Extraction as a window into multiple loci of Agree: Insights from Acehnese*

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1 Introduction

This talk . . .

- reexamines a set of (puzzling) person-indexing verbal affixes in Acehnese.
- argues that this set of affixes is triggered by two distinct Agree relations in different voice environments.
- demonstrates that Acehnese exhibits a strict 'pivot-only' extraction constraint even though this constraint remains morphologically opaque.

Key implications . . .

- \rightarrow Extraction provides a window into the locus of Agree.
- \rightarrow An extraction constraint may be syntactically active without morphological marking—especially in languages shifting toward analytic syntax.
 - As is well-known, Acehnese (ISO 639-3 *ace*) exhibits a passive construction that features verbal agreement with the (demoted) agent (1):
 - (1) Acehnese
 - a. Gopnyan lon undang bak kenduri lé lon.
 3SG.POL 1SG-invite P feast by 1SG
 'S/he was invited to a/the feast by me.' [PASS]
 - b. Gari nyan **geu**-bloe **lé Abu**.
 bike DEM **3**SG.POL-buy **by Father**'That bike was bought by Father.' [PASS]
 - \rightarrow In (1a), the verb agrees with the 1st-person agent by-phrase.
 - \rightarrow Likewise, in (1b), the verb display politeness agreement with the 3rd-person agent *by*-phrase.

- The same set of agreement is found in Acehnese's Actor Voice (AV) constructions (2), where the verb also carries a person/number-indexing affix that crossreferences the agent/subject:
 - a. Lon lon undang jih bak kenduri.
 1SG 1SG-invite 3SG.FAM P feast
 'I invited her/him to a/the feast.' [AV]
 b. Ureueng nyan geu bloe gari.
 person DEM 3SG.POL-buy bike
 'That person bought a bike.' [AV]
- Both environments utilize the same paradigm of verbal affixes (3):

	1sg	1PL	2sg	2PL	3sg	3PL
(3)	lon-	meu- (exc.)	ka- (familiar)	_	<i>ji</i> - (familiar)	_
	_	ta- (inc.)	neu- (polite)	_	geu- (polite)	_

- In contrast to the declaratives (1)–(2), Durie (1985) and Asyik (1987) both report that this set of verbal affixes cannot appear in relativization, *wh*-extraction, or focus constructions targeting the subject/agent:
 - (4) Subject relativization (Durie 1985: 235)

 Lôn ngieng ureung nyang (*geu) -bloe moto baro
 1SG see person REL 3SG.POL-buy car new
 'I saw the person who bought a car.'
 - (5) Subject relativization (Asyik 1987: 412)

 Ureueng nyang (*geu) -peugöt rumoh kamoe ka saket.
 person who 3sg.Pol-make house 1PL.EXC PERF sick

 'The person who makes our house is ill.'

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- (6) Subject wh-question (Durie 1985: 262)
 - Soe (***ji**)-poh si Ali who 3_{SG.FAM}-kill ART Ali
 - 'Who killed Ali?'
 - (7) Subject wh-question (Asyik 1987: 282)

Soe (*ji)-cok bungkoh ureueng nyan? who 3sg.FAM-take package person that

'Who has taken that person's package?'

(8) Subject focus construction (Asyik 1987: 453)

Ureueng nyan nyang (*geu) -peugöt pageue kamoe person that who 3sg.pol-make fence 1PL.EXCL

'It is that person who made our fence.'

- This constraint is re-confirmed through our primary fieldwork on two dialects of Acehnese: North Acehnese (2 speakers) and the Great Aceh dialect (1 speaker) through both elicitation and grammaticality judgment tests.
- In either subject or object extraction, verbal agreement is obligatorily absent in fronted *wh*-questions, relativization, and pseudo clefts:
 - (9) SUBJECT WH-Q
 - a. Soe nyang (*ji)-bloe gari? who COMP (3SG.FAM)-buy bike 'Who bought a bike?'
 - b. Soe nyang (*ji)-kirem surat u rumoh lon? who COMP (3SG.FAM)-send letter P house 1SG 'Who sent a letter to my house?'
 - (10) SUBJECT RELATIVIZATION
 - a. Ureueng nyang (*geu)-peu-gléh mèja nyan ka
 person REL 3SG.POL-CAUS-clean table DEM PERF geu-jak.

