missing them very much.]

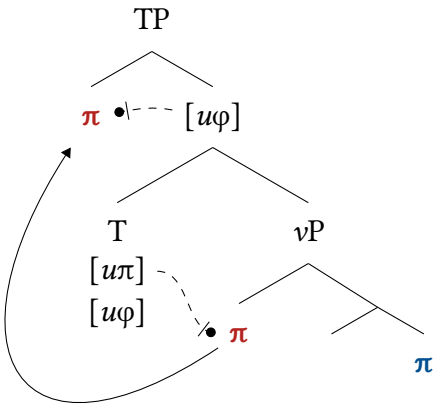
ijidui *ki-te-usi-kä-**gu-i**=laa* ***isä-i*** t_{Obj}
3AUG.all IPFV-see.UV-again.UV-DIR3-OBJ-3AUG=FUT mother-3AUG
✓ **Bound reading**: ∀*x*, *x*'s mother will see *x* again
≈ 'Her$_i$ mother will see every one$_i$ of them again'

- **Score: 2-1 for A-movement**
  - ▷ More seriously: at least for what we can test, the only Ā-style property of this movement is the locality profile, which has an independent featural justification (see implementation below)
  - ▷ "Mixed A/Ā-movement" would be misleading or at best uninformative

3.2 An implementation

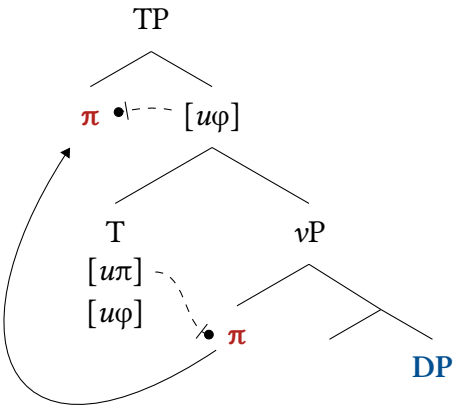
- Assumption: both DPs and pronouns have [φ]; pronouns also have a feature [π] (Sichel & Toosarvandani 2024, a.o.)
- Here I am using the probe notation [*u*F] because it's simplest
  - ▷ The full/unsimplified system, discussed in Appendix A, will actually need the interaction/satisfaction model of Agree (Deal 2015, 2024a, to appear), but for now we don't need it
- We need to derive a **"Plan A/Plan B" logic**: T prefers to move a pronoun, but it will backtrack to moving a DP if it can't find a pronoun
- T has two ordered probes: the first one wants to move pronouns ("π-probe", [*u*π]), and the second one wants to move anything with [φ] ("φ-probe", [*u*φ])
- If the π-probe finds and moves something, the φ-probe is automatically also checked off. How?
  - ▷ "Multitasking" (van Urk & Richards 2015). **Implementation from Scott (2021)**:
  - ▷ If the π-probe finds and moves something, the φ-probe reprojects to the bar level (per Cyclic Agree terms and conditions; Béjar & Rezac 2009).
  - ▷ Now the closest thing in its c-command domain is its sister node, aka, the moved goal of the π-probe in specTP
  - ▷ The features of the π-probe goals (pronouns) are a proper superset of the features of the φ-probe goals (any nominals), so anything moved by the π-probe will automatically also check off the φ-probe
- Note: this is just a particular *implementation* of the idea of Multitasking
  - ▷ "Isn't this just a restatement of the facts?" Yes, pretty much, but it's a restatement clever enough that it doesn't add any new mechanisms to the theory than the ones we already independently need (Cyclic Agree, Bare Phrase Structure, ordered probes)
  - ▷ If you prefer Multitasking, where a probe can compare two equidistant goals and evaluate what the most appropriate goal is (or other mechanisms yet), be my guest

(21) a. **π > π: move subject**



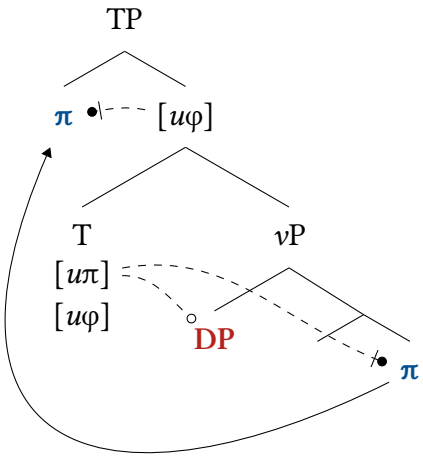
▷ π-probe. Check S: does it have [π]?
Yes. Move S. Stop.
▷ φ-probe. Check S: does it have [D]?
Yes. (Move S vacuously.) Stop.

