

Voice and extraction in Malayic

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Abstract In many Malayic languages (western Austronesian), subjects can undergo A'-movement without any special qualification, whereas non-subject nominals can only A'-move if the verb appears without a voice prefix. We propose a novel account for the syntax of voice alternations in Malayic languages that explains this extraction restrictions. In particular, we argue that the restriction on non-subject extraction and voice morphology is best explained by the Cyclic Linearization theory of phasehood (Fox and Pesetsky 2005) and a particular organization for the verbal phase. The proposal is motivated by our original data on voice and extraction in Suak Mansi Desa, a previously undescribed Malayic language of West Kalimantan, which we then successfully extend to Standard Indonesian and Standard Malay as well as various other dialects and languages of the region.

Keywords Malayic, Suak Mansi Desa, voice, subjecthood, A'-movement, *meN*-deletion, verbal phase, Cyclic Linearization

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1 Introduction

Many western Austronesian languages of Malaysia and Indonesia are frequently described as exhibiting an active/passive voice alternation. In Standard Indonesian (SI) and Standard Malay (SM), active verbs bear a *meN*- prefix, where *N* is a homorganic nasal, and passive verbs bear the prefix *di*-.¹

(1) Active/passive alternation in SI/SM:

- a. Fera **men**-ulis buku ini. (*meN-tulis* > *menulis*)
Fera ACT-write book DEM
'Fera wrote this book.'
- b. Buku ini **di**-tuliskan (oleh Fera).
book DEM PASS-write by Fera
'This book was written by Fera.'

A wrinkle in this picture of a “two-way” voice alternation is the fact that transitive verbs also appear in some contexts without any voice prefix. One such context is a construction variously described in the literature as “passive type 2” (Dardjowidjojo 1978; Sneddon 1996, a.o.), “bare passive” (Voskuil 1996, 2000; Cole, Jonczyk, and Lilley 1999b, a.o.), or “object(ive) voice” (Arka and Manning 1998; Cole, Hermon, and Yanti 2008; Legate 2012, 2014; Jeoung 2018b), among other terms (see Nomoto 2006). In such clauses, which we refer to as *bare passives*, the subject is an internal argument and the agent is immediately preverbal.

(2) Bare passive in SI/SM:

- Sulat itu saya tulis.
book DEM 1sg write
'I wrote that letter.'
- (SI; Sneddon 1996: xxiii)

Verbs without voice prefixes are also observed in the context of non-subject nominal A'-movement.² This phenomenon has received substantial attention in prior theoretical work on SI and SM, largely informed by the description of such examples by Chung (1976a: 74) and Cole and Hermon (1998, 2000) as extraction of an object from an active clause such as (1) but with the *meN*- active prefix undergoing “deletion” as a response to A'-movement across it. See also Saddy 1991, Soh 1998, Aldridge 2008, and Sato 2012 among others for prior discussion of this effect.

¹ We follow the Leipzig glossing conventions, with the addition of MID = middle, MOD = modal. The active voice prefix is glossed ACT except in Desa, where we differentiate between two forms, N and meN.

² We use the term *A'-movement* as a cover term for *wh*-movement, relativization, focus-fronting, and topicalization. A'-movement stands in opposition to *A-movement*, which for example includes the movement of the subject from its thematic base position to its clause-initial position, as discussed in section 3.1. For expository purposes, in sections 1 and 2, only gaps of A'-movement are indicated, as _____. We also use the terms “extraction” and “movement” interchangeably.

(3) **Object relativization requires verb without *meN*- active prefix in SI/SM:**

Buku [RC yang Wati { ***men**-ulis / tulis } ____] ada di atas meja itu.
 book C Wati ACT-write write exist on top table that
 ‘The book that Wati wrote is on the table.’ (SI; Cole and Hermon 2005: 67)

There is much discussion in the literature surrounding the bare passive (2), the nature of so-called “*meN*-deletion” as in (3), as well as the relation between them, and what they tell us about the nature of voice and A’-movement in SI/SM. At the same time, there is substantial variation in the form and behavior of these voices across the many regional, colloquial Malay varieties and other Malayic languages (Gil 2002; Adelaar 2005; a.o.) but — with a few notable exceptions such as Cole, Hermon, and Tjung 2006 and Cole, Hermon, and Yanti 2008 — the consequences of this variation for the theoretical analysis of these voice forms have not been substantially explored.

In this paper, we introduce and analyze the voice alternation in (Suak Mansi) Desa, a previously undescribed Malayic language of West Kalimantan, Indonesia.³ Active voice forms in Desa are notable for having two variants: a short nasal prefix of *N*- alone and a full, long *meN*- prefix. While these two forms are generally in free variation, object A’-movement is only possible across active verbs with the short prefix:

(4) **Desa non-subject A’-movement allows short *N*- but not long *meN*- active prefix:**

Opai yang inya { **m**-ewa’ / ***mem**-ewa’ } ____? (*N*-bewa’ > *mewa*’)
 what C 3sg N-bring *meN*-bring
 ‘What did s/he bring?’

