

Two sources of movement-derived resumption: Evidence from Atchan

Rebecca Jarvis
University of California, Berkeley
rjarvis@berkeley.edu

Abstract This paper argues for the existence of two different mechanisms in the grammar that can give rise to resumption in syntactic movement: some resumption patterns result from prominence-related pronunciation requirements, while others result from cliticization. Empirical motivation for this split comes from extraction patterns in Atchan (Kwa, Côte d'Ivoire), where PP subextraction and subject extraction behave differently: all PP subextraction requires resumption, subject extraction requires resumption only when a pronoun is extracted. I argue that the first pattern is best captured via a pronunciation requirement (and cannot be captured by cliticization accounts), while the reverse holds for the subject extraction pattern. I thus argue that these two resumptive mechanisms are not incompatible, and that they have different empirical coverage.

Keywords: resumption; A'-movement; copy deletion; cliticization

1 Introduction

The motivating question of this paper is what mechanisms force resumptive pronouns to surface in syntactic movement. We know that, across languages, resumptive pronouns can reflect a variety of derivations, from a repair strategy to improve ungrammatical island-violating derivations (as in English; Ross 1967; Asudeh 2004; Morgan & Wagers 2018, a.m.o.), simple binding of a pronoun with no attempted movement (Cinque 1977; Borer 1984; Aissen 1992; McCloskey 2006), or reduced pronunciation of a lower movement copy (Nunes 2004; van Urk 2018; Georgi & Amaechi 2022).

My interest in this paper focuses on the last derivation: genuine pronunciation of a lower copy in a movement chain. This question is of interest because not all movement gives rise to resumption. In canonical movement chains, only one copy of the moving element is pronounced:

- (1) Who_i did you see { \emptyset / *him / *who }_i ?

In the Copy Theory of Movement (following Chomsky 1993), this single-copy spellout is standardly taken to be the default way to spell out a movement chain. Formally, following Landau (2006), I assume a Chain Reduction algorithm that ordinarily mandates pronunciation of only one copy in the chain, on grounds of economy (Pesetsky 1998; Landau 2006) or perhaps linearization (Nunes 2004). On this view, the spellout of multiple copies (including the use of resumptive pronouns) is banned, all else being equal, hence the unacceptability of resumption in (1). However, when resumption occurs, we must say something additional to at least partially circumvent the Chain Reduction algorithm.

In the literature, there are two main mechanisms to circumvent full Chain Reduction and permit resumption. The first mechanism relies on prosodic prominence requirements (P-requirements; Landau 2006; van Urk 2018; Davis et al. 2020; Scott 2021; Georgi

& Amaechi 2022; Yip & Ahenkorah 2023). On this view, certain positions in the clause are associated with prosodic prominence. On this view, lower copies that occupy these prominent positions are insulated from full non-pronunciation, i.e., they cannot be fully deleted by Chain Reduction. In this case, a second algorithm, termed Copy Deletion, shaves off structure from the copy occupying the prominent position, yielding a reduced pronominal element pronounced in that position.

A second line of work proposes that cliticization can circumvent Chain Reduction (Nunes 2004; Kandybowicz 2006; Bošković & Nunes 2007; Harizanov 2014). The intuition in this work is that cliticized elements are invisible to the Chain Reduction algorithm: once a clitic fuses with its host, it no longer sufficiently resembles other elements in the movement chain and hence will not be targeted for deletion. Within this line of research, work is divided on whether this invisibility-causing mechanism should be formalized as DM Fusion (Nunes 2004; Kandybowicz 2006; Bošković & Nunes 2007; following Halle & Marantz 1993) or m-merger (Harizanov 2014; following Matushansky 2006).

The bodies of work on these two Chain Reduction escape mechanisms have only interacted to a limited degree: namely, work on Copy Reduction has mentioned, sometimes in passing, that at least some of the resumptive elements those authors focus on are not clitics, rendering the cliticization story irrelevant (cf. van Urk 2018: §2.3; Georgi & Amaechi 2022: Appendix B). Because of this limited degree of interaction, it is not entirely clear whether we actually need to appeal to both mechanisms—that is, whether the choice between these approaches to resumption can be entirely diagnosed on empirical grounds, or whether the two different approaches have the same empirical coverage and are largely to be distinguished in their theoretical assumptions.

In this paper, I will argue that these two mechanisms can be active within a single language and that they derive resumption in fundamentally different ways. The novel data in this paper will center on movement-derived resumption in Atchan, a Kwa language of Côte d'Ivoire. I will show that Atchan exhibits splits in movement-derived resumptive morphology along two major axes: the position from which the moving element is extracted (subject vs. PP object), and the kind of moving element (lexical DP vs. pronoun). Specifically, both lexical DPs and pronouns are resumed when extracted from PP object position, but only pronouns are resumed in subject extraction. The particularities of these splits and their morphological realizations support the conclusion that two different resumption-causing mechanisms are simultaneously active in Atchan: we must appeal to *both* pronunciation requirements/Copy Deletion (for PP objects) *and* cliticization (for pronominal subjects).

This paper proceeds as follows. In §2, I present background on Atchan and its pronominal system in anticipation of our later discussion of resumption. From there, I introduce a range of Atchan A'-constructions in §3. In this section, I show that Atchan exhibits two distinct patterns of resumption, one reflecting genuine A'-movement and one reflecting simple binding of pronouns. From there, I describe the resumption patterns for direct object extraction in §4 and PP subextraction in §5, arguing that PP subextraction is best captured by appealing to Copy Deletion. Then, in §6, I discuss subject extraction in progressive-aspect clauses, proposing that pronominal subject extraction results from cliticization. Finally, §7 concludes.

2 Atchan and its pronominal inventory

2.1 Language and consultant information

Atchan (also known by the exonym Ébrié; ISO: ebr) is a Kwa (Niger-Congo) language spoken by the Tchaman people, who live in villages located in and near the city of Abidjan, Côte d'Ivoire. The city of Abidjan, Côte d'Ivoire's economic capital, was built upon the traditional homelands of the Tchaman people. Recent estimates suggest that there are around 150,000 Tchaman people (Dido 2018). The vast majority of Atchan speakers, including all of my consultants, also speak French, often in addition to other Ivorian languages.

The novel data discussed in this paper comes from elicitation sessions conducted with five speakers of Atchan living in the village of Anono between 2022-2024. Each primary data example includes a reference code corresponding to the date of the elicitation session and the consultant(s) present.

Atchan exhibits basic SVO word order. It does not permit pro-drop of animate objects:

(2) Context: Q: Did you see Katie?

he:, mē { ηwu nε / ηwi / #ηwu }
yes 1SG see 3SG_{OBV} see.3SG_{PROX}.O see

'Yes, I saw her.'

(20240310_kou)

In addition, it does not exhibit morphological case. Observe the identical form of 'woman' in the sentences below:

(3) a. **ɓje** é-je cō
woman PROG-fry fish

'The woman is frying fish.'

(20230624_kou_jea)

b. akisí wú **ɓje**

A. see woman

'Akissi saw the woman.'

(20230619_kou_jea)

2.2 Pronominal inventory

Discussion of the pronominal inventory is a necessary prerequisite to discussing resumption. To this end, Table 1 provides an inventory of the personal pronouns in Atchan. Note that the active phi-features in the Atchan pronominal system are person, number, and animacy.¹

Several Atchan pronouns take on distinct forms when they occupy canonical subject (S) or canonical object (O) position, i.e., directly adjacent to verbal/auxiliary material. I will introduce the S alternations in more depth in §6.1, when they become relevant. Here, for readability, I note that there are multiple forms in the S cell of several pronouns. The different forms of the 3SG_{OBV} pronoun, and the 3SG_{PROX} forms [é] and [ń], reflect dialect variation, which we can set aside. Meanwhile, the distinction between 3SG_{PROX} [ã] and [é], between 2PL [ǔ] and [hǔ], and between 3INAN [á] and [∅], is based on aspect, as will be discussed in more detail later.

¹ Atchan has two 3SG animate pronouns, glossed 3SG_{PROX} and 3SG_{OBV}. As Jarvis (2024a) discusses, their distributions are constrained by factors like topicality and prominence. The distinction between the two is not crucial for this discussion; the two pattern similarly for resumption. I will provide both pronominal options when relevant.

	s position	o position	elsewhere
1SG	mĕ		
2SG	ε	hε	
3SG _{PROX}	ã/ĕ̃~ń	-ε	mĕ
3SG _{OBV}	nε~nkε		
1PL	lo		
2PL	ĥ/hĥ	hĥ	
3PL	wo		
3INAN	á/∅	∅	ló

Table 1: Personal pronouns in Atchan following [Jarvis 2024a](#), adapted and updated from [Bôle-Richard 1983](#). Forms separated by / are conditioned by aspect; forms separated by ~ are dialectal variants.

One pronoun, 3SG_{PROX}, has a distinct O form, which is conditioned by structural adjacency with the verb. This form, [-ε], phonologically coalesces with the verb, as is illustrated with the following examples:

- (4) a. /wú-ε/ see-3SG_{PROX}.O → [wĭ]
 b. /chrwa-ε/ hit-3SG_{PROX}.O → [chrwε]

I supply the underlying form of the verb for every example of 3SG_{PROX}.O we see.

3 Atchan A'-constructions: Movement and base-generation derivations

In this section, I present introductory data on a range of A'-constructions in Atchan. I expand on previous discussion by [Jarvis \(2024b\)](#) to show that Atchan A'-constructions break into two categories: the derivation of matrix topicalization does not involve movement, while the derivation of focus/*wh*-movement and relativization does involve movement. These differing derivations, furthermore, map onto different resumptive patterns. In this section, I focus on A'-phenomena involving extraction of a lexical DP; we will return to pronominal extraction in later sections.

3.1 Movement: Relativization, focus, *wh*-movement

As was first shown by [Jarvis \(2023; 2024b\)](#), relativization and focus/*wh*-movement in Atchan both involve movement. Converging evidence to this effect comes from island sensitivity and crossover effects.

First, these processes obey standard island constraints on movement. For example, they obey the Complex Noun Phrase Constraint (CNPC, [Ross 1967](#)): relative clauses form islands for relativization (5) and for focus/*wh*-movement (6):

- (5) a. mĕ ŋwu [sε_i k^hĕ̃ ∅_i a pɔ bje]
 1SG see man COMP ASP love woman
 'I saw the man who loves the woman.'
 b. [bje_j k^hĕ̃ se pɔ ∅_j] ĕ̃ pɔ
 woman COMP man love 3SG_{PROX}.S.PFV pretty
 'The woman who the man loves is pretty.'