3sg.pol-go

'The person who cleaned that table has gone.'

b. Aneuk miet nyang (*ji)-bloe itangèn ka child small REL 3SG.FAM-buy bycicle PERF ji-jak.

3SG.FAM-go

'The child who bought a bike has gone.'

(11) SUBJECT CLEFT

- a. Si Randi nyang (***ji**)-bloe gari.

 ART Randi COMP (**3**SG.FAM)-buy bike

 'It was R. who bought a bike.'
- b. Ureung nyan nyang (*geu)-kirem surat u rumoh lon. person DEM COMP (3SG.POL)-send letter P house 1SG 'It was that person who sent a letter to my house.'

(12) OBJECT WH-Q

- a. Peu nyang jih (*ji)-bloe? what COMP 3SG.FAM (3SG.FAM)-buy 'What did s/he buy?'
- b. Peu nyang abuwa (*geu)-peu-gót? what COMP uncle (3SG.POL)-CAUS-good 'What did uncle fix?'

(13) OBJECT CLEFT

- a. Gari nyang si Randi (*ji)-bloe. bike COMP ART Randi (3sg.FAM)-buy 'It was a bike that R. bought.'
- b. Meja nyan nyang abuwa (***geu**)-peu-gléh. table DEM COMP uncle (**3SG.POL**)-CAUS-clean 'It was that table that Uncle cleaned.'

(14) OBJECT RELATIVIZATION

a. Itangèn nyang gopnyan (*geu)-bloe gadöh baroe. bike COMP 3SG.POL (3SG.POL)-buy lost yesterday 'The bike that the person bought was missing yesterday.'

b. Rumoh nyang Abuwa (*geu)-peu-göt ka house COMP uncle (3SG.POL)-CAUS-good PERF geu-publoe lé Abu.
3SG.POL-sell by Father
'The house that Uncle fixed has been sold by Father.'

2 Main Claims

- We present new evidence on two issues central to ongoing debates in Acehnese syntax.
- **1.** The morphologically identical verbal affix in passive and AV is triggered by two distinct heads: Voice in the former and (finite) T in latter.
 - (15) Acehnese
 - a. Gari nyan geu -bloe lé Abu.
 bike DEM 3SG.POL-buy by Father
 'That bike was bought by Father.' [PASS]
 [TRIGGER OF VERBAL AFFIX: Voice]
 - b. Ureueng nyan **geu**-bloe gari.
 person DEM **3SG.POL**-buy bike

 'That person bought a bike.' [AV]

 [TRIGGER OF VERBAL AFFIX: T]
 - \rightarrow Contra Legate (2014), where both are attributed to the Voice head.
- **2.** Although Acehnese appears to impose no voice-marking constraints on Ā-extraction ((4)–(8)), it essentially exhibits a strict, Philippine-style 'pivot-only' restriction, despite the absence of Philippine-type syntax in the language.
- ⊗ This analysis aligns with the existing claim that Acehnese exhibits a grammatical subject position (Spec, TP) that attracts the highest caseless DP in a given clause (Legate 2014).

3 'Pivot-only' shown through implicit voice distinctions

- At first glance, Ā-extraction in Acehnese is free of any voice-marking constraint (4)–(14).
- However, Acehnese's strict word-order pattern indicate:
 - agent extraction must follow the AV's word order pattern;
 - theme extraction must follow the OV's word order pattern.
- \Rightarrow Acehnese essentially does impose voice constraint on \bar{A} -extraction!
 - (16) Word order in AV: Agent (Aux) V Theme
 - a. Lôn ka lôn-pöt boh mamplam.1SG PERF 1SG-pick fruit mango'I have picked some mangoes.'
 - b. Gopnyan teungoh geu-peu-göt rumoh-lon.