Desa also has a bare passive with immediately preverbal agent, parallel to the SI/SM example (3). The verb in Desa bare passives as in (5) has no voice prefix, disallowing both the short (*N*-) and long (*meN*-) active prefixes.

(5) **Desa bare passive verb allows neither active prefix:**

Kayu inya { bewa’ / ***m**-ewa’ / ***mem**-ewa’ }.
 wood 3sg bring N-bring *meN*-bring
 ‘S/he is bringing wood.’

We argue that these facts from Desa offer several important hints for the analysis of Malayic voice, including the nature of the *meN*-deletion interaction in the standard languages. Desa teaches us that, in a Malayic language with greater flexibility in the form of active voice verbs, object extraction still restricts the form of the verb as in SI and SM, but that it is specifically the initial syllabic *me*- whose occurrence is restricted in object extraction, as the short nasal prefix of *N*- alone remains. At the same time, the

³ There is no standardized orthography for Desa, so we utilize a modified SI/SM orthography. Following SI/SM orthography, nasals are represented by <ng> [ŋ] and <ny> [ɲ]. We use <’> for [ʔ].

availability of *N-* in object extractions such as (4) shows that such clauses are also importantly different from bare passive clauses as in (5). Informed also by earlier arguments for treating active *meN-* as the combination of two prefixes *me-* and *N-* across Malayic languages (Gil 2002; Benjamin 2009), such facts lead us to analyze *me-* and *N-* as realizations of two separate functional heads.

We propose an account for voice morphosyntax in Desa, as well as in other Malayic languages including SI and SM, that offers a new, more explanatory account for these interactions between voice prefix form and object extraction. Our proposal adopts the widely adopted assumption that the verbal extended projection constitutes a *phase* in the sense of Chomsky 2000, 2001 and much subsequent work. In particular, we follow the Cyclic Linearization proposal of Fox and Pesetsky 2005 whereby the construction of full phases triggers the linearization of its contents. Material within the phase can then be moved later in the derivation, but only if they do not yield conflicting linearization instructions. Under our proposal, the verbal phase in Malayic is organized so that it generally only allows one nominal (the subject) to be moved out of it, with just one exception: an object and subject can be moved simultaneously under the precise condition where the highest head in the verbal phase is unpronounced. Taking this highest head to be the locus of pronunciation for *me-* (which in SI and SM always cooccurs with *N-*, unlike in Desa), we arrive at an explanatory account for the link between object extraction and the reduction or disappearance of the active prefix *meN-*.

The paper is structured as follows. First, in section 2, we offer a description of voice alternations, A'-extraction, and their interaction in (Suak Mansi) Desa, a previously undescribed Malayic language of West Kalimantan. There we also introduce the parallel facts in Standard Indonesian and Standard Malay, which have been well described and theorized in prior work, highlighting the few but important differences between them and Desa. Next, in section 3, we present our novel proposal for Malayic clausal syntax and how it accounts for the interaction of A'-extraction and voice morphology in Desa. Then, in section 4, we extend our analysis to the standard languages as well as related languages and dialects of the region which exhibit similar syntactic behaviors. Building on the Cyclic Linearization theory of phase impenetrability effects, our proposal offers the first explanatory account for why object extraction as in (3) requires the absence of a voice prefix; i.e. the so-called “*meN*-deletion” effect. We conclude in section 5.

2 Voice and extraction in Desa

2.1 Language background

Desa is a Malayic language spoken in West Kalimantan, Borneo.⁴ It is predominantly spoken in a village called Suak Mansi, which is located south of the Kapuas River in the Sanggau Regency. The approximate

location of Suak Mansi is given below in Figure 1. Speakers of this language refer to it as *bahasa Desa* ('Desa language') and occasionally colloquially as *Opai* (the Desa word for 'what').