- c. * [bje k^hé mē ŋwu [sɛ_i k^hé Ø_i a pɔ Ø_j]] é nō
 woman COMP 1SG see man COMP ASP love 3SG_{PROX}.S.PFV pretty
 Intended: ‘The woman such that I saw the man who loves her is pretty.’
 (20240719_hre)

- (6) * t^hábě_j nō ε wu [sɛ_i k^hé Ø_j a pɔ Ø_i]
 who FOC 2SG see man COMP ASP love
 Intended: ‘Who_j did you see the man that they_j love?’ (20240310_kou)

Additionally, these processes in Atchan obey the Coordinate Structure Constraint (CSC), here illustrated with disjunction:

- (7) a. * mē mpɔ [lep^hā_i k^hé kati wu lizi léka Ø_i]
 1SG love person COMP K. see L. or
 Intended: ‘I love the person that Katie saw Lindsay or.’ (20240310_kou)
 b. * t^hábě_i nō ε wu lizi léka Ø_i
 who FOC 2SG see L. or
 Intended: ‘Who did you see Lindsay or?’ (20240721_hre_jea)

Both of these island-sensitivity observations support the conclusion that these constructions involve syntactic movement.

Additional evidence to this effect comes from crossover. These constructions show Strong Crossover (SCO) effects:

- (8) a. * A_j nō Ø_j a dī [lep^hā_i k^hé é_{*i} mpɔ Ø_i]
 A. FOC ASP COP person COMP 3SG_{PROX}.S.PFV love
 ‘Alexandra is a person_i who she_{*i} loves.’
 note: cannot be used to answer the question ‘Who loves herself?’
 b. * t^hábě_i nō é_{*i} mpɔ Ø_i
 who FOC 3SG_{PROX}.S.PFV love
 ‘Who_i does he_{*i} love?’
 (20240719_hre)

Again, this is predicted if *wh*-movement/focus and relativization are derived via movement.

In the discussion to come, we will investigate extraction from three structural positions: direct object, PP object, and subject. It is worth confirming that extraction from each position involves movement. This has already been done for direct objects: see the CNPC data in (5), the the CSC data in (7), and the SCO data in (8). We can also confirm the same point for these other structural positions. We also observe systematically here that resumption does not obviate island violations. In the data below, island-violating sentences are constructed to accord with Atchan’s general resumption patterns (as will be discussed further below): i.e., pronominal subjects are resumed, and all PP objects are resumed. Despite this resumption, island effects still obtain.

For subject position, CSC effects are inapplicable (since our focus is subjects which are both linearly- and structurally-adjacent to the verb). However, subject extraction is sensitive to the CNPC (9) and exhibits Strong Crossover effects² (10):

- (9) a. * kati_j nō mē ŋwu [sɛ_i k^hé Ø_j a pɔ Ø_i]
 K. FOC 1SG see man COMP ASP love
 Intended: ‘It’s Katie who is such that I saw the man who she loves.’

² SCO effects cannot be tested with subject pronoun extraction because moved subject pronouns are necessarily resumed by matching pronouns. As a result, we cannot force long-distance extraction over a higher pronoun.

- b. * mĕ́_j nŏ́ mĕ́ ŋwu [sɛ_i k^hĕ́ ě́_j mpɔ̌ Ø_i]
 3SG_{PROX} FOC 1SG see man COMP 3SG_{PROX}.S.PFV love
 Intended: ‘It’s her who is such that I saw the man who she loves.’
 (20240724_hre)

- (10) kati nŏ́ a di [lep^hã_i k^hĕ́ ã_{*i} mú sálé Ø_i e-bá gɛ jí]
 K. FOC ASP COP person COMP 3SG_{PROX}.S think COMP PROG-FUT win thing
 ‘Katie is a person_i who she_{*i} thinks will win.’
 (20240819_hre)

As we will see extensively later, lexical DPs and pronouns have different morphological reflexes in subject extraction, but both display identical CNPC sensitivity, as shown in (9).

Subextraction of PP objects, too, obeys these same constraints: CNPC data is shown in (11), CSC data in (12), and SCO data in (13):

- (11) * mĕ́ ŋwu [ájá_j k^hĕ́ mĕ́ mpɔ̌ [jípómã_i k^hĕ́ Ø_i a hrɔmã ló_j mán̄ji]]
 1SG see tree COMP 1SG love woman COMP ASP hide 3INAN behind
 Intended: ‘I saw the tree_i such that I love the woman who hid behind it_i.’
 (20240423_kou)

- (12) * mĕ́ ŋwu [ájá_i k^hĕ́ kati hrɔmã [thábrɛ thé léka ló_i mán̄ji]]
 1SG see tree COMP K. hide table under or 3INAN behind
 Intended: ‘I saw the tree_i such that that Katie hid under a table or behind it_i.’
 (20240521_kou)

- (13) aleksandra nŏ́ a di [lep^hã_i k^hĕ́ ě́_{*i} nĕ́ mĕ́_i mán̄ji]
 A. FOC ASP COP person COMP 3SG_{PROX}.S.PFV look 3SG_{PROX} behind
 ‘Alexandra is a person_i who she_{*i} looked behind.’
 (20240801_hre)

Note that resumption systematically fails to rescue the CNPC and CSC island violations here, just as in (9b).

With this, I conclude that relativization and *wh*-/focus movement in Atchan necessarily involve movement in all three structural positions under discussion in this paper.

3.2 Base-generation: Matrix topicalization

In contrast to the A’-constructions discussed in the previous section, matrix topicalization does *not* show hallmarks of movement. This point is made most forcefully by the observation that topicalization does not obey island constraints:

- (14) ʒulian_j, mĕ́ mpɔ̌ [sɛ_i k^hĕ́ ě́_j mpɔ̌ Ø_i]
 J. 1SG love man COMP 3SG_{PROX}.S.PFV love
 ‘Julianne_i, I love the man that she_i loves.’
 (20220802_kou_jea)

This example shows that topicalization does not obey the Complex Noun Phrase Constraint (cf. (6)).

Unsurprisingly, matrix topics are always ‘resumed’ by ordinary, phi-matching pronouns. This is illustrated below for direct object (15a)³, PP object (15b), and subject (15c) topics:

- (15) a. kati-i, mĕ́ { mpwɛ / mpɔ̌ nɛ / *mpɔ̌ Ø }
 K.-TOP 1SG love-3SG_{PROX}.O love 3SG_{OBV} love
 ‘Katie, I love her.’
 (20240717_hre)

³ The 3SG_{PROX} verb form [mpwɛ] is underlyingly /pɔ̌-ɛ/; prenasalization in this example and the next is due to the nasal 1SG subject (see §6.1.2 for more discussion).

- b. *katí-i, mē hrómā { mḗ / *ló / *∅ } mán̄ji*
 K.-TOP 1SG hide 3SG_{PROX} 3INAN behind
 ‘Katie, I hid behind her.’ (20240717_hre)
- c. *katí-i, { é́ / *á / *a } pɔ́ mḗ*
 K.-TOP 3SG_{PROX}.S.PFV 3INAN.S ASP love 1SG
 ‘Katie, she loves me.’ (20240719_hre, 20240801_hre)

On this analysis, these lower elements are simply bound pronouns: we do not need to appeal to any special resumption mechanism here. With this, we will set aside topicalization and turn to Atchan’s movement-derived constructions.

3.3 Roadmap

The next three sections focus on resumption in movement constructions: focus/*wh*-movement and relativization. In these sections, we expand our empirical focus to include both lexical DPs and pronouns. The major generalization is that whether a moving item is resumed depends both on the identity of the moving item (lexical DP or pronoun) and where the item is moving from. These patterns are summarized in Table 2.

	DO	PP object	Subject
Pronoun extraction	∅	phi-matching	phi-matching
Lexical DP extraction	∅	phi-matching	∅
Mechanism	Economy	P-requirement	Cliticization

Table 2: Summary of resumption in Atchan movement constructions, depending on the identity of the extracted element and the position from which the extraction occurs.

In the next three sections, I discuss and analyze resumption possibilities by structural position: direct object extraction is discussed in §4, PP subextraction in §5, and subject extraction in §6. I will argue that direct-object non-resumption is simply due to economy. By contrast, I will propose that resumption in PP subextraction results from a phonological prominence requirement (hence uniformity of subextraction across all DP types). Finally, I will propose that resumption in subject extraction results from cliticization. Subject pronouns, I will argue, are syntactic clitics, but subject lexical DPs are not. This distinction provides an independently-motivated explanation for the subject resumption split.

4 Direct object extraction: No resumption

When a direct object is extracted in Atchan, it cannot be resumed. This holds across A’-movement phenomena (focus/*wh*, relativization) and across DP types (lexical DP, pronoun):⁴

- (16) a. *katí nṓ mḗ { ηwu / *ηwu ne / *ηwi }*
 K. FOC 1SG see see 3SG_{OBV} see.3SG_{PROX}.O
 ‘It’s Katie that I saw.’ (20240310_kou)

⁴ The 3SG_{PROX} possibilities shown here involve the verb form [(η)wi], underlyingly /wu-ε/.

- b. $m\acute{e}$ $n\tilde{o}$ $m\tilde{e}$ { ηwu / $*\eta wu ne$ / $*\eta wi$ }
 3SG_{PROX} FOC 1SG see see 3SG_{OBV} see.3SG_{PROX.O}
 ‘It’s her that I saw.’ (20240310_kou)
- c. $m\tilde{e}$ $mp\omega$ [$leph\tilde{a}$ $k^h\acute{e}$ ε { wu / $*wu ne$ / $*wi$ }]
 1SG love person REL 2SG see see 3SG_{OBV} see.3SG_{PROX.O}
 ‘I love the person who you saw.’ (20240310_kou)
- d. $kati$ $n\tilde{o}$ $m\tilde{e}$ $m\acute{u}$ $s\acute{a}l\acute{e}$ $m\tilde{e}$ { ηwu / $*\eta wu ne$ / $*\eta wi$ }
 K. FOC 1SG think COMP 1SG see see 3SG_{OBV} see.3SG_{PROX.O}
 ‘It’s Katie who I think that I saw.’ (20240719_hre)

Neither pronouns (16b) nor lexical DPs ((16a), (16c)) can be resumed, in either local or long-distance extraction.

Since Atchan does not permit animate object pro-drop, the only way to derive non-resumption in (16) is to genuinely not pronounce a lower movement copy. This is, of course, fully standard; we would say that the Chain Reduction algorithm forces non-pronunciation of the lower DO copy, just as it does in languages like English.

The upshot from this section is that DO non-resumption in Atchan movement chains is just like that of English movement chains. In the next section, we see genuine movement-derived resumption for the first time as we turn to PP subextraction.

5 PP object extraction: Phi-matching resumption

In this section, we focus on the extraction of postpositional objects in Atchan.⁵ When an item is subextracted from a PP, it must be resumed by an element (from the ‘elsewhere’ pronoun series) that matches in all phi-features.