b. **π > DP: move subject**



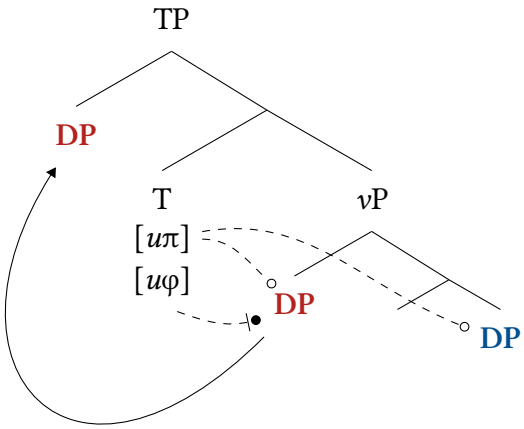
▷ π-probe. Check S: does it have [π]?
Yes. Move S. Stop.
▷ φ-probe. Check S: does it have [D]?
Yes. (Move S vacuously.) Stop.

c. **DP > π: move object**



▷ π-probe. Check S: does it have [π]? No.
Check O: does it have [π]? Yes.
Move O. Stop.
▷ φ-probe. Check O: does it have [D]? Yes.
(Move O vacuously.) Stop.

d. **DP > DP: move subject**



▷ π-probe. Check S: does it have [π]? No.
Check O: does it have [π]? No.
(Do nothing.) Stop.
▷ φ-probe. Check S: does it have [D]? Yes.
Move S. Stop.

4 Conclusion

- Our theory predicted an as-yet unattested type of movement to be possible:
  - ▷ All the case/agreement-properties, category restrictions, and binding-theoretical properties typical of A-movement
  - ▷ *But*, able to skip some nominals as long as there's some kind of featural reason
- Äiwoo confirms our (unnoticed?) prediction: this kind of movement does exist
- Supporting argument for the featural theory of the A/Ā-distinction!
  - ▷ "Strictly local" is not a defining property of "A-movement", and "not strictly local" is not a defining property of "Ā-movement". Both types of locality profile are just epiphenomenal (van Urk 2015)
  - ▷ It just so happens that most cases of A-movement are triggered by a flat φ-probe, so every nominal will be a potential valid goal and thereby intervener

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A The full, unsimplified system

A.1 Types of clauses and their distribution

- Undergoer Voice (UV) clauses in Äiwoo come in one of **four** different word orders, depending on the φ-features of both arguments
  - ▷ The one I didn't talk about in the main talk is "$UV_{1>2}$" (22e)

(22) a. **UV_{plain}**:
John *ku-tu-usi-kä* *Mary*=*kaa* *ngä* *party*
John IPFV-bring.UV-back.UV-DIR3 Mary=FUT to party
'Mary will bring John back to the party'

b. **UV_{plain}**:
John *ku-tu-usi-kâ-**mu***=*waa* *ngä* *party*
John IPFV-bring.UV-back.UV-DIR3-2MIN=FUT to party
'You will bring John back to the party'

c. **UV_{gu}**:
(*iumu*) *ku-tu-usi-kâ-**gu-mu***=*waa* *John* *ngä* *party*
2MIN IPFV-bring.UV-back.UV-DIR3-OBJ-2MIN=FUT John to party
'John will bring you back to the party'

d. **UV_{SVO}**:
(*iumu*) *ku-tu-usi-kâ-**mu***=*waa* *iu* *ngä* *party*
2MIN IPFV-bring.UV-back.UV-DIR3-2MIN=FUT 1MIN to party
'You will bring me back to the party'

e. **$UV_{1>2}$**:
(*iu*) *ku-tu-usi-kä-**nee-mu***=*waa* *ngä* *party*
1MIN IPFV-bring.UV-back.UV-DIR3-1MIN-2MIN=FUT to party
'I will bring you back to the party'

- The word order and distribution of the different clause types are shown in (23)–(24).