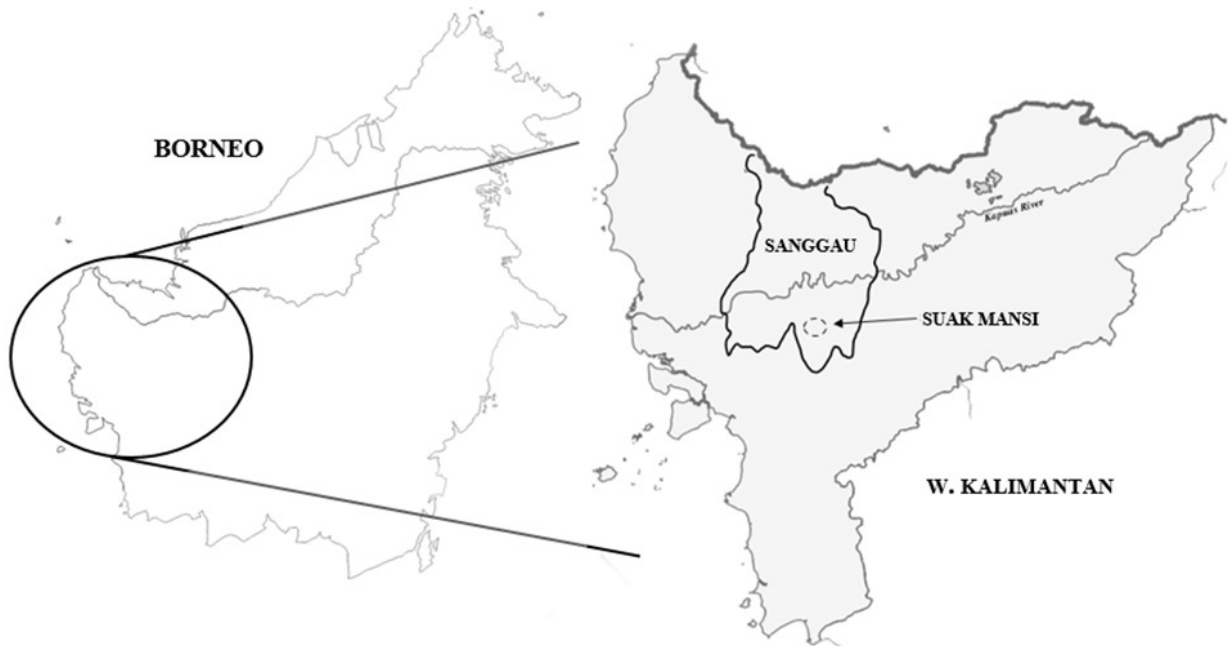


Figure 1: Approximate location of Suak Mansi in West Kalimantan

All Desa data in this paper were collected through primary fieldwork by the second author over the course of three summers beginning in 2017. Elicitation sessions were conducted in the village of Sungai Galing, which is located just north of Suak Mansi, along the Kapuas River. All data from these sessions have been transcribed and tagged and are publicly available at [Anonymized data archive]. Unfortunately, due to their remote nature, access to both Sungai Galing and Suak Mansi is quite difficult. As a result, we are limited here to the data collected previously and reflected in the archive. The behavior that we report here reflects consistent contrasts across multiple sentences with different lexicalizations, over multiple sessions, which faithfully reflects the data in our entire corpus. In the few instances where there are conflicting judgments or insufficient evidence to address a question in our corpus, we explicitly note this.

2.2 Voices

Desa generally resembles well-studied Malayic languages in terms of its word order and voice marking. As described earlier, Standard Indonesian and Malay (SI/SM) have active and passive voices with

⁴ Desa belongs to the West Bornean Malayic subbranch within the Smith 2017 classification of Malayic, and therefore not a variety of Malay proper. We caution that there is another, distinct language that is also called Desa and spoken further upriver (Collins 2004; Herpanus 2014; Collins and Herpanus 2018), but based on the available data, it differs considerably from the language discussed here. Where it is necessary to clearly distinguish the two, we suggest referring to the language discussed here as Suak Mansi Desa. See Sommerlot 2020: 8–13 for discussion of Suak Mansi Desa in relation to the Desa described by Collins and Herpanus as well as its position within the Malayic family.

corresponding verbal prefixes (*meN-* and *di-*), as well as a so-called “bare passive” where the verb appears without a voice prefix. Desa patterns closely with SI/SM in also having these three types of clauses. Here we describe these three clause types in Desa in turn, highlighting salient differences from the behavior of SI/SM. We concentrate here on the behavior of eventive bivalent predicates.

2.2.1 Active

An active, transitive construction in Desa is subject-initial and its verb is prefixed with a nasal affix. Objects follow the verb, and neither the agent nor the theme are marked for case.

(6) Desa active voice with *meN-*:

Inya **meng**-ikat perau yetn.
 3sg *meN*-tie boat DEM
 ‘S/he ties the boat.’

The construction in (6) strongly resembles the Standard Indonesian example provided earlier in (1a). There is, however, another variant of this same sentence, identical in every way except that the nasal prefix has been “shortened” to only the homorganic nasal:

(7) Desa active voice with *N-*:

Inya **ng**-ikat perau yetn.
 3sg *N*-tie boat DEM
 ‘S/he ties the boat.’

Both forms of the nasal prefix occur frequently on a variety of verbs, and there is no distinction in meaning between (6) and (7). The two forms behave identically in their nasal realization: *N-* alone as the short prefix and as part of the long prefix (*meN-*) undergoes homorganic nasal substitution if the verb stem is consonant-initial, and otherwise appears as *ng-*. We present a number of transitive verbs in their bare, *N*-prefixed, and *meN*-prefixed forms in (8), organized by the stems’ onset type.