 3SG.POL PROG 3SG.POL-CAUS-good house-1SG.POSS

 'S/he is fixing my house.'
 - \rightarrow Note also that Acehnese AV does not bear overt voice-marking.
 - (17) SUBJECT WH-Q
 - a. Soe *(nyang) (*ji)-bloe gari? who *(COMP) (3SG.FAM)-buy bike 'Who bought a bike?'
 - b. *Soe nyang gari bloe?who COMP bike buy(Intended: 'Who bought a bike?')
- \rightarrow To extract the agent/subject, it must be clefted, evident by the use of the obligatory complimentizer *nyang*.
- \rightarrow The theme cannot serve in the preverbal position—a word order pattern disallowed in AV.

[WH]

(18) Word order in OV: **Theme - (Aux) - Agent - V**

- a. Boh mamplam ka lôn pöt.
 fruit mango PERF 1SG pick
 'I have picked some mangoes. (OV)
- b. Rumoh-lon teungoh gopnyan peu-göt.
 house-1sg.poss prog 3sg.pol caus-good
 'S/he is fixing my house.' (OV)
- → Like the AV, Acehnese OV also not bears no overt voice-marking.
- (19) OBJECT WH-Q
 - a. Peu nyang ka jih (*ji)-bloe?
 what COMP PERF 3SG.FAM (3SG.FAM)-buy
 'What has s/he bought?' (OV)
 - b. *Peu nyang jih ka bloe?
 what COMP 3SG.FAM PERF buy
 (Intended: 'What has s/he bought?')
 (OV)
- \rightarrow To extract the theme of a two-place verb, the theme must be clefted, evident by the obligatory use of the complimentizer *nyang*.
- → The agent surfaces in the preverbal position immediately following the auxiliary—in line with the word order of OV.
- ⇒ This suggests that agent extraction is only possible from AV, and theme extraction is only possible from OV, demonstrating a strict 'pivot-only' restriction.
- In line with the observation above, the same constraint applies to the passives: only the theme (i.e. the syntactic pivot) (20), and not the agent (21), may be extracted from a passive:

- (20) Theme extraction from a passive
 - a. **Peu** *(nyang) geu-peugléh lé Abu? **what** COMP 3SG.POL-clean by Father

 'What did Father clean?'
 - b. **Meja** *(nyang) geu-peu-gléh lé Abu gadöh. **table** COMP 3SG.POL-CAUS-clean by Father missing

 'The table cleaned by F. was missing.' [RELATIVIZATION]
 - c. **Meja nyan** *(nyang) geu-peu-gléh lé Abu **table DEM** COMP 3SG.POL-CAUS-clean by Father

 'It was that table that was cleaned by Father'

 [CLEFT]
- (21) Agent extraction from a passive
 - a. *Lé soe mèja nyan geu-peugléh (*lé soe)?
 by who table DEM 3SG.POL-clean (by who)
 (Intended: 'By whom was that table cleaned?')
 - b. *Lé ureung nyang mèja nyan geu-peugléh ka geu-jak.
 by person COMP table DEM 3SG.POL-clean) PERF 3SG.POL-go
 ('The person who cleaned the table has gone.') [RELATIVIZATION]
 - c. *Lé Abu nyang mèja nyan geu-peugléh.

 by Father COMP table DEM 3SG.POL-clean)

 (Intended: 'It was Father who cleaned that table.')

 [CLEFT]
- \rightarrow 'Pivot-only' in passives: only the theme pivot is eligible for \bar{A} -extraction.

4 Absence of agreement as a window into the locus of Agree

- Let us now revisit the examples in (9)-(11), repeated below in (22).
 - (22) Instances of agent extraction
 - a. Soe nyang (*ji)-bloe gari? who COMP (3SG.FAM)-buy bike 'Who bought a bike?'

(Subject Wh-Q)

 b. Ureueng nyang (*geu)-peu-gléh mèja nyan ka person REL 3SG.POL-CAUS-clean table DEM PERF geu-jak.

3SG.POL-go

'The person who cleaned that table has gone.' (Subject RC)

- c. Si Randi nyang (*ji)-bloe gari.