This is shown with relativization⁶ below: we see an inanimate relative-clause head (17b), a singular animate head (17c), and a plural animate one (17d). Each of these relatives involves subject dislocation (of *kati*), which Jarvis (2024b) showed forces a raising relative-clause structure. This means that the element that moves in these relative clauses is the lexical nominal head. We therefore can conclude that the resumptive pronoun we see in each example is a reduced lower movement copy.

- (17) a. $kati$ $hr\omega m\tilde{a}$ [$\acute{a}j\acute{a}/\acute{b}je/\acute{e}mj\acute{e}/h\acute{o}$ $m\acute{a}n\eta i$]
 K. hide tree/woman/women/2PL behind
 ‘Katie hid behind the tree/woman/women/you (pl.).’
- b. $kati_j$ $j\acute{a}_i$ $k^h\acute{e}$ \emptyset_j a $hr\omega m\tilde{a}$ { $l\acute{o}$ / $*m\acute{e}$ / $*\acute{a}j\acute{a}$ / $*\emptyset$ }_i $m\acute{a}n\eta i$
 K. tree COMP ASP hide 3INAN 3SG_{PROX} tree behind
 ‘the tree that Katie hid behind’
- c. $kati_j$ $\acute{b}je_i$ $k^h\acute{e}$ \emptyset_j a $hr\omega m\tilde{a}$ { $m\acute{e}$ / $*l\acute{o}$ / $*\acute{b}je$ / $*\emptyset$ }_i
 K. woman COMP ASP hide 3SG_{PROX} 3INAN woman
 $m\acute{a}n\eta i$
 behind
 ‘the woman that Katie hid behind’

⁵ As in many languages, it is difficult in Atchan to determine whether Atchan ‘postpositions’ are true postpositions of category P or possessed relational nouns. Extracted ‘ordinary’ possessors and postpositional objects are resumed identically, so this difference is not important for us.

⁶ The examples in this section focus on relativization. Speakers disprefer subextraction in focus and *wh*-movement. I suspect that this is because pied-piping is permitted in Atchan focus and *wh*-movement but not in relativization.

- d. $kati_j mje_i \quad k^{h\acute{e}} \emptyset_j a \quad hr\acute{o}m\grave{a} \{ wo / *m\acute{e} \quad / *l\acute{o} \quad / *\acute{e}mje$
 K. woman.PL COMP ASP hide 3PL 3SG_{PROX} 3INAN woman.PL
 $/ * \emptyset \}_i \quad m\grave{a}n\grave{ji}$
 behind
 ‘the women that Katie hid behind’ (20241217_kou)

Comparing these examples, we see the resumptive pronouns we see here must match their antecedents in animacy and number. Note that non-resumption is ungrammatical across the board, as is full lower-copy pronunciation of the lexical DP.

To investigate person-matching effects, we can look at pronominal relativization. In (18), we see obligatory matching of person in addition to number and animacy:

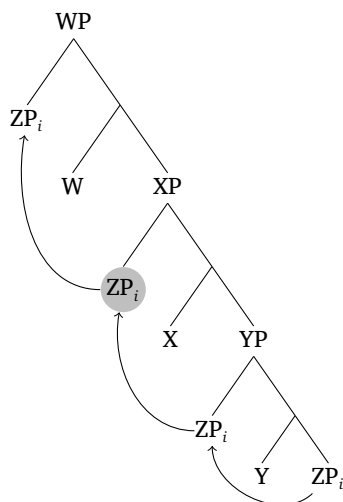
- (18) $h\acute{o} \quad k^{h\acute{e}} \quad m\grave{e} \quad hr\acute{o}m\grave{a} \{ h\acute{o} \quad / *h\epsilon \quad / *wo \quad / *m\acute{e} \quad / *l\acute{o} \quad / * \emptyset \} \quad m\grave{a}n\grave{ji}$
 2PL COMP 1SG hide 2PL 2SG 3PL 3SG_{PROX} 3INAN behind
 ‘you (pl.) who I hid behind’ (20240423_kou)

Jarvis 2024b shows that some Atchan relatives do not support subject dislocation. This includes the pronominally-headed relatives shown here. It is therefore not entirely possible to diagnose whether (18) has a raising structure or a head-external one; additional work is also needed to determine whether these pronominally-headed relatives are restrictive or not. Regardless, I conclude that, insofar as it is testable, person patterns like other phi-features in Atchan resumption: resumption, when it occurs, is fully phi-matching.

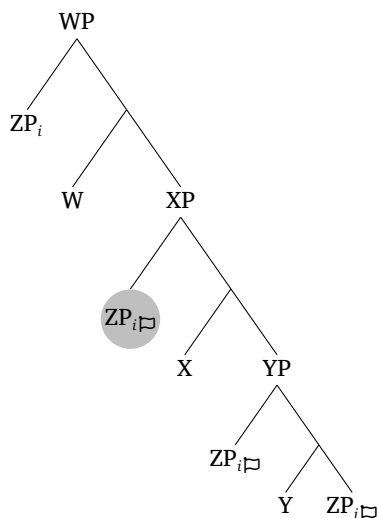
In the next section, I develop an analysis of this obligatory resumption that relies on a pronunciation requirement (P-requirement; Landau 2006; van Urk 2018; Davis et al. 2020; Scott 2021; Georgi & Amaechi 2022; Yip & Ahenkorah 2023). This analysis, I contend, is natural because *all* DPs that extract from within PPs are resumed. Following that discussion, I argue in §5.2 that a cliticization account would not be well-founded.

5.1 A PP P-requirement

A P-requirement-based analysis holds that the requirement to overtly pronounce material in a certain position can outrank economy constraints. That is, a certain position in the syntactic structure can be associated with prosodic prominence (i.e., carry a P-requirement); as a result, an element in that position cannot be fully deleted even when it is a lower copy in a movement chain (Landau 2006). Instead, resumption occurs and is regulated by a Copy Deletion algorithm. A derivation that involves a P-requirement effectively involves three steps, which I schematize here. The first step involves the formation of a movement chain; here, I show an element ZP moving through multiple projections. We will take the Spec,XP position to be the position subject to a P-requirement (schematically illustrated with shading).

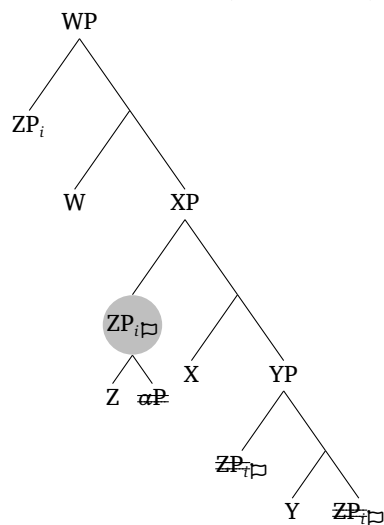
(19) **Step 1: Movement of ZP**

In the second step, the Chain Reduction algorithm applies post-syntactically; it leaves the highest copy of ZP intact and tags all other copies in the ZP movement chain for non-pronunciation (non-pronunciation tag illustrated with \square). In this and subsequent steps' illustrations, for ease of reading, I illustrate the movement chain purely through subscripts.

(20) **Step 2: Chain Reduction**

The third step involves the attempted deletion of each tagged copy. If a tagged copy occupies a position with no P-requirement, it is fully deleted due to economy (and non-resumed); this deletion is indicated here with double strikeout. However, if a tagged copy occupies a position with a P-requirement (here, the Spec,XP copy), full deletion is not permitted. Instead, a second Copy Deletion algorithm kicks in. This algorithm deletes some portion of ZP's internal structure, prompting spellout only of some reduced portion of ZP. In the diagram below, I illustrate this as deletion of an internal phrasal portion αP inside ZP:

(21) Step 3: Economy and Copy Deletion



The result, then, is full spellout of the Spec,WP copy of ZP, along with reduced resumptive spellout of the Spec,XP copy (i.e., in this diagram, spellout just of the head Z).

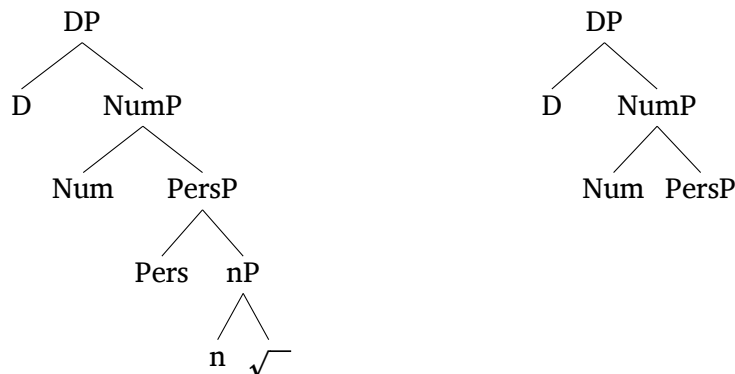
To apply this analysis to Atchan, we must claim that the complement of P in Atchan is subject to a P-requirement. That is, when a lower movement copy occurs in the complement of P, it will not be fully deleted, but rather merely partly reduced. In fact, it is not cross-linguistically unusual for the complement-of-P position to be subject to a P-requirement. Georgi & Amaechi (2022) propose an identical P-requirement in the same position for Igbo; Scott (2021) also proposes a P-requirement in the same position in Swahili, though for different reasons related to phonological minimality restrictions.

Appealing to a P-requirement helps us explain *that* resumption occurs, but is the Copy Deletion algorithm that determines how much internal structure is deleted in partially-deleted copies. In Atchan, of course, we *do* see some evidence of partial deletion. The resumptive forms we see are (unsurprisingly) pronouns; we saw this in the ungrammaticality of full lexical-DP pronunciation (of ‘tree’ or ‘woman’ or ‘woman’) in the complement of P in (17b-17d). However, the degree of partial deletion that Copy Deletion enforces—i.e., the degree of resumptive pronouns’ phi-faithfulness—has been shown to vary across languages. For instance, in Dinka resumptive pronouns expone only number and do not match their antecedents in person (van Urk 2018); meanwhile, in Igbo resumptive pronouns are invariant, matching their antecedents in neither person nor number (Georgi & Amaechi 2022). To explain this, we must elaborate exactly what the Copy Deletion algorithm does when it applies to a lower movement copy in the complement of P in Atchan, and how that differs across languages.

For Atchan, since resumptive pronouns are fully phi-faithful, we need appeal to only an extremely simple version of the Copy Deletion algorithm: namely, an algorithm that deletes lexical roots and perhaps *n*P but nothing else. I follow van Urk, Scott, and Geori & Amaechi in assuming an articulated DP structure, in which pronouns and lexical DPs have a similar functional structure but lexical DPs contain an additional root projection (or multiple such projections). An example set of structures for lexical DPs (22a) and pronouns (22b), from Georgi & Amaechi (2022):(47-48), is shown below (though the account here does not depend on any particular structure⁷):

⁷ For Atchan, we might also want an additional animacy-related projection. I do not dwell on this here.