(23) **Word order overview of UV clause types:**

	"UV_{plain}"	"UV_{gu}"	"UV_{SVO}"	"$UV_{1>2}$"
Word order:	(O) V S=TAM	(O) V-*gu*-π_O=TAM S	(S) V-π_S=TAM O	(S) V-π_S-π_O=TAM
*v*P:	nothing	Subj	Obj	nothing
Spec,TP:	Subj	Obj	Subj	Subj & Obj
Spec,CP:	Obj	Obj	Subj	Subj

(24) **Distribution of UV clause types:**

S↓, O→	1	12	2	3AUG$_\pi$	3MIN$_\pi$	DP
1	—	—	$UV_{1>2}$	UV_{SVO}	UV_{plain}	UV_{plain}
12	—	—	—	UV_{SVO}	UV_{plain}	UV_{plain}
2	UV_{SVO}	—	—	UV_{SVO}	UV_{plain}	UV_{plain}
3AUG$_\pi$	UV_{SVO}	UV_{SVO}	UV_{SVO}	UV_{SVO}	UV_{plain}	UV_{plain}
3MIN$_\pi$	UV_{gu}	UV_{gu}	UV_{gu}	UV_{gu}	UV_{plain}	UV_{plain}
DP	UV_{gu}	UV_{gu}	UV_{gu}	UV_{gu}	UV_{plain}	UV_{plain}

▷ I am excluding here reflexive combinations (1 > 1, 2 > 2) and combinations with overlapping reference ({1/2} > 12, 12 > {1/2}). All 3 > 3 combinations are intended as non-reflexive

► What is interesting to us in this respect is **what moves to spec,TP**, given what the subject and the object are. Same table as in (24), but with this information instead:

(25) **Complete overview of what moves to spec,TP:**

S↓, O→	1	12	2	3AUG$_\pi$	3MIN$_\pi$	DP
1	—	—	S+O	S	S	S
12	—	—	—	S	S	S
2	S	—	—	S	S	S
3AUG$_\pi$	S	S	S	S	S	S
3MIN$_\pi$	O	O	O	O	S	S
DP	O	O	O	O	S	S

► Note: our generalization of "Move the highest pronoun; only move a DP if there is no pronoun" was *almost* right.

A.2 Modelling the hierarchy effect

► We can see a clear **hierarchy effect**:

▷ If the subject has marked φ-features (non-3MIN), move it (top <of the table).

▷ If the subject was 1st person: if the object is 2nd person, move that too; else stop

▷ If the subject does not have marked φ-features (3MIN pronoun, or lexical DP):

▷ Does the object have marked φ-features? If so, move it (bottom left corner)

▷ Else, backtrack and move the subject

► We need a slightly non-standard featural assumption: 3rd person *is* a person feature (following Grishin 2023, contra Harley & Ritter 2002 et seq.)

- ▷ We need to be able to single out the set "non-3MIN": the only possibility is an ugly disjunction [PART or 3AUG]
- ▷ Just "[PART or AUG]" won't work, because it would group *all* plural forms in the same way, while we want 1AUG to pattern with 1MIN

► Here I'm writing it down as "PART" vs "3", but one could also do [±PART]

(26) **Featural breakdown**:

1MIN	[φ, PART]	**1AUG**	[φ, PART, AUG]
12MIN	[φ, PART, ADDR, SPKR]	**12AUG**	[φ, PART, ADDR, SPKR, AUG]
2MIN	[φ, PART, ADDR]	**2AUG**	[φ, PART, ADDR, AUG]
3MIN	[φ, 3]	**3AUG**	[φ, 3, AUG]
DP	[φ]		

► Then, we need to revise our probing system ever so slightly, making it more complex

- ▷ Now we need the INT/SAT model of Agree (Deal 2015, 2024a, to appear).

