

Contingent either way: Differences in composite A'/A probing

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Roadmap

- The A'/A distinction
 - Positions vs. features
 - Composite A'/A probes
- **Empirical:** Two types of composite A'/A probes
 - Differences in A-Minimality, partly fitting goals
 - Conjunctive vs. dependent probes
- **Theoretical:** Implementation of composite probes
 - Contingent probing [Branan 2022]
- Conclusion

The A'/A distinction

• A'-movement

- (1) a. **Who** did he think *t* would win?
Wh-movement [Baltin 2001: 226]
- b. **These people**, I have never seen *t* before.
Topicalization [van Urk 2015: 16]
- c. This is **the girl** who the painter portrayed *t*.
Relativization [Siemund 2013: 261]

• A-movement

- (2) a. **John** seems *t* to be polite.
Raising [Baltin 2001: 226]
- b. **John** was murdered *t*.
Passivization [Baltin 2001: 226]

The A'/A distinction

A-movement	A'-movement
<i>Head movement</i> <i>Passivization</i> <i>Raising</i>	<i>Wh-movement/Focalization</i> <i>Topicalization</i> <i>Relativization</i>
local associated with ϕ -Agreement/ Case restricted to nominals no reconstruction for principle C no WCO effects no parasitic gap licensing no interpretational restriction	long-distance not associated with ϕ -Agreement/ Case not restricted reconstruction for principle C WCO effects parasitic gap licensing discourse-dependent interpretation

Table: A'- vs. A-properties [van Urk 2015: 23]

Structural vs. featural perception

- **Structural perception (traditional)** [Chomsky 1973, *et seq*]
 - A'-movement targets a non-argument position: SpecCP, Spec ν P (?)
 - A-movement targets an argument-position: Infl/TP-domain
- **Featural perception (recent)** [Obata and Epstein 2011, van Urk 2015, Miyagawa 2010, 2017]
 - Feature classes are responsible for the A'/A-distinction
 - **A-features:** [Φ], [θ], [D], [n], ([Case])
 - **A'-features:** [wh], [foc], [top], [rel], [δ]
 - A-features trigger movement with A-properties
 - A'-features trigger movement with A'-properties
 - Prerequisite: Movement involves a feature dependency (valuation, sharing, agreement,...)

Composite probes

- **Observation:**
 - A'/A distinction is not as clear-cut as it seems
 - Mixed behavior observable cross-linguistically
 - e.g. long-distance A-movement, focalization restricted to nominals, wh-movement without WCO-effects,...

- **Solution: Composite A'/A probes**
 - [A'] combines with [A] and forms composite probes

[a.o. Miyagawa 2010, van Urk 2015]
 - Composite probes trigger movement with A'- and A-properties
 - *Austronesian* [Aldridge 2004, 2008, 2017 Legate 2014, Drummond 2023]
 - *Bantu* [Scott 2021b]
 - *Nilotic* [van Urk 2015]
 - *Mayan* [Douglas 2018, Erlewine 2018, Branen and Erlewine 2020, Coon et al. 2021]
 - *Hyperraising languages* [Wurmbrand 2019, Lohninger et al. (2022)]
 - ...

Example: A'-movement restricted by A-properties

- Wh-movement restricted to nominals, without WCO effects

(3) Yè **dhùŋ-o_i** [cíi thək-dé_i t kâac]?
 be **boys.CS-which** [PERF.OV goat.CS-SG.3SG t bite.NF]

‘Which boy_i did his_i goat bite?’

Dinka Bor local wh-movement [van Urk 2015: 110]

(4) Yè **ŋà** [yíi tièeŋ-dè luêeel [è nhiεεr Ból t]?
 be **who** [HAB.OV wife-SG.3SG say.NF [C love.OV Bol.GEN t]

‘Who_i does his_i wife say Bol loves?’

Dinka Bor long-distance wh-movement [van Urk 2015: 110]

(5) ***Who_i** is it that her_i mother t likes?

A'/A Properties of restricted A'-movement in Dinka

A-properties

local

restricted to nominals

no reconstruction for principle C

no WCO effects

no parasitic gap licensing

no interpretational restriction

A'-properties

long-distance

not restricted

reconstruction for principle C

WCO effects

parasitic gap licensing

discourse-dependent interpretation

Different types of composite probes

- Not all composite probes show the same probing mechanism
- They differ in **how dependent** their features are from each other
 - ... or, as we will see later, in what direction their features are contingent on each other
- For **composite Φ -probes**: *a.o.* Bobaljik and Thráinsson (1998), Béjar and Rezac (2003), Coon and Bale (2014), Preminger (2014), Deal (2015), Coon and Keine (2020), ...
- For **composite A'/A-probes**: Scott (2021b), Lohninger (2022) & this talk!