(8) Some Desa transitive verbs with their *N-* and *meN-* active forms:

<i>pangkong</i>	<i>mangkong</i>	<i>memangkong</i>	‘hit’
<i>bewa’</i>	<i>mewa’</i>	<i>memewa’</i>	‘bring’
<i>boli</i>	<i>moli</i>	<i>memoli</i>	‘buy’
<i>tulis</i>	<i>nulis</i>	<i>menulis</i>	‘write’
<i>kirim</i>	<i>ngirim</i>	<i>mengirim</i>	‘send’
<i>sapah</i>	<i>nyapah</i>	<i>menyapah</i>	‘call’

<i>cuci</i>	<i>nyuci</i>	<i>menyuci</i>	‘wash’
<i>ikat</i>	<i>ngikat</i>	<i>mengikat</i>	‘tie’
<i>ambek</i>	<i>ngambek</i>	<i>mengambek</i>	‘take’

In active clauses with preverbal auxiliaries, the subject must precede the auxiliaries. This is shown for Desa in (9) with a range of preverbal auxiliaries, with both long (*meN-*) or short (*N-*) voice prefix verbs. This generalization is also true of SI/SM, as seen in (10). We analyze this restriction as the effect of an obligatory, high structural position for subjects; i.e. an EPP requirement.

(9) **Agent subjects precede auxiliaries in Desa active voice:**

Aku { *tongah* / *udah* / *mau* / *tau*’ / *nda*’ } { *ny-apah* / *meny-apah* } *kawan-ku*. (*N-sapah* > *nyapah*)
1sg PROG ASP FUT MOD NEG N-call MEN-call friend-1sg
‘I { am calling / called / will call / didn’t call } my friend.’

(10) **Agent subjects precede auxiliaries in SI/SM active voice:**

{ *Kami* } *tidak akan* { **kami* } *mem-baca buku ini*.
1pl NEG FUT ACT-read book this
‘We will not read this book.’ (SI; Cole et al. 2008: 1512)

2.2.2 *Di-* passive

The *di-* passive in Desa is nearly identical to what has often been referred to as the ‘canonical’ passive in SI/SM: the verb bears a *di-* passive voice prefix and the agent can be specified with an optional prepositional phrase headed by *oleh* ‘by.’

(11) **Desa canonical passive:**

Makanan mau di-kirim (oleh umak-ku) ke Meliau.
food FUT DI-send by mother-1sg to Meliau
‘Food will be sent to Meliau (by my mother).’

2.2.3 Bare passive

Desa additionally has a “bare passive” clause type. This construction is characterized by a verb without any voice prefix, an internal argument as the clause-initial subject, and an immediately preverbal external argument (agent): see (12). We italicize these immediately preverbal agents throughout this section. This construction shares several features in common with the bare passive in SI/SM; we reproduce one such example below in (13).

(12) **Desa bare passive:**

Meja yetn *aku* teipel.
table DEM 1sg touch
'I touch the table.'

(13) **SI/SM bare passive:**

Buku itu *dia* baca.
book DEM 3sg read
'S/he read the book.' (Chung 1976a: 52)

The bare passive in SI/SM is so called as its verb must appear without any voice prefix. The same is true of the bare passive in Desa: in particular, both the short (*N-*) and long (*meN-*) form active prefixes are disallowed, as seen in (14). The *di-* prefix is also disallowed in the bare passive; see (15).

(14) **Desa bare passive verb allows neither active prefix: =(5)**

Kayu *inya* { bewa' / ***m**-ewa' / ***mem**-ewa' }.
wood 3sg bring N-bring **meN**-bring
'S/he is bringing wood.'

(15) **Desa bare passive verb disallows the *di-* prefix:**

Manok *umak-ku* { buat / ***di**-buat }.
chicken mother-1sg make **DI**-make
'My mother makes chicken.'

Two notable properties of the agent in bare passives are also the same between SI/SM and Desa. First, the agent of a bare passive is obligatory, unlike the agent of a *di-* passive:

(16) **Agents are obligatory in Desa bare passives:**

Buku *(*ikau*) beca.
book 2sg read
'A/the book was read by you.'

(17) **Agents are obligatory in SI/SM bare passives:**

Mobil ini akan *(*kita*) perbaiki.
book DEM FUT 1pl read
'This car will be repaired by us.' (based on Chung 1976b: 85)

Second, in clauses with preverbal auxiliaries, the agent must be in immediately preverbal position, following the auxiliaries. This is shown with the progressive auxiliary in (18). The same holds of bare passive agents in SI/SM (see e.g. Dardjowidjojo 1978: 259), as in (19). This placement of bare passive agents is in striking contrast to the agentive subjects of active clauses, which must precede any auxiliaries; see examples (9–10) above.

(18) **Agents are low in Desa bare passives:**

Buku yetn { **lelaki yetn* } tengah { *lelaki yetn* } tulis.
book DEM PROG male DEM write
'The book is being written by the man.'

(19) **Agents are low in SI/SM bare passives:**

Buku ini {**kami*} tidak {**kami*} akan {*kami*} baca.
book this NEG FUT 1pl read

‘This book will not be read by us.’

(SI; Cole and Hermon 2005: 62–63)

Additionally, if the agent is pronominal, it can be reduced and procliticize to the verb. For example, the first singular pronoun *aku* appears as *ku* in (20) and (21) below. This reduced pronominal form *ku* is also used for first-singular possessors, where it encliticizes to its possessum noun phrase. This pronoun reduction also supports the idea that bare passive agents are low and form a tight unit with their verb.