► Some notational/implementational remarks:

- ▷ F↑: "dynamic interaction" (Deal 2024a). Upon agree with something that carries a feature [F], copy [F] onto the interaction condition of the probe. In prose: "if you agree with a goal with [F], only keep agreeing with other goals if they also have [F]".
  - ▷ Note: logically, [[P ∨ Q] ∧ P] = [P]
  - ▷ After dynamic interaction: [INT: [PART or 3AUG]^{M}] ⟹ [INT: [PART]^{M}]
- ▷ F^{M}: if you interact with/are satisfied by a goal with feature [F], move it. (Basically, EPP)

► The only thing that will change is the first probe. Instead of [$u\pi$], we need this ugliness: **[INT: [PART↑ or 3AUG]^{M}; SAT: [ADDR or 3AUG]]**

► The full algorithm is given in (27)

- ▷ Note: I exclude combinations of subjects and objects with identical reference (1 > 1, 2 > 2) or overlapping ({1/2} > 12, 12 > {1/2})
- ▷ Btw: this supersedes the account in Roversi (2020), which was based on a faulty empirical generalization

(27) **Full algorithm for T probing:**

- ► **Plan A probe.** If subject has [3AUG]:
  - ▷ Interact with subject, move subject, halt (SAT!)

S↓, O→	1	12	2	$3AUG_\pi$	$3MIN_\pi$	DP	
1	–	–	S+O	S	S	S	
12	–	–	–	S	S	S	
2	S	–	–	S	S	S	
$3AUG_\pi$	S	S	S	S	S	S	✓
$3MIN_\pi$	O	O	O	O	S	S	
DP	O	O	O	O	S	S	

- ► Else, if subject has [PART] (S ∈ {{1/12/2}MIN, {1/12/2}AUG})
  - ▷ Interact with subject, move subject
  - ▷ Dynamic interaction: copy [PART] onto the INT condition
  - ▷ If subject has [ADDR]: (S ∈ {{12/2}MIN, {12/2}AUG})
    - ▷ Halt (SAT!)

S↓, O→	1	12	2	$3AUG_\pi$	$3MIN_\pi$	DP	
1	–	–	S+O	S	S	S	
12	–	–	–	S	S	S	✓
2	S	–	–	S	S	S	
$3AUG_\pi$	S	S	S	S	S	S	
$3MIN_\pi$	O	O	O	O	S	S	
DP	O	O	O	O	S	S	

  - ▷ Else: (S ∈ 1MIN, 1AUG)
    - ▷ If object has [PART]: (O ∈ {2MIN, 2AUG})
      - ▷ Interact with object, move object, halt (SAT!)
    - ▷ Else: (O ∈ {3AUG.pro, 3MIN.pro, DP})
      - ▷ Halt (end of c-command domain)

S↓, O→	1	12	2	$3AUG_\pi$	$3MIN_\pi$	DP	
1	–	–✓	S+O	S	S	S	✓
12	–	–	–	S	S	S	
2	S	–	–	S	S	S	
$3AUG_\pi$	S	S	S	S	S	S	
$3MIN_\pi$	O	O	O	O	S	S	
DP	O	O	O	O	S	S	

- ► Else, if subject has neither [PART] nor [3AUG] (S ∈ {3MIN.pro, DP}):
  - ▷ If object has [PART] or [3AUG]:
    - ▷ Interact with object, move object, halt (end of c-command domain)
  - ▷ Else: (O ∈ {3MIN.pro, DP})
    - ▷ Don't interact with anything, halt (end of c-command domain)

S↓, O→	1	12	2	3AUG$_\pi$	3MIN$_\pi$	DP
1	–	–	S+O	S	S	S
12	–	–	–	S	S	S
2	S	–	–	S	S	S
3AUG$_\pi$	S	S	S	S	S	S
3MIN$_\pi$	O	O	O	O	S	S
DP	O	O	O	O	S	S

✓

- ► **Plan B-probe.** If Plan A-probe moved any nominal:
  - ▷ Interact with that nominal, halt (SAT!)
    (= don't do anything)
- ► Else, if Plan A-probe did not move anything:
  - ▷ If subject has [phi]: interact with subject, move subject, halt (SAT!)

S↓, O→	1	12	2	3AUG$_\pi$	3MIN$_\pi$	DP
1	–	–	S+O	S	S	S
12	–	–	–	S	S	S
2	S	–	–	S	S	S
3AUG$_\pi$	S	S	S	S	S	S
3MIN$_\pi$	O	O	O	O	S	S
DP	O	O	O	O	S	S

✓

B The morphology of Äiwoo pronouns

- ► My claim is that all the boxed things in (28) are **pronouns**. How does it work?