Two types of composite A'/A probes

- Observation: people mean different things when they talk about composite probing
- Composite probes seem to come in two flavours:

Two types of composite A'/A probes

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 - **Conjunctive Probe** [A'+A]: The composite probe only agrees with a goal with both fitting features; partly fitting goals **are skipped**

Two types of composite A'/A probes

- Observation: people mean different things when they talk about composite probing
- Composite probes seem to come in two flavours:
 - **Conjunctive Probe** [A'+A]: The composite probe only agrees with a goal with both fitting features; partly fitting goals **are skipped**
 - **Dependent Probe** [A'/A]: The composite probe only agrees with a goal with both fitting features; partly fitting goals **cannot be skipped**

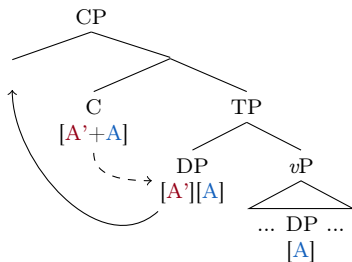
Empirical evidence for the two-way split

- Languages that have been analysed as involving composite probes show different behaviour wrt...
 - **A-Minimality** of the goal (Symmetry vs. Asymmetry)
 - i.e. how intervening **partly fitting goals** are treated

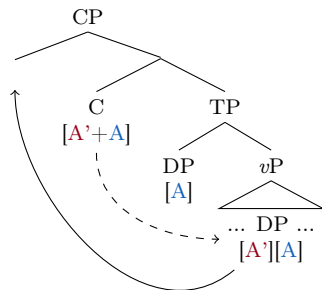
	Conjunctive	Dependent
<i>A-Minimality</i>	×	✓
<i>Partly fitting goal</i>	skipped	crash

Conjunctive Probe [A'+A]: Descriptive

	Conjunctive	Dependent
<i>A-Minimality</i>	×	✓
<i>Partly fitting goal</i>	skipped	crash



Conjunctive probe targets a goal iff it carries **both matching features**.



No A-Minimality: partly fitting goals are skipped.

Conjunctive Probe [A'+A]: Empirical

	Conjunctive	Dependent
<i>A-Minimality</i>	×	✓
<i>Partly fitting goal</i>	skipped	crash

- **Dinka** focalization, topicalization, relativization, wh-movement [van Urk 2015]
- **Khanty** topicalization/ passivization [Colley and Privoznov 2020]
- **Kipsigis** movement to postverbal focus [Bossi and Diercks 2019, Scott 2021b]
- **Ndengeleko** focalization [Scott 2021b]
- **Nukuoro** wh-movement (?) [Drummond 2023]

Conjunctive Probe [A'+A]: Empirical

- **Dinka** topicalization (also focalization, relativization, wh-movement) with A-properties
 - [TOP+ Φ] on C [van Urk 2015]
 - \times A-Minimality: partly fitting goals are skipped
- (6) **Cuïn** à-yàa tàak [kè cɛɛm Áyèn *t*].
food 3S-HAB.1SG think.NF [C eat.OV Áyèn.GEN *t*]
 ‘The food, I think Ayeñ is eating.’ [van Urk 2015: 95]
- A'/A: Topicalization does not induce WCO-effects
- (7) **Mòc ében** àyí tiéɛŋ-dè luêeel [è *t* thɛt].
man every 3S-HAB-OV woman-SG.3SG say.NF [C *t* cook.SV]
 ‘Every man_i, his_i wife says is cooking.’ [van Urk 2015: 110]

Conjunctive Probe [A'+A]: Empirical

- **Ndengeleko** focalization (only possible with nominals)
- [FOC+n] on low Foc (between T/Infl and *v*) [Scott 2021b]
- ×A-Minimality: partly fitting goals are skipped

- (8) Ni-m-pa-y-a **Nády**a ki-lyó *t*.
 1SG.SM-give-APPL-FV **Nadya** 7-food *t*
 'I give NADYA food.' [Scott 2021b: 19]