(20) **Pronominal agents can procliticize to the verb in Desa bare passives:**

Yetn [ular [RC yang ____ suwah *ku*-liet ____] paling bosa].
DEM snake C AUX 1sg-see most big

‘That is [the biggest snake [that I’ve ever seen]].’

(21) **Pronominal agents can procliticize to the verb in SI/SM bare passives:**

Buku itu *ku*-beli.
book DEM 1sg-buy

‘The book was bought by me.’

(SI; MacDonald and Darjowidjojo 1967: 238, in Chung 1976b: 60)

The one point where the bare passive in Desa diverges from that in SI is in the types of nominals that are allowed as its agent. Bare passive agents in SI are limited to pronouns like the third-singular *dia* in (13) above or similar pronoun substitutes (Sneddon 1996: 248–249, a.o.). Desa does not have this restriction, so agents in the bare passive can be full noun phrases (DPs):

(22) **Agents can be full DPs in Desa bare passives:**

Padi *lelaki* yetn curi.
rice male DEM steal

‘Rice was stolen by the man.’

However, this freedom of bare passive agent form is not unique to Desa. Nomoto (2021) shows that many languages of western Indonesia — including SM (in contrast to SI) as well as many non-standard, regional Malay varieties and related languages — allow non-pronominal agents in the bare passive. Against this broader typology, the restriction in SI is in fact the exceptional extreme.

2.3 A'-extraction constructions

Next we turn to patterns of A'-extraction (relativization, *wh*-fronting, focus-fronting (clefts), and topicalization) of nominal arguments in Desa as well, as in SI and SM. We comment on the A'-extraction of non-nominals in section 3.2 below.

As noted in the introduction, the interaction of A'-extraction with the *meN*- active prefix in SI/SM has received much attention in prior theoretical work. Desa shows us a slightly different version of such facts, which will motivate our analysis below. As background, we first present the well-known subject-only extraction restriction in SI/SM and its so-called “*meN*-deletion” exception. A'-extraction can target subjects of active clauses as in (23), as well as subjects of *di*-passives and bare passives (not shown here), with no change to verbal morphology. In contrast, the extraction of non-subject arguments is ungrammatical in the basic case. This has led reference works on SI and SM to describe nominal A'-extraction constructions (e.g. gapped relativization and *wh*-fronting) to be restricted to the subject; see e.g. Sneddon 1996: 285–287, 301–302.

(23) **Active subject extraction in SI/SM:**

Siapa-kah yang ____ telah **mem**-baca buku itu?
 who-Q C ASP ACT-read book this
 ‘Who has read the book?’ (SM; Soh 1998: 297)

However, object extraction *is* possible in SI/SM, as long as the active voice prefix is absent, as in (24) below. As Soh (1998) and Cole and Hermon (2005) discuss, some theme A'-extraction examples similar to (24) but without an auxiliary could be analyzed as involving extraction of a bare passive subject, rather than A'-extraction of an active object across the verb. However, examples such as (24) where the agent (*Ali*) precedes the auxiliary (*tidak*) show that object A'-extraction from an active clause — as diagnosed by the high, pre-auxiliary position of the agent — is indeed possible, as long as the active prefix is absent.

(24) **Object extraction is not possible with *meN*- but possible without, in SI/SM:**

baju-baju [_{RC} yang Ali tidak { ***mem**-basuh / basuh } ____]
 shirt-RED C Ali NEG ACT-wash wash
 ‘clothes that Ali isn’t washing’ (SM; Keenan 1972: 183–184)

This phenomenon of so-called “*meN*-deletion” has received substantial attention in the theoretical literature on SI and SM, for two reasons. First, it shows that the general subject-only restriction on nominal A'-extraction — a widespread typological trait that holds of many western Austronesian languages (see e.g. Himmelmann 2005: 161–163, Chung and Polinsky 2009: 665–666) — is not absolute in SI and SM. Second, it suggests that verbal voice morphology interacts with A'-extraction in non-trivial ways.

With this background on nominal A'-extraction in SI/SM in place, we now turn to the corresponding behaviors in Desa. Subject A'-extraction from both active and passive clauses are common and unrestricted; see (25–26). Notice that subjects of active clauses with both the short (*N*-) and long (*meN*-) active prefix can be extracted.

(25) **Desa active subject extraction:**

- a. Sopai yang ___ ng-ikat perau yetn?
who C N-tie boat DEM
'Who tied the boat?'
- b. Sopai yang ___ meng-ambek ageng-ku?
who C MEN-take basket-1sg
'Who took my basket?'

(26) **Desa *di*-passive subject extraction:**

Opai yang ___ tau' di-tanam di taman?
what C MOD DI-plant in field
'What can be planted in the field?'

Next we turn to the A'-extraction of active objects in Desa, which exhibits a slight variation on the "meN-deletion" interaction of SI/SM summarized above. While the active prefix *meN-* is disallowed in object A'-extraction just as in SI/SM, no such restriction exists for the shortened *N-* prefix, as seen in the object focus-fronting construction in (27).