(28) a. *Mary ku-potaa-**mu**=waa*
Mary IPFV-search.UV-2MIN=FUT
'You will look for Mary'

b. (***iumu***) *ku-potaa-**gu-mu**=waa* *Mary*
2MIN IPFV-search.UV-OBJ-2MIN=FUT Mary
'Mary will look for you'

c. (***ijii***) *ku-potaa-**i**=laa* ***iumu***
3AUG IPFV-search.UV-3AUG=FUT 2MIN
'They will look for you'

d. *ngâgu-**mu***
to-2MIN
'To you'

- ► Idea: pronouns come in two forms, long and short
  - ▷ The short form is found immediately after a verb or a preposition
  - ▷ Otherwise, we find the long form

B.1 The syntactic structure of Äiwoo pronouns

- The full forms of pronouns are **bimorphemic**: a "stem" *i~iu-* and the same suffixal paradigm we find attached to verbs and prepositions

(29)

	Pronoun	Suffix		Pronoun	Suffix
1MIN	*iu*	*-no*	1AUG	*iu-ngo(pu)*	*-ngo(pu)*
12MIN	*iu-ji*	*-ji*	12AUG	*iu-de*	*-de*
2MIN	*iu-mu*	*-mu*	2AUG	*i-mi*	*-mi*
3MIN	*inâ/ine*	*-*$\varnothing^{n}$	3AUG	*iji-i*	*-i*

  - ▷ Only exception: 1MIN *iu* vs. *-no* (I just have to treat this as idiosyncratic)
  - ▷ 3AUG also has a different base, *iji-* (see (30) for why I'm segmenting it this way)
  - ▷ 3MIN "$\varnothing^{n}$": the suffix itself is segmentally null, but if followed by =C*aa* FUT, =C*ä* CV, =C*â*/C*e* DIST/PROX, these must take their n-initial form
  - ▷ *inâ/ine*: *i-*$\varnothing^{n}$*=nâ/ne* 'PRON-3MIN=DIST/PROX'

- Evidence for segmentation: you can put stuff in between the two parts

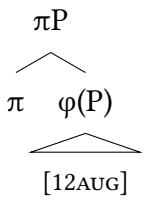
(30)

1AUG	*iu-**du**-ngopu*	PRON-**all**-3AUG	'All of us.EXCL'
12AUG	*iu-**du**-de*	PRON-**all**-12AUG	'All of us.INCL'
2AUG	*iu-**du**-mi*	PRON-**all**-2AUG	'All of y'all'
3AUG	*iji-**du**-i*	PRON-**all**-3AUG	'All of them'

  - ▷ Note: 2AUG ***i**-mi* vs. ***iu**-du-mi* is just regular phonology

- **Analysis: pronouns have two structural layers** (31)
  - ▷ The φ-features have a constant spell-out, e.g. *-de* for 12AUG (31a) (the only exception is 1MIN, which has a couple different allomorphs)
  - ▷ The π head is spelled out as *i~iu-* when word-initial, and null otherwise (31b)
    - ▷ We also need to take care of it becoming *-gu* when accusative and non-word-initial, which might be hard?)

(31) **Syntactic structure of Äiwoo pronouns**:



a. [12AUG] ⇔ *-de*

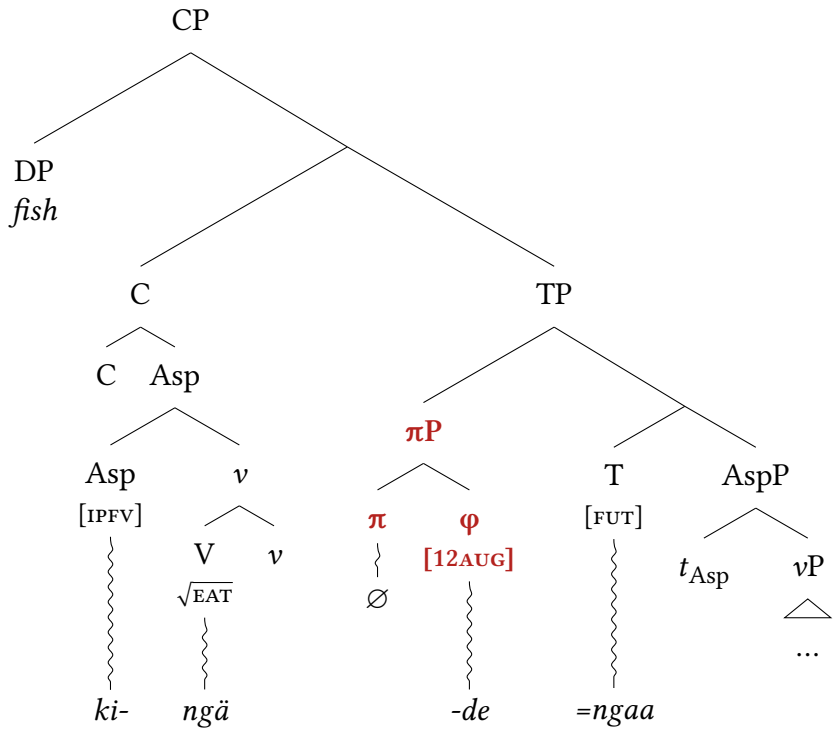
b. π ⇔ *i(u)-* / # __
π ⇔ ∅ (elsewhere)
($\pi_{[ACC]}$ ⇔ *-gu* / non-word-initial??)