 ART Randi COMP (3SG.FAM)-buy bike

 'It was R. who bought a bike.' (Subject cleft)
- Recall that verbal agreement is obligatory in ordinary AV clauses without Ā-extraction, as in (23):
 - (23) a. Lon lon undang jih bak kenduri.

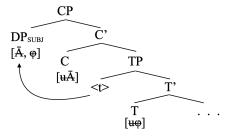
 1SG 1SG-invite 3SG.FAM P feast

 'I invited her/him to a/the feast.' [AV]
 - b. Ureueng nyan geu -bloe gari.
 person DEM 3SG.POL-buy bike
 'That person bought a bike.' [AV]
 - ullet The fact that instances of agent extraction must exhibit the word order of AV constructions yet cannot license verbal agreement thus suggests that $ar{A}$ -extraction is responsible for the absence of the verbal affix.

• Why would Ā-extraction eliminate verbal agreement (in AV clauses)?

 \otimes We argue that this is the effect of anti-agreement— φ -agreement in the Actor Voice is triggered by Agree with T; thus, where the grammatical subject (the highest DP per clause) Agrees with an $\bar{\text{A}}$ -probe (e.g. [uwh], [urel], [ufoc]) and moves to an $\bar{\text{A}}$ -position, the anti-agreement effect is manifested, since the subject has been locally extracted from [Spec, TP] (Ouhalla 1993; Schneider-Zioga 2007; Baker 2008; Baier 2018; a.o.):

(24) Proposed anti-agreement effect in Acehnese's AV constructions



(25) Anti-agreement

Extraction of the subject requires a special form of the verb whose main characteristic is that its agreement inflection does not agree with that of the extracted subject. (Ouhalla 1993: 477)

- In other words agreement between a probing head (commonly, T) and a goal DP may be disrupted or suppressed when the DP enters into an Agree relation with an Ā-probe (and undergoes Ā-extraction). For example:
 - (26) Anti-agreement effect in Kinande (Bantu)
 - a. Kambale **a**-alangira Marya Kambale **AGR**-see Mary 'Kambale saw Mary.'
 - b. Wh-extraction

iyondi yo **u/*a-**alangira Marya who that **ANTI.AGR/(CANONICAL)AGR-**saw Mary 'Who saw Mary?'

c. Relativization

Yohani **a**-anzire mulimi **u**-ta-nyua John **AGR**-likes farmer **ANTI.AGR**-NEG-drink 'John likes any farmer who does not drink.' (Schneider-Zioga 2007: 404, 418)

- (27) Anti-agreement effect in Seereer (Niger-Congo)
 - a. okoor oxe **a**-jaw-a maalo fe man the **3**-cook.SG-FV rice DET 'The man cooked rice.'

- b. Wh-extraction
 an (*a-)jaw-u maalo
 who 3-cook.sG-FOC rice
 'Who cooked rice? (Baier 2018: 29)
- We argue that the same effect is found in Acehnese's AV construction, namely, ϕ -agreement between subject and T is banned because of the extraction of the subject.
 - (28) Acehnese
 - a. Ureueng nyan **geu**-bloe gari.
 person DEM **3sg.PoL**-buy bike

 'That person bought a bike.' (AV)
 - b. Soe nyang (*geu)-bloe gari?
 who COMP (3SG.POL)-buy bike
 'Who bought a bike?'

 (AV)
- \otimes Further support for our claim that the absence of φ -agreement in the AV (10)–(12) results from anti-agreement comes from instances of *wh*-in-situ in the language.
 - In contrast to wh-clefts, wh-in-situ sentences (29)–(30) display obligatory φ -agreement with the agent.¹
 - (29) ?Si Randi *(ji-)bloe peu?

 ART Randi (3SG.FAM)-buy what

 'What did Randi buy?' (AV)
 - (30) ?Mak *(geu-)undang soe bak walimah?