- Partly fitting goals can be nominalized to fit the probe

- (9) N-and-á ***(u)-telek-a** pilau.
 1SG.SM-AUX-FV ***(15)-cook-FV** rice
 'I am COOKING rice.' [Scott 2021b: 19]

- (10) Habiba a-telek ***(lí)-íno** mbáa.
 Habiba 1.SM-cook ***(5)-today** rice
 'Habiba is cooking rice TODAY.' [Scott 2021b: 10]

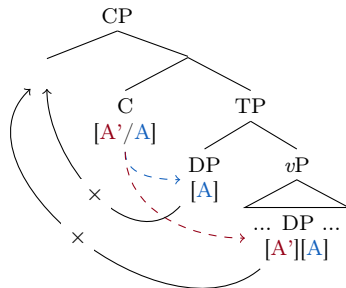
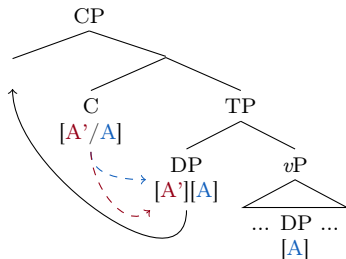
Conjunctive Probe [A'+A]: Empirical

- **Kipsigis** focus/topic movement to post-verbal position restricted to nominals
- [FOC+D] on T/Infl [Bossi and Diercks 2019, Scott 2021b]
- × A-Minimality: partly fitting goals are skipped

- (11) Kii- \emptyset -goo-chi ngo *t* Kibet kitabut?
 PST-3SG-giveAPPL **who** *t* Kibet book
 ‘Who gave Kibet a book?’ [Bossi and Diercks 2019: 8]
- (12) Koo- \emptyset -goo-chi nee Chepkoech *t* Kibet?
 PST-3SG-giveAPPL **what** Chepkoech *t* Kibet
 ‘What did Chepkoech give Kibet?’ [Bossi and Diercks 2019: 8]
- (13) Kii- \emptyset -goo-chi ngo Chepkoech kitabut *t*?
 PST-3SG-giveAPPL **who** Chepkoech book *t*
 ‘Who did Chepkoech give a book?’ [Bossi and Diercks 2019: 8]
- (14) *Koo- \emptyset -min komie bandeek lagok *t*.
 PST-3PL-plant **well** maize children *t*
 Int.: ‘The children planted the maize WELL.’ [Bossi and Diercks 2019: 9]

Dependent Probe [A'/A]: Descriptive

	Conjunctive	Dependent
<i>A-Minimality</i>	×	✓
<i>Partly fitting goal</i>	skipped	crash



Dependent probe searches for a goal with **both matching features**.

A-Minimality: partly fitting goal blocks further probing. Only successful derivation: highest DP carries [A'] and [A].

Dependent Probe [A'/A]: Empirical

	Conjunctive	Dependent
<i>A-Minimality</i>	×	✓
<i>Partly fitting goal</i>	skipped	crash

- **Acehnese** wh-movement [Legate 2014]
- **Māori** focalization, topicalization, relativization, wh-movement [Douglas 2018]
- **Mayan** focalization, relativization, wh-movement [Scott 2021b]
- **Toba Batak** focalization, wh-movement [Erlewine 2018, Branán and Erlewine 2020]
- **Turkish** Relativization [Branán and Erlewine 2020]

Dependent Probe [A'/A]: Empirical

- **Toba Batak** wh-movement of nominals (also topicalization)
- [FOC/D] on C [Erlewine 2018]
- ✓ A-Minimality: intervening partly fitting goals lead to a crash

(15) **Ise** [man-uhor *t* buku]?
who [ACT-buy *t* book]
 'Who bought a book?' [Erlewine 2018: 664]

(16) * **Aha** [man-uhor si Poltak *t*]?
what [ACT-buy PN Poltak *t*]
 'What did Poltak buy?' [Erlewine 2018: 663]

Dependent Probe [A'/A]: Empirical

- **Māori** relativization restricted to highest nominal (also topicalization, wh-movement, focalization)
- [REL/D] on C [Douglas 2018]
- ✓ A-Minimality: intervening partly fitting goals lead to a crash

(17) ... kua tata ki te taha o **te toka rangitotoi** [e tū ana **t** i
 ... TAM near to the side of **the rock scoria** [TAM stand TAM **t** at
 te ara].
 the path]
 '... [she] neared the side of the scoria rock which was standing in the
 path' [Bauer (1997): 566]