- (22) a. Lexical DP structure (G&A (47)) b. Pronominal structure (G&A (48))



With this kind of structure assumed, we want to posit that the Copy Deletion algorithm in Atchan enforces deletion of only the lexical root and perhaps *n* projections when present, maintaining the rest of the structure. The result will be that, when Copy Deletion kicks in in PP subextraction, lower lexical DPs will be shaved down and pronounced as pronouns, but the pronoun will match its antecedent in person and number (and animacy), since Pers and Num are not deleted. Copy Deletion in Atchan, by design, will be vacuous when applied to lower copies of moved pronouns; pronouns lack roots, so they will be untouched by the Copy Deletion algorithm and surface fully intact.

Note that the Atchan data can be captured by existing cross-linguistic views of the Copy Deletion algorithm (van Urk 2018; Georgi & Amaechi 2022), with at most minor modifications. These proposals provide theories on which there is a single, cross-linguistically-unified Copy Deletion algorithm, and cross-linguistic differences in resumptive phi-faithfulness result from cross-linguistic differences in the (pro)nominal structure to which the Copy Deletion algorithm applies.

A natural extension of van Urk's proposed algorithm can capture the Atchan data. In particular, van Urk proposes that Copy Deletion can only target phases. He additionally proposes that languages differ regarding whether the head that expones person features is phasal. If it is, the person-exponing head can be deleted by Copy Deletion, yielding person-invariant resumptives (as in Dinka). In contrast, if it is not, it cannot be targeted by Copy Deletion, yielding person-faithful resumptives (as in Seereer, van Urk argues, citing data from Baier 2014). Adopting this view, we could claim that Atchan is effectively the same as Seereer: Atchan pronouns have no internal phase boundaries, so Copy Deletion of pronouns is vacuous. The only additional thing we must add to the analysis is an explicit claim that, in lexical DPs, the root *can* be deleted by Copy Deletion. This derives the desired fully phi-faithful resumption in Atchan.

The Atchan pattern is not captured as smoothly by the account that Georgi & Amaechi develop, but minimal modifications to their system can still capture it. In particular, Georgi & Amaechi propose that the Copy Deletion algorithm involves obligatory deletion of the lowest phrasal projection within a nominal's internal structure. In the structures shown in (22), for examples, this would constitute deletion of *nP* within lexical DPs (i.e., faithful resumption of person and number) and deletion of PersP within pronouns (i.e., number-faithfulness and person-invariance). Cross-linguistically, Georgi & Amaechi propose that languages can 'bundle' phi-features onto a single syntactic head. This can lead to *higher* degrees of phi-invariance in resumption. For example, if a language bundled number and person into a single Num + PersP, in pronouns that entire Num + PersP could be deleted by Copy Deletion to yield person- and number-invariant resumptives.

The system that Georgi & Amaechi develop, the authors explicitly note (p.994), cannot derive fully phi-faithful resumption of moving pronouns, since some internal projection

within the pronoun must be deleted. Accordingly, as they develop it, the system cannot capture the Atchan data. Ultimately, however, the issue seems surmountable. For instance, we could assume the possibility of head movement within the DP prior to Copy Deletion. That is, Georgi & Amaechi could plausibly account for this data by assuming that in Atchan pronouns, Pers head-moves to Num. Following that, the lower PersP could be deleted by Copy Deletion with no loss in phi-faithfulness. I conclude, therefore, that the Atchan data can be captured by at most minor modifications of existing Copy Deletion implementations.

5.2 Discussion, and against cliticization approaches

The upshot of this section has been to argue that P-requirements are a useful mechanism to capture one resumption pattern in Atchan. Namely, the uniformity of resumption across *all* DPs in PP subextraction lends itself naturally to a P-requirement-based analysis.

It is also worth mentioning—as van Urk does for Dinka and Georgi & Amaechi do for Igbo—that the resumptive pronouns we see in PP subextraction are phonologically heavy and separable. That, is they do *not* look like clitics, making a cliticization-based analysis (along the lines of Nunes 2004; Kandybowicz 2006; Bošković & Nunes 2007) less compelling. In PP subextraction, we see the ‘elsewhere’ set of Atchan pronouns; there is no evidence that these ‘elsewhere’ pronouns are clitics, phonologically or syntactically. Phonologically, these ‘elsewhere’ forms are all [CV], meeting Atchan’s wordhood minimality requirement (Russell 2024). Syntactically, these are the forms that surface in left-peripheral positions (23a) [repeated from (16b) with modified emphasis], can be separated from their following postposition by focus-sensitive particles like the additive *l* ‘too’ (23b), and can be coordinated (23c):

- (23) a. **mě́** nō mē ŋwu
 3SG_{PROX} FOC 1SG see
 ‘It’s her that I saw.’ (20240310_kou)
- b. mē hrōmā [**mě́** lō mǎŋji]
 1SG hide 3SG_{PROX} too behind
 ‘I hid behind her too.’ (20240721_hre_jea)
- c. mē nchrwa [**mě́** léka nɛ]
 1SG hit 3SG_{PROX} or 3SG_{OBV}
 ‘I hit either him_i or her_j.’ (20240724_hre)

This evidence suggests that a cliticization-based analysis of Atchan PP subextraction resumption would not be well-founded. Instead, this pattern is best-suited for an analysis that relies upon P-requirements and Copy Deletion, as I have developed here.

6 Subject extraction: Split resumption

In this section, I turn to discuss resumption of extracted subjects. Here, I will argue, we should appeal to different analytical tools. In this position, we observe a split between pronoun extraction and lexical DP extraction: pronouns are resumed but lexical DPs are not. I will link this behavior to the observation that (some) pronominal subjects do indeed display a range of clitic-like properties, in contrast to the ‘elsewhere’ forms. For this reason, I argue that a P-requirement analysis of pronominal subject extraction is untenable, and I instead develop a cliticization-based analysis of subject resumption.

	s form	elsewhere
1SG	—	mĕ
2SG	ε	hε
3SG _{PROX}	ã/ĕ	mĕ
3SG _{OBV}	—	nε
1PL	—	lo
2PL	ĩ/hĩ	hĩ
3PL	—	wo
3INAN	á/∅	ló

Table 3: Elsewhere and s pronouns in Atchan. The absence of a morphologically distinct s form is indicated with ‘—’.

This section begins by presenting background on Atchan subject pronouns in §6.1. From there, I present the core subject resumption data in §6.2. In §6.3, I argue against using a Copy Deletion to derive this pattern. Instead, I develop a cliticization-based analysis in §6.4.

6.1 Subject pronouns background

In this section, I discuss background on the syntax and forms of Atchan subject pronouns. The overall argument of this section, in accordance with Russell 2024, is that *all* Atchan subject pronouns pattern differently from subject lexical DPs, in that pronouns are more closely connected with verbal and aspectual material than lexical DPs are; and furthermore that singular subject pronouns are yet more closely connected with verbal/aspectual material than plural subject pronouns are. That is, the picture that emerges is one on which subject pronouns have traits of phonological and syntactic clitics. I begin by discussing subject pronoun forms in §6.1.1 and then discuss subject pronouns more broadly in §6.1.2.

6.1.1 Dedicated s pronoun forms

Several Atchan pronouns—2SG, 3SG_{PROX}, 2PL, and 3INAN—have designated forms that I term s (‘subject’) forms. These forms are indicated in Table 3, a modified version of Table 1. Note that all of these s forms have a [V] shape. Russell 2024 argues that Atchan’s wordhood minimality requirement is [CV] and that these reduced s forms are, therefore, phonological clitics.

These s forms surface only when the pronoun occupies canonical subject position, i.e., when it is adjacent with the verb or preverbal auxiliaries/negation. Examples of 3SG_{PROX}·s before verbs and auxiliaries are shown below:

(24) 3SG_{PROX} s pronoun forms

- a. ã p^hí dja
 3SG_{PROX}·s laugh V.PART
 ‘She is laughing.’

(20240720_hre_jea)

- b. ã m^á mp^hí dja
 3SG_{PROX}·s FUT laugh V.PART
 ‘She will laugh.’

(20240807_hre)

In contrast, if the subject pronoun is separated from the verb/auxiliary, e.g. by a focus-sensitive particle or a relative clause, the *s* form is illicit. Below, we see the elsewhere 3SG_{PROX} form [mɛ́]:

- (25) 3SG_{PROX} elsewhere pronoun forms
- a. [{ mɛ́ / *ã } bre] ã mp^hí dja
 3SG_{PROX} 3SG_{PROX.S} only 3SG_{PROX.S} laugh V.PART
 ‘Only she is laughing.’ (20240724_hre_jea)
- b. { mɛ́ / *ã } k^hɛ́ ã mp^hí dja
 3SG_{PROX} 3SG_{PROX.S} COMP 3SG_{PROX.S} laugh V.PART
 ‘she who is laughing’ (20240806_kou_jea)

This provides evidence of these *s* forms’ syntactic weakness (cf. [Cardinaletti & Starke’s \(1999\)](#) discussion of weak pronouns, a.m.o.). Note also that these *s* forms cannot straightforwardly be analyzed as mere exponents of nominative case, since they are conditioned by direct adjacency with the verb/auxiliary.

The distribution and nature of *s* forms also specifically support a view on which subject pronouns are tightly connected with aspect. Most obviously, subject pronouns *can* form aspectual portmanteaux, but lexical DPs cannot. The alternations between the multiple cells in the *s* column of [Table 3](#) are all conditioned by aspect.⁸ For 3SG_{PROX}, [ɛ́] occurs in perfective aspect, and [ã] in other aspects; for 2PL, [ɛ́] occurs in non-progressive aspect, with the elsewhere form [hɛ́] in progressive aspect; and for 3INAN, [á] occurs in non-progressive aspect, and [∅] in progressive aspect. The 3SG_{PROX} alternation was shown above in (24). The similar 2PL contrast is shown below:

- (26) a. hɛ́ e-p^hí dja
 2PL PROG-laugh V.PART
 ‘You (pl.) are laughing.’
- b. ɛ́ p^hí dja
 2PL.S laugh V.PART
 ‘You (pl.) laughed.’ (20240719_hre)

In contrast, lexical DPs in Atchan do not form aspectual portmanteaux.⁹

These data provide evidence that *s* forms are phonologically and syntactically weak. However, I want to make a broader claim that Atchan subject pronouns (in canonical subject position) are *all* syntactic clitics, even when they are not *s* forms. To this end, in the next section, I provide additional evidence that *all* subject pronouns associate more closely with aspectual/verbal material than lexical DPs do.

6.1.2 Subject pronouns across the paradigm

In this section, I extend beyond *s* forms to argue that *all* subject pronouns associate more tightly with aspectual/verbal material than lexical DPs do, and that singular subject pronouns associate yet more tightly than plural subject pronouns do.