B.2 Spelling out pronouns: mapping syntax to morphology

- The structure and VI rules in (31) are meant to cover, for example, UV_{plain} cases, where a pronominal subject is in spec,TP:

(32) a. *sii* *ki-ngä-de=ngaa*
fish IPFV-eat.UV-12AUG=FUT
'We.INCL will eat the fish'

b.



- Do we know that the πP or its spell-out *-de* is actually part of the same phonological word as the verb?
  - ▷ Yes: it changes stress (33), and can trigger vowel harmony (not shown here)

(33) **Trochaic stress, from the right:**

a. /kje(pávi) (méri)/
ki-epavi *Mary*
IPFV-cook.UV Mary
'Mary is cooking'

b. /(kjèpa)(vímu)/
ki-epavi-mu
IPFV-cook.UV-2MIN
'You are cooking'

- Problem: why can't the whole πP be spelled out as its own phonological word?
  - ▷ I.e.: how does π know that it's not word-initial, and therefore must use the null allomorph?

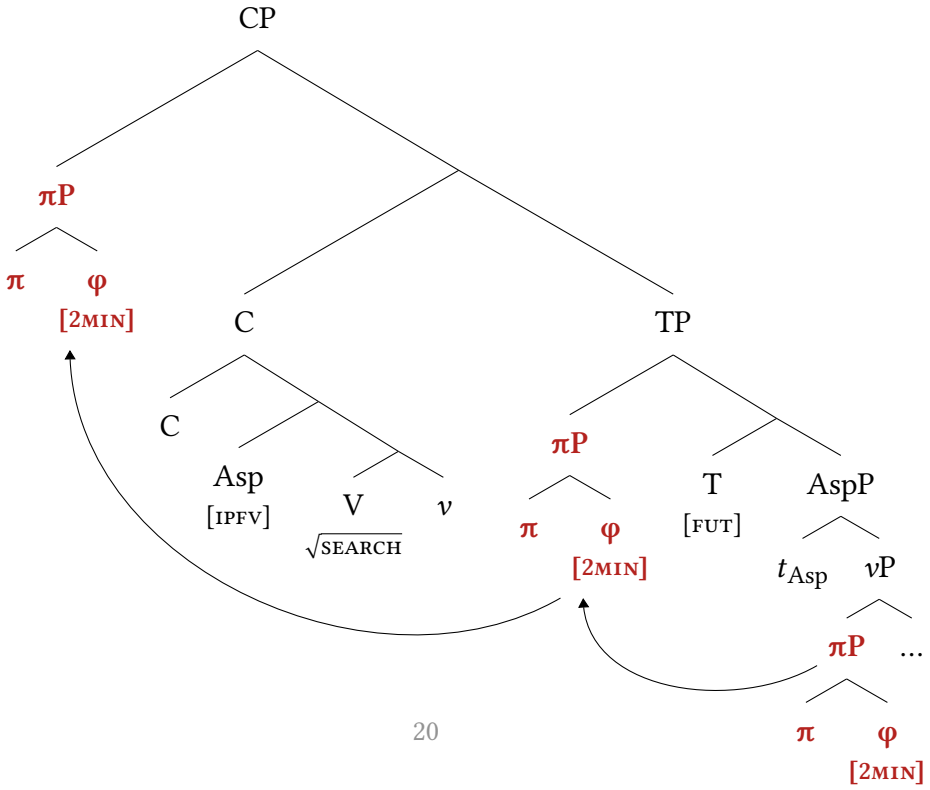
- An idea to deal with all of this might come from those cases where the same argument is both in spec,TP and spec,CP, but the TP-copy *must* be realized:
  - UV_{gu} for objects (34a), UV_{SVO} for subjects (34b)
  - Note that the highest copy in spec,CP is always optional, and the lowest copy (in the *v*P) domain is never spelled out (unless it's the only instance of something that has never moved, like the object in (34b))