 Mother (3sG.POL)-invite who P wedding.ceremony

 'Who did Mother invite to the wedding ceremony?' (AV)
- \Rightarrow This reinforces the view that \bar{A} -extraction, rather than the use of interrogative or *wh*-words, is indeed the cause of the absence of agent-indexing verbal agreement in (9)–(14).

 Anti-agreement effect, however, is not observable in Acehnese's OV constructions, as the OV originally employs no verbal agreement with the agent/external argument.

(31) OV word order: **Theme (Aux) Agent V**

- a. Boh mamplam ka lôn pöt (*boh mamplam). fruit mango PERF 1SG pick
 'I have picked some mangoes.
- 'I have picked some mangoes. (OV)

 b. Rumoh-lon teungoh gopnyan cèt (*rumoh-lon).
 house-1SG.POSS PROG 3SG.POL paint

'S/he is painting my house.'

- → In OV, the verb must be unmarked; the external argument is realized as a full NP instead of a verbal affix.
- In other words, the empirical picture suggests that the OV imposes a 'pivot-only' constraint evident by word order, yet shows no morphological clues for identifying the presence or absence of anti-agreement effect.

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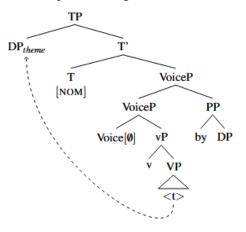
- ⊗ We argue that the apparently identical agent-indexing verbal morphology is triggered by two distinct heads
- (32) a. ACTOR VOICE: trigger of agreement: (finite) T

b. PASSIVE: trigger of agreement: Voice⁰ (Legate 2014)

- Namely, in passive constructions (33a–c), the same set of affixes does not reflect φ-agreement with T:
 - (33) Acehnese passives
 - a. Aneuk miet nyan meu-tingkue lé kamoe.
 child small DEM 1EXCL-carry.in.cloth by 1EXCL
 'The child is carried by us.'

¹Such examples are reported to be acceptable although disfavored by our speakers.

- b. Aneuk miet nyan neu-tingkue lé droeneuh.
 child small DEM 2POL-carry.in.cloth by 2POL
 'The child is carried by you.
- c. Aneuk miet nyan **geu**-tingkue lé **gopnyan**. child small DEM **3POL**-carry.in.cloth by **3POL**'The child is carried by him/her.' (Legate 2014: 6–7)
- Legate (2014) argues that this verbal affix is not ϕ -agreement but the morphological realization of the passive Voice head:
 - I argue that the Acehnese verbal prefix is not a clausal agreement marker (e.g., associated with finite Infl, as assumed in Durie 1988), but the morphological realization of the functional head that introduces the external argument [(i.e. Voice)]. (Legate 2014: 28)
 - The Acehnese prefix can be understood as an instance of predicate restriction applying internally to the Voice head. (Legate 2014: 39)
- This analysis is illustrated in (34):
- (34) Acehnese passive (Legate 2014)



 \Rightarrow Legate (2014): The Acehnese passive contains a Voice head that introduces an agent θ -role.

- \rightarrow The external argument position is existentially bound.
- \rightarrow The agent *by*-phrase is an adjunct; the preposition 'by' assigns an agent θ -role to its complement.
- \rightarrow The agent θ -role in the *by*-phrase is semantically tied to the agent θ -role assigned by Voice.
- \rightarrow Voice is marked by a verbal prefix that conveys features of an implicit agent, even in the absence of an agent *by*-phrase.
- Evidence for locating the affix in Voice: absence of this affix in restructuring infinitives (which lack a Voice layer) provides specific evidence that agreement is hosted on Voice (Legate 2014: 18):
 - (35) a. Batèe ji-cuba [(*ji-)pajôh] lé aneuk miet nyan rock 3.FAM-try 3.FAM-eat by child small that 'The rock was tried eat by the child.'

 (i.e., 'The child tried to eat the rock.')
 - b. Aneuk agam nyan geu-ci [peuréksa] lé dokto child male that 3POL-try diagnose by doctor
 'The boy was tried diagnose by the doctor. (i.e., 'The doctor tried to diagnose the boy.')