⁸ The analysis of these *s* forms as pronouns does not accord with [Nevins’s \(2011\)](#) claim that pronouns are necessarily TAM-invariant. Note, however, that if Atchan subject pronouns were analyzed as agreement, this would constitute an instance of agreement only with (null) pronouns, which [Nevins and Weisser \(2019\)](#) claim is unattested.

⁹ As I will discuss in §6.2.2, exponence of IPFV aspect with L-tone verbs involves a H tone that can dock on lexical DP subjects. Note that this H-tone docking differs from the portmanteau forms I discuss here in that the docking is fully phonological predictable.

One phonological diagnostic for differences between subject pronouns and lexical DPs comes from nasalization phenomena. As first observed by [Bôle-Richard \(1983\)](#) and extensively discussed by [Russell \(2024\)](#), subject pronouns trigger long-distance nasalization phenomena that lexical DPs do not. The most basic data is that nasal subject pronouns in Atchan (1SG, 3SG_{PROX}, 2PL) nasalize verbs that they occur directly adjacent to (27), while nasal lexical DPs do not (28). This is shown below, with the underlyingly oral verb /bá/ ‘come’:¹⁰

- (27) a. mẽ ma
1SG come
‘I came.’
b. ě mâ
3SG_{PROX}.S.PFV come
‘3sg came.’
c. ě mâ
2PL.S come
‘You (pl.) came.’

- (28) lep^hã ãa
person come
‘A person came.’

(Russell 2024:(25))

The sum of this data, pairing s-specific aspectual portmanteau forms and the broader nasalization pattern, suggests some different status between pronouns and lexical DPs: pronouns exhibit aspectual-related distinctions that lexical DPs do not, and they can condition verbal changes that lexical DPs cannot. Note that that 1SG data reveal that this nasalization process does not depend on the presence of a distinct s form.

An extension of the nasalization pattern also provides evidence for pronoun-internal distinctions: namely, singular pronouns associate yet more tightly with aspectual and verbal material than plural pronouns do. The key observation here from [Russell \(2024\)](#), building on [Bôle-Richard’s \(1983\)](#) description, is that singular pronouns trigger a long-distance kind of nasal spreading that plural pronouns do not. Namely, nasal singular pronouns cause full nasalization of auxiliary material, while nasal 2PL.S only triggers (pre)nasalization of the auxiliary that linearly follows it:

- (29) a. ã má nẽ má
3SG_{PROX}.S FUT NEG come
‘3sg will not come.’
b. ě m’á lé ãa
2PL.S FUT NEG come
‘You (pl.) will not come.’

(Russell 2024:(1b-1c))

Here, the underlying form of the auxiliary and verbal material is /bá lé bá/; we see that the 3SG subject nasalizes all auxiliary material (and the initial C of the verb), while the 2PL subject only nasalizes the initial C of the future auxiliary. The analysis of this long-distance nasalization phenomenon is complex (and I refer the reader to [Russell \(2024\)](#) for more discussion), but it suffices for our purposes to note Russell’s proposal that this phenomenon and related patterns are best analyzed by positing some morphosyntactic difference between singular and plural pronouns.

This distinction between singular and plural pronouns is also reinforced by an additional observation about aspect. Specifically, while progressive aspect in Atchan is ordinarily

¹⁰ All verbal tone alternations here are phonologically predictable; see §6.5.

exponed by a prefix [e-] (discussed more below), singular pronouns and [e-] cannot co-occur (Russell 2023). This illustrated with 1SG and 3SG_{PROX} forms below. Meanwhile, observe in (56) that plural pronouns like 3PL do not fuse with [e-].

- (30) a. mē (*e-) p^hí dja
 1SG PROG laugh V.PART
 ‘I am laughing.’
 b. ā (*e-) p^hí dja
 3SG_{PROX}.S PROG laugh V.PART
 ‘She is laughing.’

- (31) wo e-p^hí dja
 3PL PROG-laugh V.PART
 ‘They are laughing.’

(20240720_hre_jea)

This transparently suggests an additional degree of connection between singular pronouns and progressive aspect that does not occur with plural pronouns. Note that this fusion process occurs with *all* singular pronouns: 1SG lacks a distinct s form but still fuses with the progressive.

The conclusion of this section thus is that pronouns (both singular and plural, and regardless of the presence of distinct s forms) associate with aspectual/verbal material in ways that lexical DPs do not. Later, I will formalize this relationship between pronouns and aspect by positing that pronouns undergo morphological operations with Asp.

6.2 Resumptive split data

In this section, I provide the core data on subject (non-)resumption in Atchan. The form of subject resumption is entwined with aspect in Atchan, so an understanding of the morphophonological realization of aspect is crucial for investigating aspect. Accordingly, I first discuss progressive-aspect clauses in §6.2.1, then discuss clauses with tonally-exponed aspect in §6.2.2. My discussion of Atchan aspect morphology is based on Russell’s (2023) characterization, which in turn builds on descriptions by Bôle-Richard (1983) and Dido (2018).

6.2.1 Resumptive split: Progressive aspect

Progressive aspect in Atchan is ordinarily segmentally exponed, as a prefix [e-] PROG that prefixes onto verbs and auxiliaries:

- (32) a. mɔja e-p^hí dja
 M. PROG-laugh V.PART
 ‘Moya is laughing.’
 b. mɔja e-bá p^hí dja
 M. PROG-FUT laugh V.PART
 ‘Moya will laugh.’

(20240720_hre_jea)

This [e-] prefix exhibits tonal polarity (Russell 2023): it always bears the opposite tone to its host. Atchan has two underlying contrastive tones, H and L. Throughout this section, I use *p^hí dja* ‘laugh’ as an example H-tone verb, and *la nākā* ‘pray’ as an example L-tone verb. The tone of the progressive prefix always is the opposite of its host: when it affixes to ‘laugh’, it bears a L tone (32a); when it affixes to ‘pray’, it bears a H tone (33).

- (33) mɔja é-la nākā
 M. PROG-pray God
 ‘Moya is praying.’ (20240521_kou)

In singular progressive fusion—the only time when the progressive does not surface as [e-]—the tone on the singular pronominal subject is polar to that of the verb:¹¹

- (34) a. { ã / *ã e- } p^{hí} dja
 3SG_{PROX}.S 3SG_{PROX}.S PROG laugh V.PART
 ‘She is laughing.’
 b. { á / *ã é- } la nākā
 3SG_{PROX}.S 3SG_{PROX}.S PROG pray God
 ‘She is praying.’ (20240720_hre_jea)

This intuitively maintains the progressive’s tonal polarity.

Turning now to subject extraction in progressive clauses, we see that extracted pronominal subjects in progressive-aspect clauses are obligatorily resumed by fully phi-matching pronouns. This is illustrated below:

- (35) a. mĕ nō { ã / *∅ e- } p^{hí} dja
 3SG_{PROX} FOC 3SG_{PROX}.S PROG laugh V.PART
 ‘It’s her who is laughing.’ (20240310_kou)
 b. wo nŏ { wo e- / *ã / *∅ e- } p^{hí} dja
 3PL FOC 3PL PROG 3SG_{PROX}.S PROG laugh V.PART
 ‘It’s them who are laughing.’ (20240423_kou)
 c. hŏ nō { hŏ e- / *wo e- / *ã / *∅ e- } p^{hí} dja
 2PL FOC 2PL PROG 3PL 3SG_{PROX}.S PROG laugh V.PART
 ‘It’s you (pl.) who are laughing.’ (20240423_kou)

Here, we see that resumption is obligatory, and that only full phi-matches are permitted.

In contrast, lexical DP subjects are not resumed, in both local (36) and (for at least some speakers) long-distance (37) subject extraction:

- (36) a. jíɔ nō { ∅ e- / *ã } p^{hí} dja
 child FOC PROG 3SG_{PROX}.S laugh V.PART
 ‘It’s the child who is laughing.’
 b. émjó nō { ∅ e- / *wo e- } p^{hí} dja
 child.PL FOC PROG 3PL PROG laugh V.PART
 ‘It’s the children who are laughing.’ (20240423_kou)
- (37) kati nō mĕ mú sále { ∅ e- / *ã } p^{hí} dja
 K. FOC 1SG think COMP PROG 3SG_{PROX}.S laugh V.PART
 ‘It’s Katie who I think is laughing.’ (20240723_kou_jea)¹²

This is, of course, the complete inverse of pronominal extraction; compare (35a) to (36a), and (35b) to (36b). This provides our core empirical generalization: in subject extraction, pronouns are resumed but lexical DPs are not.

¹¹ Throughout this section, when displaying these examples with multiple subject possibilities that differ in nasality, I omit marking pronoun-triggered prenasalization on the verb.

¹² My data suggests some interspeaker variation on this judgment: namely, one younger speaker accepts *ā*-resumption here, while two older speakers (whose judgments are the the ones mainly reported in this paper) systematically reject it.

Strictly speaking, there are two ways to analyze the apparent non-resumption of lexical DP subjects. We could either describe this as straightforward non-resumption, *or* we could describe this as phonologically-null inanimate resumption. That is, in progressive-aspect clauses, inanimate subjects are in general null:

- (38) ∅ e-né
 PROG-melt
 ‘It is melting.’ (20241217_kou)

One could, therefore, analyze the data in (36) in terms of resumption with a (null) inanimate pronoun. (See Yip & Ahenkorah 2023 for discussion of inanimate subject resumptive forms in related Akan.)

To rule out this analysis, I turn in the next two subsections to Atchan’s other two aspects, perfective and imperfective. Both of these aspects are exponed tonally, and subject extraction in these aspects maintains a resumption distinction between pronouns and lexical DPs. Intriguingly, we see an additional (invariant) segmental reflex of extraction in lexical-DP extraction. This reflex, however, is demonstrably *not* an inanimate pronoun, enabling us in general to rule out a story based on inanimate resumption for lexical DP subjects.

6.2.2 Resumptive split: Tonal aspect

The signature of imperfective aspect in Atchan is tonal polarity (i.e., tonal contrast) between the subject and the verb, realized as a floating tone that docks onto the subject. (For this introduction, I focus on underlyingly L-tone subjects like /mɔja/ ‘Moya’.) That is, if the verb is H-toned, a L-toned subject surfaces with its underlying L tone in the imperfective. By contrast, if the verb is L-toned, the final vowel of the subject takes on a H tone in the imperfective. This is illustrated below:

- (39) Imperfective aspect
- a. mɔja p^hí dja áká k^húmbɛ̃
 M. laugh V.PART day all
 ‘Moya laughs every day.’
- b. mɔjá la nǎká áká k^húmbɛ̃
 M. pray God day all
 ‘Moya prays every day.’ (20240521_kou)

In (39a), the verb /p^hí (dja)/ ‘smile’ is H-toned, and the verb /la (nǎká)/ ‘pray’ is L-toned. In (39b), the final vowel of /mɔja/ is raised to H, exponing the imperfective.