(34) a. (***iumu***) *ku-potaa-***(gu-mu)**=waa* *John* t_O
2MIN IPFV-search.UV-*(OBJ-2MIN)=FUT John
'John will look for you'

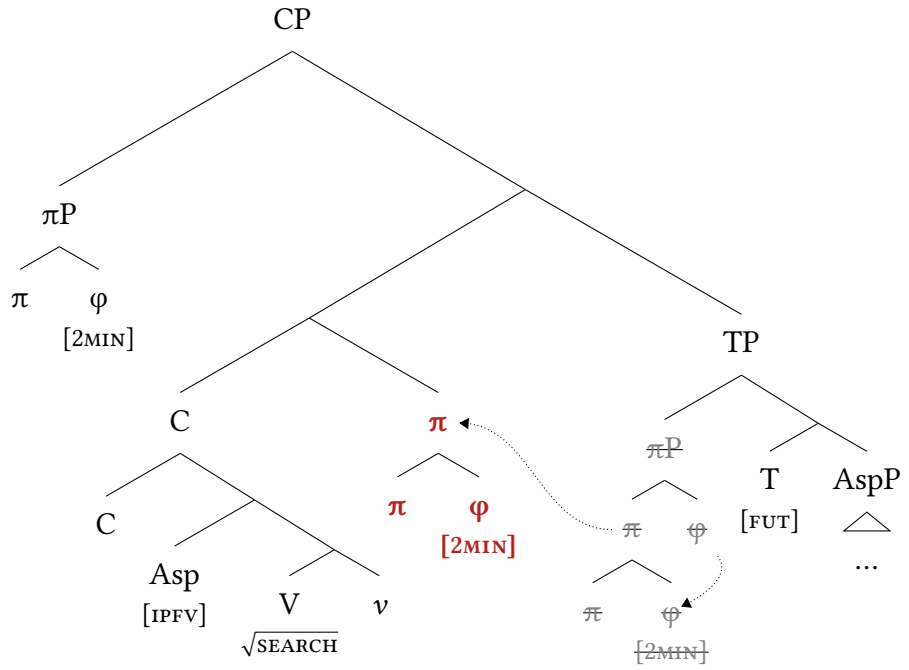
b. (***iumu***) *ku-potaa-***(mu)**=waa* t_S *iu*
2MIN IPFV-search-2MIN=FUT 1MIN
'You will look for us'

- Why is the spec,TP copy obligatorily realized, when this pronoun then moves up?
- Idea (stipulation): the π head has a requirement of becoming part of a larger phonological word if it can, attaching leftward
  - Morphological m-merger (Matushansky 2006), + Stray Affix Filter makes the spell-out of this "trace" obligatory (Yuan 2025)
  - What we need: φ undergoes m-merger onto π, and then π onto C

(35) a. **Before m-merger**:



b. **After m-merger:**



- Steps:
  - ▷ First, the φ head m-merges with the π head
  - ▷ Then, the complex π head m-merges with C
- Note: m-merger is postsyntactic, so after it takes place there really is no trace in spec,TP anymore, I'm just striking out that copy for clarity
- Now, the π+φ head is *not* a trace, and because of the Stray Affix Filter it must be spelled out, with π getting the correct null allomorph
- Why can't m-merger happen in spec,CP (and for a pronoun that's remained in situ in the *v*P, e.g. the object pronoun in (34b))?
  - ▷ For the spec,CP one: there's nothing to its left for it to lean on?
  - ▷ For the one in spec,*v*P: it could in principle m-merge with T, but maybe the lower phase is spelled out on its own and that's why it can't?