(27) **Object extraction allows *N-* but not *meN-* in Desa:**

Buku to yang opa'-ku { *m-oli* / **mem-oli* } _____. (*N-boli* > *moli*)
book DEM C father-1sg N-buy MEN-buy
'It's this book that my father bought.'

Further, Desa differs from SI/SM in the word order of object extraction clauses such as (27). While the SI/SM object relative clause in (24) reflects the word order found in active clauses, in Desa object extraction, agents always follow auxiliaries:⁵

(28) **Agents follow auxiliaries in Desa object extraction:**

Opai yang { **inya* } nda' { *inya* } m-ilau ____? (*N-pilau* > *milau*)
what C NEG 3sg N-look.for
'What isn't s/he looking for?'

As we noted earlier, this "Aux ag V" order is found in bare passives, but not in active clauses. However, at the same time, recall that verbs in bare passives cannot be prefixed with either version of the active prefix; see (14). We conclude that object extraction clauses in Desa as in (27) and (28), with its "Aux ag V" order and *N-* prefixed verb, are neither straightforward active clauses nor straightforward bare passive clauses. The analysis of this object extraction clause type in Desa, and its relation to the SI/SM *meN*-deletion pattern above, will thus feature prominently in our analysis below.

⁵ One object extraction example with the agent preceding the auxiliary was accepted in a grammaticality judgment task, but this word order was later rejected as ungrammatical when checked in a later session. See [Anonymized session references]. Such structures were never accepted otherwise or naturally produced.

2.4 Summary

We conclude this section with a summary of the different clause types involving eventive bivalent verbs in Desa. We give a schematic illustration of each clause type and their morphological and word order characteristics in (29). Aux* indicates the position where any and all preverbal auxiliaries such as negation and tense/aspect auxiliaries appear.

(29) Summary of Desa clause types:

a. Active:	subj/ag	Aux*	(<i>me</i>)N-	V	obj/th
b. <i>Di</i> -passive:	subj/th	Aux*	<i>di</i> -	V	
c. Bare passive:	subj/th	Aux*	ag { * <i>me</i> N-/*N-/* <i>di</i> - }	V	
d. Object extraction:		Aux*	ag (* <i>me</i>)N-	V	____th

Recall that the subject from each of the clauses in (29a,b,c) can be A'-extracted, but no other nominal can. It is also possible to extract a theme across an agent without first passivizing, as in (29d), which we refer to as the “object extraction” clause type. (Only the gap left by object A'-extraction is indicated, not the moved objects' landing site.) As noted above, object extraction shares with the bare passive the property of having an immediately preverbal agent, but differs in its use of the short active prefix *N*-. Object extraction also differs from the active clause type in the unavailability of the full active prefix *meN*- as well as its low agent position. In the following section, we present our analysis for these four clause types and the relationships between them.

We contrast these Desa clause types to the well-studied paradigm of clause types in SI and SM, summarized in (30).

(30) Summary of SI/SM clause types:

a. Active:	subj/ag	Aux*	<i>meN</i> -	V	obj/th
b. <i>Di</i> -passive:	subj/th	Aux*	<i>di</i> -	V	
c. Bare passive:	subj/th	Aux*	ag { * <i>meN</i> -/* <i>di</i> - }	V	
d. Object extraction:	subj/ag	Aux*	(* <i>meN</i> -)	V	____th

Comparing the SI/SM paradigm in (30) to the Desa pattern in (29), we notice two salient differences. First is that the nasal prefix in SI/SM does not have a short form, and therefore either appears as the full *meN*- prefix in (30a) or is fully absent in (30d), in contrast to the corresponding patterns in Desa. Second is that in SI/SM, but not in Desa, a nominal always occupies the high subject position, modulo its later A'-extraction. As reviewed above, the shared property of a high agentive subject in both active clauses (30a) and object extraction (30d) has led authors to describe the object extraction clause type in SI/SM as a form of active clause but with “deletion” of the active voice prefix *meN*-. In our discussion below, inspired by the pattern observed in Desa, we pursue the idea that object extraction in SI/SM is also best described as sharing some features with both active clauses and bare passive clauses.

3 Malayic clausal syntax and object extraction in Desa

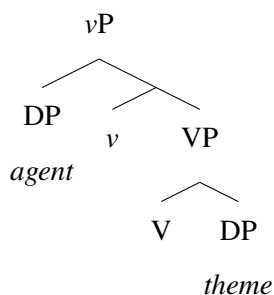
We now turn to our proposal for Malayic clausal syntax with an emphasis on the interaction of verbal morphosyntax and A'-extraction, discussed above. We discuss the syntax of the verb phrase and the analysis of voice alternations in section 3.1 and how this proposal generally allows only subjects to be A'-extracted in section 3.2. Our analysis for this extraction restriction builds on the idea of the *verbal phase* in Minimalist syntax (e.g. ν P in Chomsky 2000, 2001, and much subsequent work), similar to the proposals in Aldridge 2008, Sato 2012, and others. However, our analysis differs from these prior works in the details of the organization of the verbal phase. We then discuss the syntax of object extraction clauses in Desa in section 3.3. In section 4, we extend this proposal to SI and SM, which will offer a new, explanatory account for the so-called “*meN*-deletion” pattern of object extraction clauses.