With L-tone verbs, the imperfective’s H tone always docks onto the final vowel of the subject DP. This docking process is insensitive to the internal syntactic structure of the subject: for instance, it can dock to lexical N’s like ‘chicken’ in (40a), underlyingly L-toned /kɔcɛ̃/, and adjectives like ‘black’ in (40b), underlyingly L-toned /mru/.

- (40) Imperfective aspect
- a. kɔcɛ̃ fe áká k^húmbɛ̃
 bird fly day all
 ‘The bird flies every day.’
- b. kɔcɛ̃ mrú fe áká k^húmbɛ̃
 bird black fly day all
 ‘The black bird flies every day.’ (20240805_kou)

I conclude that this H-tone docking onto the subject is purely phonological and derivationally late.

Meanwhile, the signature of perfective aspect is verb tone lowering. If the verb is underlyingly H-toned, the verb's tone is lowered to surface as L. If the verb is underlyingly L-toned, no change occurs between underlying and surface forms (i.e., it is not possible to lower beyond L). This is illustrated below:

(41) Perfective aspect

a. mɔja p^{hi} dja ěmpi
M. laugh V.PART one.day.away
'Moya laughed yesterday.'

b. mɔja la jākā ěmpi
M. pray God one.day.away
'Moya prayed yesterday.'

(20240521_kou)

In (41a), the H tone of /p^{hi}/ is lowered to [p^{hi}]. In (41b), the underlyingly L-toned verb cannot be lowered any further and surfaces with an L tone.

In subject extraction, just as in the progressive, pronouns are resumed phi-faithfully. This is shown for imperfective aspect in (42) and for perfective aspect in (43):

(42) Imperfective aspect

a. m^é n^ó { ã / *á / *a / *∅ } p^{hi} dja áká k^húmr^ẽ
3SG_{PROX} FOC 3SG_{PROX}.S 3INAN.S ASP laugh V.PART day all
'It's her who laughs every day.'

b. wo n^ó { wo / *ã / *á / *a / *∅ } p^{hi} dja áká
3PL FOC 3PL 3SG_{PROX}.S 3INAN.S ASP laugh V.PART day
k^húmr^ẽ
all
'It's them who laugh every day.'

c. h^ó n^ó { ́ / *wo / *ã / *á / *a / *∅ } p^{hi} dja
2PL FOC 2PL.S 3PL 3SG_{PROX}.S 3INAN.S ASP laugh V.PART
áká k^húmr^ẽ
day all
'It's you (pl.) who laugh every day.'

(20240805_kou)

(43) Perfective aspect¹³

a. m^é n^ó { é / *á / *a / *∅ } p^{hi} dja
3SG_{PROX} FOC 3SG_{PROX}.S.PFV 3INAN.S ASP laugh V.PART
ěmpi
one.day.away
'It's her who laughed yesterday.'

b. wo n^ó { wo / *é / *á / *a / *∅ } p^{hi} dja
3SG_{PROX} FOC 3PL 3SG_{PROX}.S.PFV 3INAN.S ASP laugh V.PART
ěmpi
one.day.away
'It's them who laughed yesterday.'

¹³ In the perfective, as discussed below, H-tone subjects spread their tone onto the verb. For simplicity of presentation, I do not illustrate that tone spreading in these examples.

- c. h́ ń { ́ / *wo / *é / *á / *a / *∅ } p^hi
 3SG_{PROX} FOC 2PL.S 3PL 3SG_{PROX}.S.PFV 3INAN.S ASP laugh
 dja ěmpi
 V.PART one.day.away
 ‘It’s you (pl.) who laughed yesterday.’ (20240805_kou)

Interestingly, a segmental reflex, [a], arises in subject lexical-DP extraction in these two aspects. The tone of this [a] relates to the clause’s aspect. That is, in imperfective aspect, the polar tone cannot dock on the extracted subject (presumably because the extracted subject is not close enough for phonological tone docking to occur). Instead, this [a] bears the polar tone:

(44) Imperfective aspect

- a. mɔja ń á la nākā áká k^húmbre
 M. FOC ASP pray God day all
 ‘It’s Moya who prays every day.’
 b. mɔja ń a p^hi dja áká k^húmbre
 M. FOC ASP laugh V.PART day all
 ‘It’s Moya who laughs every day.’ (20240727_kou)

Here, in contrast to (39), we see the subject /mɔja/ surface with its underlying L tone across the board. With the L-tone verb /la/, aspect’s floating tone is not lost: H-toned [á] in (44a) reflects the polar H tone of the imperfective. By contrast, in (44b), low-toned [a] is polar to H-toned /p^hi/.

Meanwhile, in the perfective, [a] is invariably L-toned, no matter the underlying tone of the verb:

(45) Perfective aspect

- a. mɔja ń a la nākā ěmpi
 M. FOC ASP pray God one.day.away
 ‘It’s Moya who prayed yesterday.’
 b. mɔja ń a p^hi dja ěmpi
 M. FOC ASP laugh V.PART one.day.away
 ‘It’s Moya who laughed yesterday.’ (20240727_kou)

Intuitively, the across-the-board L tone of [a] here reflects the notion that the perfective involves tone lowering.

I will present a positive proposal for the status of [a] in §6.5. In this section, I want merely to note that this [a] is *not* Atchan’s inanimate pronoun. In tonally-exposed aspects, the 3INAN.S pronoun is H-toned [á], while the extraction marker [a] is L-toned (which takes on H sometimes to for tonal contrast in the imperfective). That the two markers are not the same can be clearly shown in perfective aspect:

(46) Perfective aspect

- a. á ń ěmpi
 3INAN.S melt one.day.away
 ‘It melted yesterday.’
 b. ěngwé_i n̄ ∅_i a n̄ ěmpi
 shea.butter FOC ASP melt one.day.away
 ‘It’s the shea butter that melted yesterday.’ (20241217_kou)

Here, we see the H-toned 3INAN.S pronoun in (46a); note that perfective aspect does not alter the tone on this pronoun. In contrast, the extraction marker is L-toned in (46b). The tonal distinction between these two markers provides evidence that they are not one and the same (contra Jarvis 2023). More broadly, we can observe that the extraction marker [a] is not a pronoun that occurs elsewhere in Atchan; if the extraction marker were a resumptive pronoun, it would violate McCloskey’s (2002) generalization that resumptive pronouns in a language are always also ordinary pronouns. Instead, I conclude (contra Dido 2018) that the extraction marker [a] is not a resumptive pronoun, but rather something else (and will return to this in §6.5). With this, I maintain the generalization that extracted subject pronouns in Atchan are phi-faithfully resumed, while extracted subject lexical DPs are *not* resumed by resumptive pronouns.

In the next two subsections, I turn to the analysis of this subject resumptive split. In §6.3, I argue that an analysis based in P-requirements, as I proposed for PP subextraction, cannot naturally be extended to account for the subject data. Instead, I argue in §6.4 that a cliticization account can better capture this data.

6.3 Against a P-requirement approach

In this section, I argue that it is not possible to develop a non-stipulative P-requirement-based analysis of the subject resumption facts. The largest challenge of all comes from the fact the reflex of lexical-DP subject movement is not a pronoun that otherwise exists in Atchan’s pronominal inventory; it is fundamentally not clear how we could apply Copy Deletion to yield a form that does surface in non-extraction contexts. Even setting this aside, this kind of analysis would encounter multiple other issues. One of these issues is that the resumption associated with lexical DPs varies by position: if we use Copy Deletion to derive the PP subextraction resumption pattern, we cannot *also* use the same Copy Deletion algorithm, applying in the same way, to derive a different empirical pattern for subjects. A final problem is theory-internal: the Atchan data break all existing proposals of the Copy Deletion algorithm across languages.

Beginning with the theory-internal issue, I note that no existing formalization of the Copy Deletion algorithm in the literature can derive a pattern on which pronouns are resumed but lexical DPs are not. In general, Copy Deletion-based analyses are designed to capture *similarities* in resumption between pronouns and lexical DPs. The only existing account that is designed to capture resumption differences between lexical DPs and pronouns is the account of Georgi & Amaechi (2022). Unfortunately for us, their account runs in the wrong direction: the account that they develop explicitly predicts that lexical DPs must be resumed with at least as much phi-faithfulness as pronouns. That is, it should be impossible to find a language that resumes pronouns with phi-faithful pronouns but does not resume lexical DPs with phi-faithful pronouns.¹⁴ However, this is not what we have observed for Atchan, where pronouns are resumed faithfully but lexical DPs are not.

Note that other extant versions of the Copy Deletion algorithm do not fare better. For example, van Urk’s (2018) account also can capture only a limited range of resumptive shapes across languages: either resumptive pronouns that fully phi-match in person and number, or resumptive pronouns that phi-match in number and are person-invariant. Again, the (non-)resumption of Atchan lexical DPs does not show number sensitivity. Scott’s (2021) analysis also derives a similarly restricted range of phi-mismatches (though she does not discuss this explicitly). In sum, then, no existing implementation of the Copy Deletion facts can derive the Atchan subject extraction facts. Should we, then, develop

¹⁴ See ‘?’₂ and ‘?’₃ in Georgi & Amaechi’s (2022) Table 4, and related discussion on p.999.

a new version of the Copy Deletion algorithm that can capture this pronoun/lexical DP split?

I argue that we should not. The first reason for this is that I highly doubt that such an account can be successful. This is because I have already argued that we *should* appeal to Copy Deletion to capture the PP subextraction data. That is, as discussed above, we need a version of Copy Deletion that can generate resumptive pronouns that fully phi-match their antecedents (whether lexical DPs or pronouns). If we take the Copy Deletion algorithm to be a language-wide algorithm (as [Georgi & Amaechi \(2022\)](#) explicitly do), we can only use it to derive one degree of phi-mismatch in resumptive pronouns, across the entire language. We cannot use it to do minimal tree-trimming for PP subextraction and also to trim lexical DP subjects into oblivion. Taking a language-wide perspective, it seems that the best we could do would be to posit *two* Copy Deletion algorithms for Atchan: one that applies in PP subextraction, and a second that applies in subject extraction. While possibly implementable from a technical perspective, this move would make the analysis almost entirely stipulative—it seems undesirable to ‘permit’ post-syntactic algorithms to make explicit reference to specific syntactic positions.

Most fundamentally, it isn’t clear that the lexical-DP extraction pattern should at all be described using the language of resumption. That is, we do not see resumptive pronouns in lexical-DP subject extraction. Given that, I argue that Copy Deletion—which definitionally shaves down lower movement copies to create resumptive pronouns—is simply not the right tool for the job.