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- This analysis readily predicts that \bar{A} -extraction from the Acehnese passive should not drive the absence of verbal agreement—since the agreement-like affix found in the passive is neither triggered by Agree with T nor manifests φ -feature agreement (but rather is the spell-out of restrictive θ -features associated with the passive Voice head).
- This prediction is borne out: new data from primary fieldwork show that theme extraction (i.e. extraction from [Spec, TP]) does not impact the presence of verbal agreement in the passive:

- (36) Theme extraction
 - a. Peu nyang geu-peugléh lé Abu?what COMP 3SG.POL-clean by Father'What did Father clean?'[WH]
 - b. Meja nyang geu-peu-gléh lé Abu gadöh.
 table COMP 3SG.POL-CAUS-clean by Father missing
 'The table cleaned by F. was missing.' [RELATIVIZATION]
 - c. Meja nyan nyang geu-peu-gléh lé Abu table DEM COMP 3SG.POL-CAUS-clean by Father
 'It was that table that was cleaned by Father' [CLEFT]
- ⇒ This reinforces our claim that in passive constructions, this verbal affix is not hosted in T, hence its presence is not impacted by subject extraction.
- As for agent extraction, Legate (2014) reports it being possible from a passive as an instance of adjunct extraction (37).
 - (37) Lé soe (*nyang) boh drien nyan **ji**-pajôh? by whom COMP CL durian dem **3FAM**-eat 'By whom was the durian eaten?' (Legate 2014: 74) (PASS)
- Although such sentences were rejected by all three of our consultants who speak North and Great Aceh dialects, the crucial generalization here is that either theme or agent extraction from the passive (where acceptable) carries overt verbal agreement—as are passive constructions that involve no Ā-extraction.
- This suggests that φ -agreement is not impacted by agent dislocation in the passive (as long as there is no true \bar{A} -extraction involved), indicating that it is triggered by a head distinct from that in the AV (10)–(12).

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- ⊗ Further reason against attributing the verbal affix uniformly to Voice⁰ across the AV and the passive:
 - It entails that two distinct types of Voice head—Voice_{ACTIVE} and Voice_{PASSIVE}—are realized by the same set of verbal affix. At the same time, the Voice⁰ in OV—which, like the AV, also introduces an external argument—is not realized by the same set of affixes.
 - \circ Anti-agreement effect should not take place in AV if the verbal affix is also the morphological reflex of Voice⁰ (Legate 2014)—as a Voice affix should not manifest an effect that applies specifically to ϕ -agreement.

5 Conclusion and implications

- Acehnese's well-known verbal agreement with the agent is best analyzed as being triggered by two distinct heads in different voice environments.
- Extraction environments in which agreement is absent shed light on the trigger of the agreement.
- In languages that exhibit anti-agreement effects, extraction may provide a window into the precise locus of Agree.
- Despite lacking overt voice morphology, Acehnese exhibits highly constrained, Philippine-type pivot-only extraction.
- \Rightarrow An extraction constraint may be morphologically opaque yet syntactically active.

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Selected references

- Asyik, A. G. (1987). A contextual grammar of Acehnese sentences. Ph.D. thesis. U of Michigan.
- Baier, N. B. (2018). Anti-Agreement. Ph.D. thesis. UC Berkeley.
- Baker, M. C. (2008). On the Nature of the Antiagreement Effect: Evidence from Wh-in-Situ in Ibibio. *Linguistic Inquiry* Vol. 39, No. 4, 615-632
- Durie, M. (1985). A grammar of Acehnese on the basis of a dialect of North Aceh. Dordrecht: Foris.
- Legate, J. (2012). Subjects in Acehnese and the nature of the passive. *Language* 88, 495–525.
- Legate, J. (2014). Voice and v: Lessons from Achenese. MIT Press.
- Ouhalla, J. (1993). Subject-extraction, negation and the anti-agreement effect. *NLLT* 11:447–518.
- Schneider-Zioga, P. (2007). Anti-Agreement, anti-locality and Minimality: The syntax of dislocated subjects. *NLLT 25*, 403–446.