(18) *Ka mōhio ahau ki **te tangatai** [i kōhuru a Hone **t**].
 TAM know I to **the man** [TAM murder PERS John **t**]
 Int.: 'I knew the man that John murdered.' [Bauer (1997): 569]

Dependent Probe [A'/A]: Empirical

- **Acehnese** wh-movement of nominals
- [WH/D] on C [Legate 2014]
- ✓ A-Minimality: intervening partly fitting goals lead to a crash
- Object extraction only out of passivized clauses

(19) **Soe** yang *t* pajôh unkot?

who C *t* eat fish

‘Who ate the fish?’

[Legate (2014): 84]

(20) **Peue** yang *t* geu-pajôh lé Ibrahim?

what C *t* 3POL-eat by Ibrahim

‘What does Ibrahim eat?’ (Lit.: ‘What is eaten by Ibrahim?’)

[Legate (2014): 84]

Composite A'/A probes on *vP*

- *vP* can carry [A'/A]
 - [*a.o.* Van Urk and Richards 2015, van Urk 2015, Zeller 2015, Longenbaugh 2017, Mursell 2018, Bárány 2023]
- Typological examination in Bárány (2023)
 - A-Minimality differences in object agreement
 - symmetric vs. asymmetric agreement patterns
 - [δ/Φ] on *v*
- van Urk (2015) proposes that both C and *v* carry a (conjunctive) composite probe in Dinka

	Conjunctive	Dependent
<i>A-Minimality</i>	×	✓
<i>Partly fitting goal</i>	skipped	crash
<i>Languages</i>	Dinka, Itelmen, Zulu	Swahili

Composite A'/A probes on vP: Conjunctive

- **Zulu** differential object agreement triggered by information structure
[Buell 2005, Adams 2010, Halpert 2012, Zeller 2012, 2014, 2015]
- $[\delta + \Phi]$ on v [Bárány 2023]
- No A-Minimality: OM possible **recipients** and themes

(21) Ngi-m-theng-el-a u-bisi (u-Sipho).
 1SG-1OM-buy-APPL-FV AUG-11.milk (AUG-1A.Sipho)
 'I'm buying him (Sipho) some milk.'

(22) Ngi-lu-theng-el-a u-Sipho (u-bisi).
 1SG-11OM-buy-APPL-FV **AUG-1A.Sipho** (AUG-11.milk)
 'I'm buying it (the milk) for Sipho.' [Zeller 2015: 15, cit. from
 Bárány 2023]

Composite A'/A probes on *v*P: Dependent

- **Swahili** differential object agreement triggered by information structure [Seidl and Dimitriadis 1997, Mursell 2018]
- $[\delta/\Phi]$ on *v* [Bárány 2023]
- ✓ A-Minimality: OM only possible with the highest object (**recipients** in ApplP, not themes in VP)

(23) Ni-me-**m**-pa **Juma** vitabu vyote vitatu pale.
 1SG.SM-PFV-**1OM**-give **1.Juma** 8.book 8.all 8.three 16.there
 'I have given Juma all three books there.'

(24) *Ni-me-**vi**-pa **Juma** vitabu vyote vitatu pale.
 1SG.SM-PFV-**8OM**-give **1.Juma** 8.book 8.all 8.three 16.there
 Int.: : 'I have given Juma all three books there.'

[Riedel 2009: 62-63, cit. from Bárány 2023]

Data summary

	Conjunctive	Dependent
<i>A-Minimality</i>	×	✓
<i>Partly fitting goal</i>	skipped	crash
[A'/A] on C	Dinka, Khanty, Kipsigis, Ndengeleko, Nukuoro (?)	Acehnese, Māori, Mayan, Toba Batak, Turkish, Aus- tronesian (?)
[A'/A] on <i>v</i>	Dinka, Itelmen, Zulu	Swahili

Contingent Probes

- Branan (2022)
- Composite probes are **contingent on each other**
- They **restrict each others search domain**
 - The two parts of the composite probe probe one after another
 - The goal of the first probe defines the domain of probing for the second probe
- Agree consist of a series of more **primitive operations**
- They are **ordered**; their **outputs** feed one another