For these reasons, I conclude that we cannot straightforwardly appeal to a subject P-requirement to derive the subject resumption data. Instead, I propose that the pronominal subject resumption data are best captured by appealing to cliticization. In the next section, I illustrate how a cliticization account of Atchan subject pronouns could capture the pronoun-only resumption data, exploiting the previous discussion of relationships between pronouns and material in the verbal spine.

6.4 In support of a cliticization approach

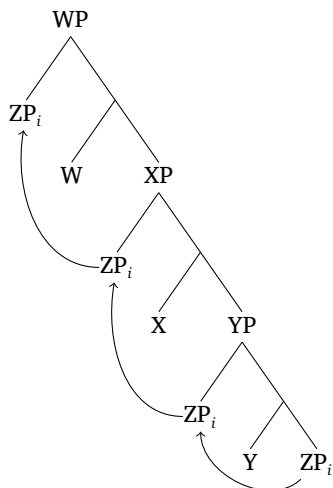
In this section, I argue that we should appeal to a separate mechanism—namely, effects of cliticization—to account for the pronoun-only resumption of subjects in Atchan. The takeaway of §6.1 was that subject pronouns in Atchan are more closely entwined with aspectual/verbal material than subject lexical DPs are: only subject pronouns trigger verbal allophony and undergo aspect-based fusion and portmanteau processes. These empirical observations, I argue, lend credence to the idea that resumption of extracted pronouns is linked to subject pronoun cliticization. In this section, this close relationship between pronouns and aspectual material will be formalized using morphological operations that tie together these pronouns and the Asp head.

The central idea of cliticization-based analyses of resumption ([Nunes 2004](#); [Kandybowicz 2006](#); [Bošković & Nunes 2007](#); [Harizanov 2014](#); [Kramer 2014](#)) is that cliticized elements do not ‘look like’ other copies in the movement chain. That is, by virtue of undergoing cliticization, clitics are able to ‘hide from’ the Chain Reduction algorithm. Since Chain Reduction does not ‘see’ these clitic elements, the algorithm does not tag them for deletion; as a result, the clitic is exponed as though it were never part of a movement chain.

This derivation involves a series of four ordered steps, which I schematize here. In the first step, an element (here, ZP) moves; at this point, the element destined to be a clitic leaves a copy in an intermediate landing site, just like any other movement step.

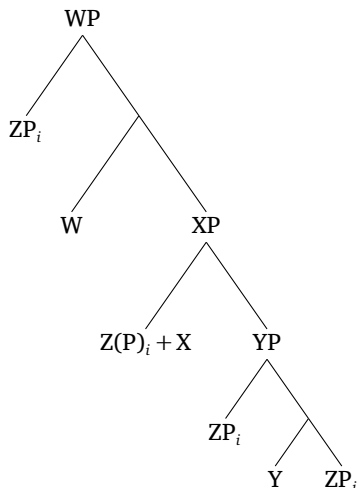
For illustration, the tree below shows ZP moving through two intermediate positions (Spec,YP and Spec,XP) on its way to Spec,WP. Eventually, cliticization will impact the Spec,XP copy.

(47) **Step 1: Movement of ZP**



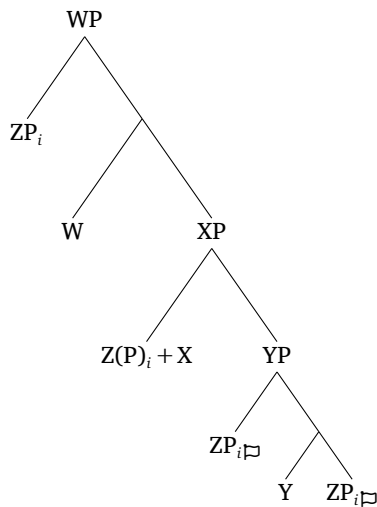
In the second step, post-syntactic cliticization occurs. This cliticization operation is often formalized as DM Fusion (Nunes 2004; Kandybowicz 2006; Bošković & Nunes 2007; cf. Halle & Marantz 1993; 1994 on the Fusion operation). The result of this Fusion is a combined feature bundle containing the features of both Z(P) and X.¹⁵

(48) **Step 2: Fusion of ZP and X**

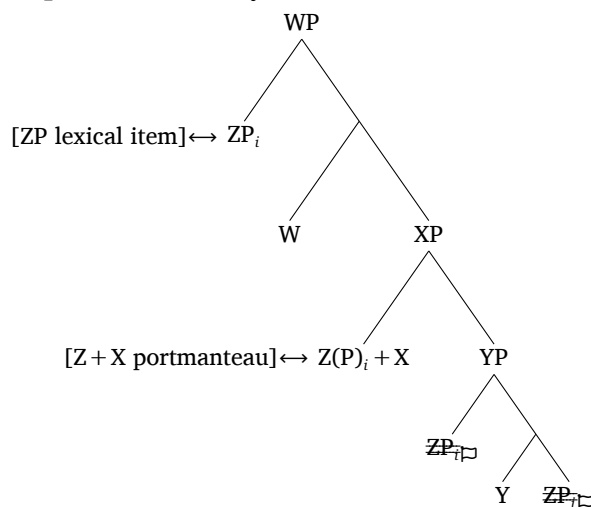


In the third step, the Chain Reduction algorithm applies; it leaves the highest copy of ZP intact and tags all other *visible* copies in the ZP movement chain for non-pronunciation (tag illustrated with $\bar{\square}$). Crucially, the Fused copy is not visible to Chain Reduction, so that copy remains untagged.

¹⁵ For the purposes of this illustration, I am not focusing on the distinction between heads and phrases in Fusion; see Harizanov 2014 and Kramer 2014 for discussion of DM operations similar to this one applying to branching phrasal projections. Note also that an intermediate step of m-merger might first be necessary to set up the adjacency required for Fusion (cf. Matushansky 2006).

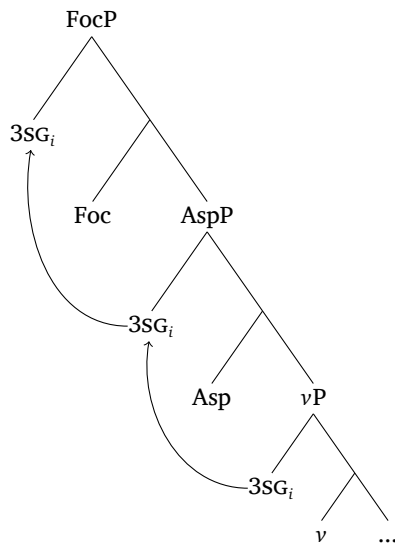
(49) **Step 3: Chain Reduction tags visible copies for non-pronunciation**

Finally, the fourth step involves Vocabulary Insertion. Here, the highest copy is pronounced in full, and tagged copies go unpronounced (indicated via double strikeout). A portmanteau form is inserted to realize the Fused Z(P) + X feature bundle.

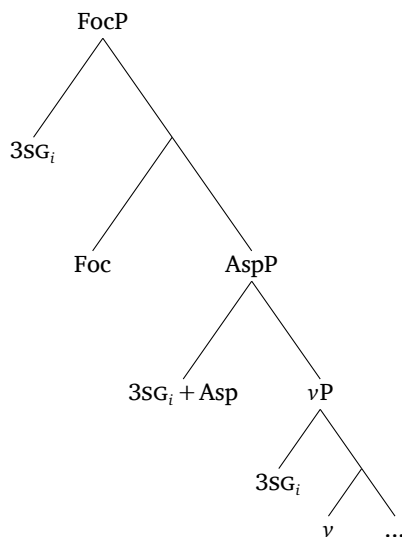
(50) **Step 4: Vocabulary Insertion**

Overall, we see that cliticization of Z to X causes double exponence of Z's features: the highest copy of ZP is spelled out as the head of the movement chain, and the Fused copy is spelled out as part of a portmanteau. In this way, cliticization provides a route to resumption that does not need to appeal to the Copy Deletion algorithm: since the clitic copy is never tagged for deletion, the Copy Deletion algorithm is never invoked.

This kind of analysis can be extended straightforwardly to resumption of Atchan singular subject pronouns, since they intuitively fuse with aspect. To formalize this, I assume that agentive subjects in Atchan are base-generated in Spec,vP (this is not crucial), and that all subjects in Atchan move to Spec,AspP for EPP reasons (i.e., Spec,AspP is the canonical subject position in Atchan, analogous to Spec,TP in languages like English). Accordingly, Step 1 for an Atchan 3SG pronominal subject that undergoes later focus movement is schematized below (with only relevant projections shown):

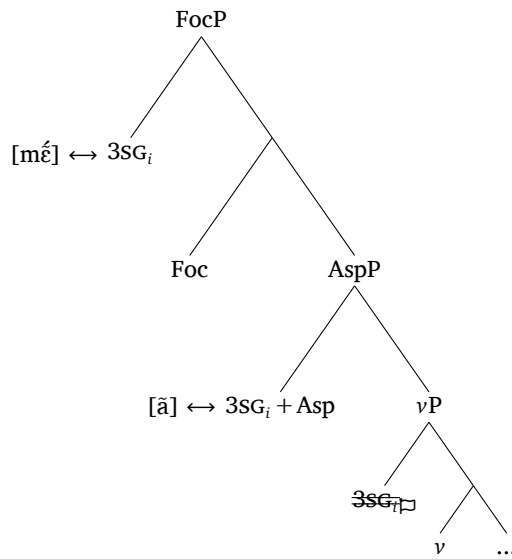
(51) **Step 1: Movement of 3SG_{PROX} pronoun**

In Step 2, the singular pronoun undergoes Fusion with Asp:

(52) **Step 2: Fusion of Spec,AspP with Asp**

In Step 3, the Fused copy is invisible to Chain Reduction, so only the Spec,vP copy is tagged for non-pronunciation. This leads to double spellout of the singular pronoun in Step 4:

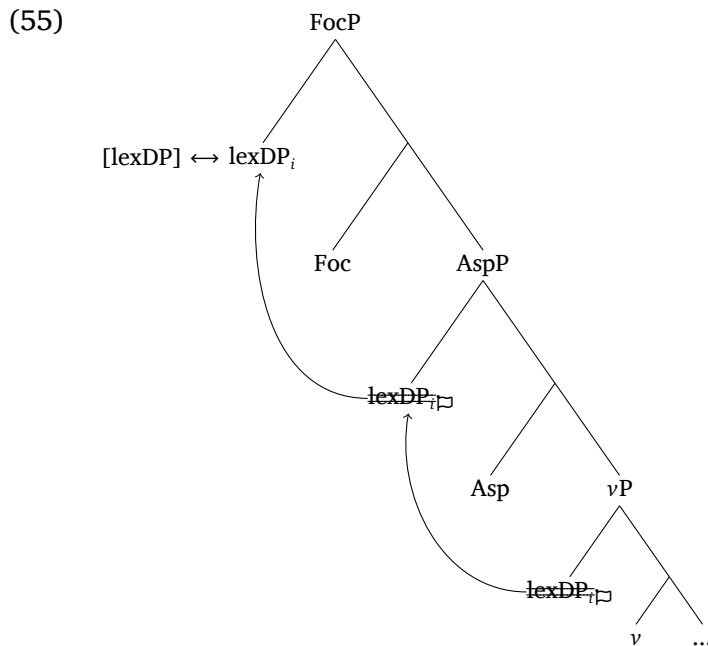
(53) **Step 3 + 4: Chain Reduction tagging and Vocabulary Insertion**