3.1 Malayic clausal syntax and voice alternations

We begin with our proposal for the extended verbal projection in Malayic. Our proposal here is particularly informed by the overt morphosyntax of Desa, but we argue that it also applies to other Malayic languages, including SI and SM, and other Indonesian-type languages of the region, albeit with differences in associated surface morphology. We discuss these extensions in section 4.

We assume the widely adopted position that all arguments in a clause are generated within the extended projection of the verb, in designated positions associated with their thematic roles (Baker 1988, a.o.), including agentive subjects (see Kitagawa 1986 and Kuroda 1988, as well as Guilfoyle, Hung, and Travis 1992 for SI and SM). A theme argument is generated as the complement of the verb V and an agent argument (or for some predicates an experiencer; collectively the *external argument*) is introduced as the specifier of a functional head ν , as illustrated in (31).

(31) **The base positions of arguments in ν P:**

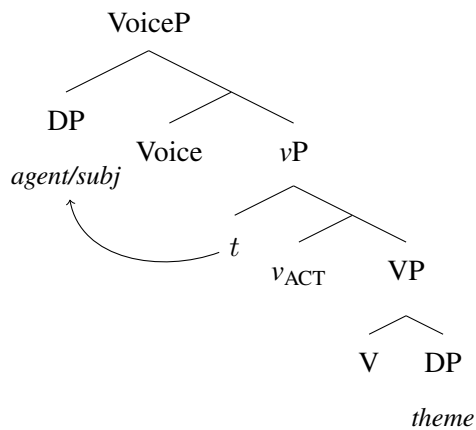


We propose that a separate functional head which we call Voice projects above ν P. The Voice head has two important properties: First, we take VoiceP to constitute a *phase* in the sense of Chomsky 2000, 2001, and much subsequent work. (The ν P projection is not a phase.) Phases reflect the intuition that certain size syntactic units — including full clauses (CPs) and full noun phrases (DPs) — constitute

natural boundaries with limited permeability. In particular, Chomsky (2000: 108, 2001: 13) proposes the *Phase Impenetrability Condition* (PIC) which states that, if a phrase XP is a phase, specifiers of XP are accessible for syntactic operations (e.g. agreement and attraction for movement) from outside XP, but the complement of X and its subparts are not. For our discussion in this section, it suffices to simply assume the PIC to hold of the Malayic verbal phase, VoiceP. We will discuss the deeper motivation for phase impenetrability effects in section 4.

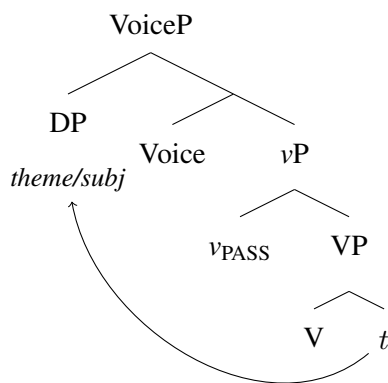
Second, we propose that Voice always hosts exactly one nominal (DP) specifier. In each of the three basic voices, the nominal that moves to Spec,VoiceP will then become the subject of the clause. In active clauses, this is the agent as in (32).

(32) **Malayic active VoiceP:**

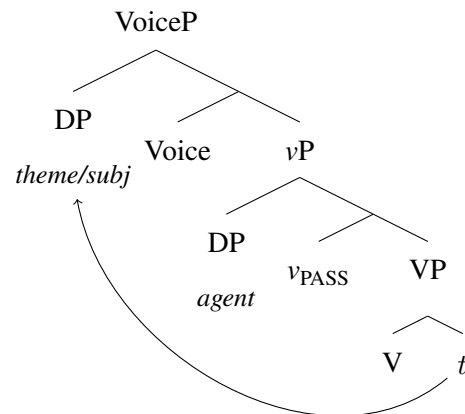


In passive clauses, as sketched in (33–34) below, it is instead an internal argument (here: the theme) that moves to Spec,VoiceP. Note that the featural specification of the Voice head is identical across all clauses: syntactically, it is a phase head and always has exactly one nominal specifier. We will however introduce two variants of the head v (v_{ACT} and v_{PASS}), which correlate with the choice of nominal that becomes the subject and affect the allomorphic realization of Voice, as we describe below. We furthermore propose that the *di*-passive and bare passive involve the same head v_{PASS} , which optionally hosts the agent as its specifier.

(33) **Malayic *di*-passive VoiceP:**



(34) **Malayic bare passive VoiceP:**



The idea that the agent is generated as an argument (in Spec,vP) in bare passives (34) but not in *di*-passives (33) follows Arka and Manning’s (1998) proposal for SI and is motivated there by the ability of bare passive agents to bind reflexive anaphors, unlike *di*-passive agents which are instead adjoined. This structural difference is also a component of subsequent analyses of the two passives, including in Aldridge 2008, Cole, Hermon, and Yanti 2008, and Legate 2014.