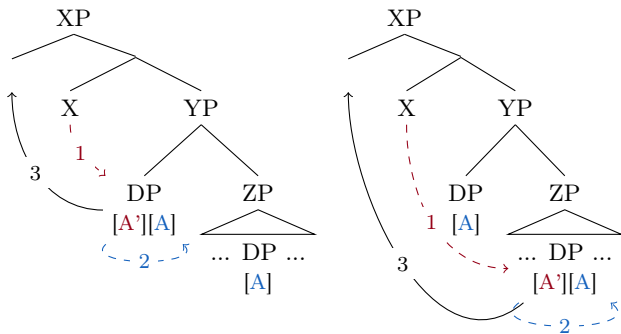
Probe(F,START:) → search the tree for F, and then do something else if F is found; START determines where the search starts

Copy(F,FP) copy a feature or phrase to where search started

End() stop probing

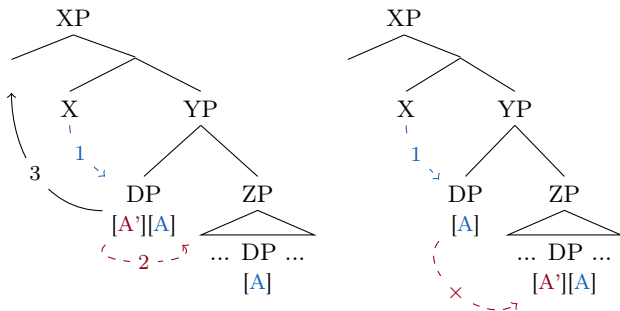
Contingent Probes: Conjunctive

- 1 Probe(A' , START:X) \rightarrow
2 Probe(A , START:goal) \rightarrow
3 Copy(goal)
- End()



Contingent A'/A Probes: Dependent

1 Probe(A, START:X) →
 2 Probe(A', START:goal) →
 3 Copy(goal) End()



[Branan 2022: 11,12]

Predictions and Problems of Contingent Probes

- In principle, two different goals can be found (possessor extraction)
 - This is true for some languages
 - e.g. Tagalog possessor extraction only from pivot; [A] unlocks DP, [A'] can find another DP within it [Nakamura 1996, Branagan 2018]
 - e.g. Turkish relativization only possible with highest DP or possessor of this DP [Branagan and Erlewine 2020]
- Might overgeneralize for other languages
- Neither [A'] nor [A] in a contingent probe can fail (contra Preminger 2009, 2014)
- Other accounts: Interaction & Satisfaction, Feature Gluttony (arguments for/against see appendix)

Summary & Conclusion

- Systematic typological investigation of composite A'/A probes
- Fine-grained differences between what has been analyzed as *composite probing*
- Differing empirical properties
 - Conjunctive, dependent
 - Differences in A-Minimality, treatment of partly fitting goals

	Conjunctive	Dependent
<i>A-Minimality</i>	×	✓
<i>Partly fitting goal</i>	skipped	crash
[A'/A] on C (or T)	Dinka, Khanty, Kipsigis, Ndengeleko, Nukuoro (?)	Acehnese, Māori, Mayan, Toba Batak, Turkish, Austronesian (?)
[A'/A] on <i>v</i>	Dinka, Itelmen, Zulu	Swahili

- Analysis in terms of *Contingent Probes* [Branan 2022]

What I'm currently doing

- Making a huge and very confusing excel table with properties of what has been claimed to be A'/A-movement
- Figuring out whether all languages that have been analysed as composite A'/A probing exhibit the same mix of A'- and A-properties
- E.g. is "restriction to nominals" enough to make something classify as A-movement?
- Seeing whether Hyperraising (= A-movement out of a CP) can be included in this typology
- Thinking about whether A'- versus A-movement is more of a scale than a two-/three-way split
- Thinking about *tough*-movement (see also Longenbaugh 2017 on A'/A on *v*)

Bigger Questions (that I have no answers for)

- Where do composite probes come from? (Percolation, Inheritance, Head fusion...?)
- Why do we still allow A'/A movement if it does not correspond to movement to an argument position any more?
- Is the distribution of composite probes parametrized?
- Do languages stick to one type of composite probe? Is there a CP/vP relation?

Thank you!

And thanks for organizing this!