This analysis captures obligatory pronominal resumption of extracted singular subjects, as shown in (35a) and repeated below:

- (54) mÉ nã { ã / *Ø e- } p^hí dja
 3SG_{PROX} FOC 3SG_{PROX.S} PROG laugh V.PART
 ‘It’s her who is laughing.’ (20240310_kou)

To explain non-resumption of lexical DP subjects, I assume that they move through Spec,AspP in Step 1, for EPP reasons, but do not undergo Fusion with Asp in Step 2. This means that both lower copies are tagged for non-pronunciation, and only the Spec,FocP copy is pronounced. This entire derivation is summarized in the following tree:



In this way, a cliticization analysis is able to naturally capture the split in resumption morphology between pronouns and lexical DPs. This suggests that we should appeal to two different mechanisms in analyzing resumptive pronouns across languages (and within a single language). While P-requirements are well-prepared to capture *uniformity*

of resumption in extraction from a given syntactic position (like the complement of P), I contend that a cliticization approach is better equipped to capture resumption of only some elements (like just pronouns, in contrast to lexical DPs).

6.5 Tying up loose ends

In this section, I address two analytical loose ends.

6.5.1 Resumption of plural pronouns, and m-merger

The first concerns resumption of plural pronouns in Atchan. In the previous section, I proposed a link between resumption and Fusion of singular pronouns; this Fusion is analytically justified on the grounds that singular pronouns and the segmental progressive [e-] cannot co-occur. In contrast, we saw in (31), repeated below, that plural pronouns can co-occur with the segmental progressive:

- (56) wo e-p^hí dja
 3PL PROG-laugh V.PART
 ‘They are laughing.’ (20240720_hre_jea)

This data suggests that we should *not* claim that plural pronouns undergo Fusion with Asp.

How, then, should we explain the fact that extracted subject pronouns are resumed regardless of plurality? Recall from §6.1 that, despite the absence of plural progressive fusion, there is still evidence for an intermediate degree of connectedness between plural pronouns and aspectual/verbal material. We could assimilate plural pronouns to this general resumption story by following Harizanov 2014 and Kramer 2014 in assuming that the DM operation of m-merger (Matushansky 2006) is sufficient to cause Chain Reduction invisibility. In the m-merger operation, an element Z(P)¹⁶ in the specifier of YP is lowered to form a complex head with Y, as schematized below:

- (57) M-merger of Z(P) to Y:
-

The crucial difference between m-merger and Fusion is that, in the former, the two items remain distinct within the complex head. This allows for the insertion of two different lexical items to realize X(P) and Y, unlike the obligatory portmanteau insertion with Fused elements.

To capture the intermediate degree of connectedness between plural pronouns and lexical DPs, we could propose that they undergo only m-merger with Asp. Harizanov (2014) and Kramer (2014) propose that m-merger alone can cause Chain Reduction invisibility and consequent resumption, to capture clitic doubling in Bulgarian and Amharic, respectively. If we adopt the same view for Atchan, we can explain why *all* Atchan subject pronouns are resumed.

¹⁶ Again, following Harizanov’s and Kramer’s discussion of these operations applying to branching projections, I do not focus on the possible phrasal status of ZP here.

6.5.2 Tonally-exponed aspect and recoverability

The second loose end to tie up concerns the extraction marker [a], which we have seen surfaces in subject lexical DP extraction in imperfective and perfective aspects. The crucial data on lexical DP extraction in these aspects is repeated below, from (44)-(45):

(58) Imperfective aspect

- a. mɔja nɔ́ á la ɲākā áká k^húmbɛ̃
 M. FOC ASP pray God day all
 ‘It’s Moya who prays every day.’
- b. mɔja nɔ́ a p^hí dja áká k^húmbɛ̃
 M. FOC ASP laugh V.PART day all
 ‘It’s Moya who laughs every day.’ (20240727_kou)

(59) Perfective aspect

- a. mɔja nɔ́ a la ɲākā ẽmpi
 M. FOC ASP pray God one.day.away
 ‘It’s Moya who prayed yesterday.’
- b. mɔja nɔ́ a p^hi dja ẽmpi
 M. FOC ASP laugh V.PART one.day.away
 ‘It’s Moya who laughed yesterday.’ (20240727_kou)

The analysis sketched in the previous section can capture total non-resumption in progressive-aspect clauses, but the status of [a] in (58)-(59) remains unresolved. What I suggest here is that the element [a], at least at some level, is fulfilling a two-part requirement that (i) Atchan aspect must be realized (i.e., floating tones must have sufficiently-local hosts), and (ii) it must be realized in a fully recoverable way (i.e., the verb must not be the linearly-first element within AspP). I suggest that [a] is a last-resort form (roughly epenthetic, analogously to [Rolle & Merrill 2022](#) on tone-driven epenthesis) inserted when these two requirements are not otherwise satisfiable.

The first part of the requirement explains the appearance of [a] in imperfective-marked clauses. Atchan imperfective can be analyzed as a floating tone polar to the verb ([Russell 2023](#)), which needs a host in order to satisfy (i). Presumably, the focus marker is insufficiently close to host the floating tone, so [a] is inserted/epenthesized and bears that tone.

The explanation for the perfective must be a bit more elaborate, since the tonal changes that the perfective enforces are exponed on the verb. (Recall that the perfective involves tone lowering, enforced on the verb.) Unlike the imperfective, this lowering is ‘successful’ even in cases of extraction: see the L tone on [p^hi] ‘laugh’ in (59b).

I suggest that the reason [a] still surfaces in perfective-aspect extraction is because perfective exponence is a bit phonologically messy. In particular, as is illustrated below, H-tone subjects spread and overwrite the L tone that the perfective introduces ([Russell 2023](#)):

(60) Perfective aspect

- a. mɔja la ɲākā ẽmpi
 M. pray God one.day.away
 ‘Moya prayed yesterday.’ (20240521_kou)
- b. jajó lá ɲākā ẽmpi
 Y. pray God one.day.away
 ‘Yayo prayed yesterday.’ (20240727_kou)

Here, we see two examples of perfective-aspect clauses, which differ underlyingly only in the tone of the subject's final vowel. Both involve the underlyingly H-toned verb /lá/ 'pray', whose tone is replaced with L in the perfective. The crucial difference is the underlying tone on the subject: /mɔja/ in (60a) is underlyingly L, while the final vowel in /jajó/ is underlyingly H. In perfective clauses with H-tone subjects, the H tone spreads rightward onto the perfective-marked L-tone verb, yielding the surface H-toned [lá] in (60b). The effect is a kind of Duke-of-York derivation: the perfective lowers the verbal tone from /H/ to L, only for tone spreading to raise it back to surface [H] in (60b). The upshot of this discussion is that, to unambiguously know the aspect of an Atchan clause, it is insufficient to look just at the verb's surface tone: we need also to know the subject's tone, to determine if tone spreading has occurred. I suggest that extraction [a] is fulfilling this need to know the immediately preverbal tone, so that aspect is fully recoverable.

In closing, I note that this characterization of the distribution of [a] has appealed to a need for recoverability. This requirement to have a preverbal tone can be formalized without appealing to recoverability *per se*: for example, we could propose a linearity requirement, on which the verb/auxiliary must not be the first overt item within the AspP domain. A fuller characterization of the extraction marker [a] and why it is the best option to insert in this environment, however, must be left to future work.

7 Conclusion

This paper has investigated the morphosyntax of resumption in Atchan, with an eye towards the algorithms in the grammar that permit and block resumption. I have demonstrated that Atchan exhibits multiple splits in movement-based resumption: in some positions (namely, PP subextraction) resumption is obligatory across all DP types, while in other positions (namely, subject extraction) resumption is obligatory for pronouns but banned for lexical DPs. The details of these splits, I have argued, require us to recognize multiple mechanisms in the grammar that can give rise to resumption.

The overall picture that I have argued for is one on which non-pronunciation of multiple movement chain copies—i.e., chain reduction—is due to economy. However, particular (language-specific) positions can be associated with prosodic prominence, requiring overt pronunciation and overriding economy constraints for all extracting elements. In addition, idiosyncratic morphological processes shift elements around in the structure, moving them into domains in which they are shielded from the economy algorithm.

One consequence of this view is that we might expect to see cliticization-based resumption exhibit more flexibility across languages in terms of its distribution. In particular, the analysis that I have developed here relies on a proposal that all and only pronouns in Atchan undergo key morphological cliticization operations. It is conceivable, however, that different sets of elements might undergo the relevant operations in other languages. This restricted scope might serve as a cross-linguistically relevant diagnostic, since P-requirements would in general be predicted to apply to all elements occupying a particular position (barring language-specific null morphemes; cf. van Urk 2018:fn.22).

A second prediction of this view, which must await further cross-linguistic testing, is that the two different mechanisms proposed here predict different ranges of possible phi-mismatches in resumption across languages. In particular, the kind of P-requirement analysis that I have pursued here can be parametrized, as discussed earlier, to account for phi-mismatches in resumption in different languages. In contrast, the cliticization-based story is not as flexible in dealing with phi-mismatches, since operations like Fusion do not standardly delete phi-features. We therefore might expect that cliticization-based

resumption should exhibit little to no phi-mismatches across languages. Languages that exhibit different degrees of phi-faithfulness in resumption will be crucial in exploring the accuracy of this prediction.

Abbreviations

ASP = aspect, COMP = complementizer, COP = copula, FOC = marker, FUT = future, INAN = inanimate, IPFV imperfective, NEG = negation, PFV = perfective, PL = plural, PROG = progressive, PROX = proximate, O = object, 3SG_{OBV} = obviative pronoun, S = subject, SG = singular, TOP = topic marker, V.PART verbal particle in a particle-verb construction.

Acknowledgements

Nansio to Jeanne Doko, Chrystelle Gomon, Honoré Koutouan, Marcel Paul, and especially Evelyne Koutouan for sharing their language with me. For questions and comments, I thank Amy Rose Deal, Doreen Georgi, Peter Jenks, Line Mikkelsen, Katherine Russell, Martin Salzmann, Hannah Sande, Gary Thoms, and audiences at NYU's Syntax Brown Bag, Universität Potsdam's Morpho-Syntax Lab Meeting, and Goethe-Universität Frankfurt's Syntax Colloquium.

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