Interaction & Satisfaction

- Probes come with Interaction and Satisfaction conditions [Deal 2015]
 - **Interaction [INT]**: goal can value the probe
 - **Satisfaction [SAT]**: probing is halted
 - Probing stops when [SAT] is found or nothing is left
- Composite probes: different Interaction and Satisfaction conditions [Scott 2021b,a, Bárány 2023]

	SAT: A, SAT: A'	SAT: A and A'	SAT: A or A'
INT: A,A':	independent	conjunctive	dependent?

A'/A on C/T; difference in Satisfaction [Scott 2021a]

	SAT: A	SAT: A'
INT: A	Φ -agreement	\times
INT: A,A'	dependent?	conjunctive

A'/A on v; difference in Interaction [Bárány 2023]

Why not different Satisfaction conditions?

- Different Satisfaction conditions derive independent and conjunctive probing well
- They do not *per se* derive dependent probes (SAT: A' or A)
- Additional assumptions needed:
 - If highest goal carries just [A], then it satisfies the probe (disjoint satisfaction; A' or A)
 - But this is not what we observe; [A'] needs to be involved in dependent probing!
 - Stipulated: obligatory EPP on SpecCP
 - [SAT: A or A'] probe only moves elements with [A'] [Scott 2021a: 13]
- we need an additional constraint that all of the interaction conditions need to be met
 - [A'] is not be able to move $DP_{[A]}$
 - EPP not satisfied → crash

Why not different Interaction conditions?

- INT conditions need to be obligatory
- Note: in the original framework, they are not
- Goal needs to fulfill both INT conditions for a successful outcome
- How does this ever derive independent probing?
- Via possible failure of one of the INT conditions?
- How can they first be obligatory and then fail? → Last resort option?

Dynamic Interaction

- The interaction condition can change in the course of agreement
- Once the probe has agreed with a goal with a certain feature (e.g. [PART]), it can further only agree with an argument that also carries this feature
- i.e. interaction with one goal copies the features of the goal into the interaction specification of the probe (to something more specific)
- The interaction condition of the first round of probing is different than the interaction condition of the second round
- Example (for PCC)
 - Probe round 1: [INT: ϕ , SAT: -]
 - agrees with DO with [PART]; [PART] is copied into the interaction condition
 - Probe round 2: [INT: PART, SAT: -]
 - Gives us configurations like: when IO is 3rd person, it can only be agreed with if the higher DO lacks [PART]

Problems for Dynamic Interaction

General problems for an A'/A adaption:

- Problem 1 - Hierarchy
 - We would need a containment hierarchy between A' and A for this to work
 - One of the two would need to be the subset of the other one for the INT to become more specific
 - This sounds very stipulative
- Problem 2 - False Predictions
 - Do we ever see any trace of interaction if the agreed-with goal is not the highest one (e.g. in conjunctive probing)?
 - What about intervening pure A'-elements?

Problems for Dynamic Interaction

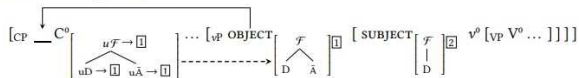


- Idea: F combines A' and A symmetrically (see also Coon et al. 2021)
- **Conjunctive:**
 - ① [INT:F, SAT:A'] \rightarrow interacts with DP[A] on the way down, copies [A] into INT; is not satisfied
 - ② [INT:A, SAT:A'] can now find the lower DP[A'/A]
 - Problem: How do we exclude that a pure A'-goal in the way halts probing and fulfills the probe?
 - We don't really need dynamic probing here, we can also just use [SAT: A' and A]
- **Dependent:**
 - ① [INT:F, SAT:-] \rightarrow encounters the closest DP with (only) [A], copies [A] back into INT
 - ② [INT:A, SAT:-]
 - How do we now make sure the goal also carries [A']?
 - Basic problem remains: we need an additional constraint on interaction that says that all interaction conditions need to be met

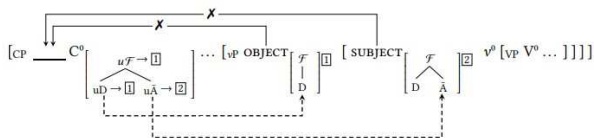
A'/A Feature Hierarchy

- Coon and Keine (2020), Coon et al. (2021)
- [A'] and [A] are in a **hierarchical relation** [cf. Harley and Ritter 2002]
- *Feature Gluttony* [Coon and Keine 2020]
 - Segments of a feature hierarchy can probe on their own
 - Probing does not stop when a partly fitting goal is found
 - When a lower, better fitting goal is found, the probe has too much to agree with → crash

\bar{A} -movement of the object



\bar{A} -feature located on subject → gluttony



[Coon et al. 2021: 20,21]

Why not a Feature Hierarchy?

- Dependent probes: $A \rightarrow A'$ hierarchy
- Conjunctive probes: no hierarchy, same strength? \rightarrow stipulative
- Dependent: crash because the probe has too much to agree with
- Comes back to a movement restriction: Only one element can be moved

Conjunctive Probe [A'+A]: Empirical

- **Khanty** subject promotion/passivization (involves topicalization)
- [TOP+Φ] on T/Infl [Colley and Privoznov 2020]
- ×A-Minimality: partly fitting goals are skipped
- **A-properties**: restricted to nominals, no WCO effects
- **A'-properties**: no A-Minimality, effects on information structure (can only serve as an answer to "What happened to X?")

(25) **mɨŋ** nawrɛm-ɛm-a maw mə-s-əw.
 we kid-1SG-DAT candy give-PST-1PL
 'We gave candy to my kid.'

(26) **maw-λ-am** məša-jen-ən t nawrɛm-ɛm-a mə-s-i-jət.
 candy-PL-1SG Masha-2SG-LOC t kid-1SG-DAT give-PST-PASS-3PL
 'My Candy was given by (your) Masha to my kid.'

(27) **nawrɛm-ət** məša-jen-ən maw-ən t mə-s-i-jət
 kid-PL Masha-2PL-LOC candy-LOC t give-PST-PASS-3PL
 'Our kids were given candy by (your) Masha.'

[Colley and Privoznov 2020: 2]

Dependent Probe [A'/A]: Empirical

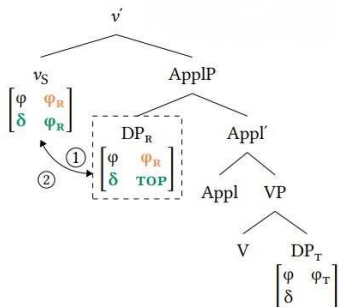
- **Mayan** wh-movement of nominals
- [WH/ ϕ] on C [Coon et al. 2021]
- \checkmark A-Minimality: intervening partly fitting goals lead to a crash
- Object moves above subject (to a head right above vP) before extraction, thus is the highest DP
- A-Minimality is structural not functional
- Subject extraction only possible out of intransitives

(28) **Maktxel** max y-il-a' *t* naq winaq?
 who ASP 3ERG-see-TV *t* CLF man
 'Who did the man see?' [Coon et al. 2021: 192]

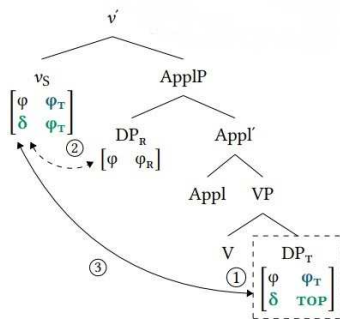
(29) ***Maktxel** max y-il-a' ix ix *t*?
 who ASP-3ABS 3ERG-see-TV CLF woman *t*
 Int.: 'Who saw the woman?' [Coon et al. 2021: 193]

(30) **Maktxel** max way-i *t*?
 who ASP sleep-ITV *t*
 'Who slept?' [Coon et al. 2021: 192]

Conjunctive Probe [A'+A] on vP

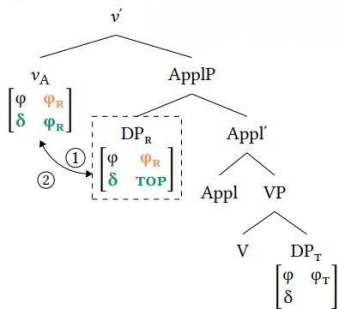


[Bárány 2023: 6]

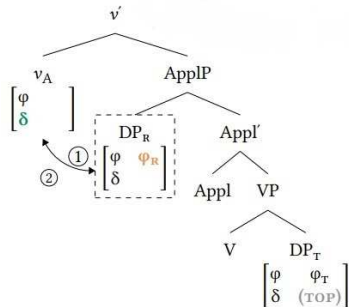


[Bárány 2023: 6]

Dependent Probe [A'/A] on vP



[Bárány 2023: 7]



[Bárány 2023: 7]

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