The geometry of the verbal phase that we propose here as in (32–34) parallels structures that have been proposed for some other languages (see especially Gallego 2008, Richards 2010, Coon, Mateo Pedro, and Preminger 2014, Hsieh to appear, as well as Collins 2005 on passives), but to our knowledge has never before been entertained for Malayic languages. Previous phase-based proposals for SI and SM such as Aldridge 2008, Cole et al. 2008, Sato 2012, Jeoung 2017, 2018a,b, and Legate 2014 make reference to a single head (called Voice or *v*, depending on the work) which both introduces the agent as its specifier and serves as the phase head; in passive clauses, an internal argument then moves to become its second nominal specifier. As we illustrate below, the separation of these two functions (agent-introduction versus serving as the phase head) across two different functional heads will play a crucial role in our analysis.

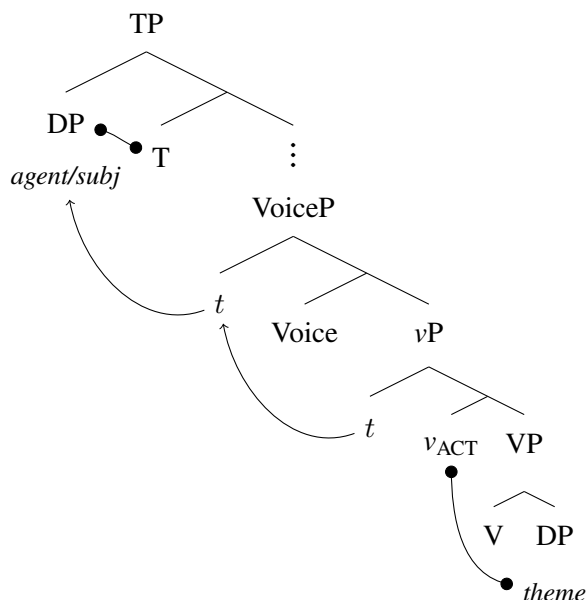
Our proposal for the verbal extended projection with two functional heads, Voice and *v*, facilitates the analysis of voice prefixes in Desa and is in turn supported by it. Specifically, we propose that in the Desa active voice, *v* realizes the homorganic nasal *N*- and Voice is optionally realized as the syllabic prefix *me*-. We assume that the verb is always pronounced in *v*, following head-movement of the verb root to *v*. If the Voice head is linearly adjacent to active *v* (*v*_{ACT}), it may optionally appear as *me*- and affix to the verb. This proposal for *me*- will play a role in our analysis of Desa object extraction clauses in section 3.3 below. We will argue in section 4.1 that this morphological decomposition of *meN*- across two syntactic heads is also motivated for other Malayic languages including SI and SM, even though they do not exhibit free variation between *meN*- and *N*- active verbs as observed in Desa.

Next we describe our additional syntactic assumptions. First, we assume that all clauses project a head T above VoiceP (and other functional projections projecting auxiliaries, if any) which has an EPP

requirement to attract a nominal to its specifier, Spec,TP. This results in the subject linearly preceding any and all auxiliaries. Second, we adopt the view that all noun phrases require *abstract Case licensing* (Vergnaud 1977/2008; Chomsky 1980, 1981). Specifically, three sources of licensing will be relevant for our discussion here: T licenses the nominal that it attracts to Spec,TP; active v (v_{ACT}) can license one nominal that it c-commands; and v (both v_{ACT} and v_{PASS}) can license one nominal that is its surface specifier (Spec,vP, i.e. the agent). That is, nominals that are licensed under c-command by T or v_{ACT} may then move and retain their licensing, whereas movement of a nominal from Spec,vP bleeds its licensing by v . Licensing of Spec,vP by v may alternatively be described as a form of licensing by adjacency with the verb that is evaluated post-syntactically, at Phonological Form (PF); see e.g. Baker 2014, Levin 2015, Erlewine 2018, Erlewine, Levin, and Van Urk 2020. In clauses with additional arguments such as ditransitives, we assume an additional functional head (e.g. Appl) serves to license an additional nominal.

We now illustrate the structure of full clauses in each of the voices, beginning with an active clause. We start with an active VoiceP as in (32) above, with v being the active variety v_{ACT} . v_{ACT} licenses the theme, which it c-commands. Voice attracts the agent to satisfy its need to have exactly one nominal specifier. T subsequently attracts the agent from Spec,VoiceP to satisfy its own need to have a nominal specifier (the EPP requirement) and licenses it. Licensing relationships are indicated by $\bullet \rightarrow$ below. We propose that this structure underlies the “DP_{agent} Aux* Voice+ v +V DP_{theme}” word order of active clauses in Malayic languages.

(35) **Malayic active TP:**



As previewed above, for Desa, we propose that v_{ACT} realizes the short nasal prefix *N-*, with Voice optionally realizing *me-* in the context of v_{ACT} . We adopt *Distributed Morphology*, a realizational model of morphology where the surface forms of terminals are determined from the syntactic structure by the

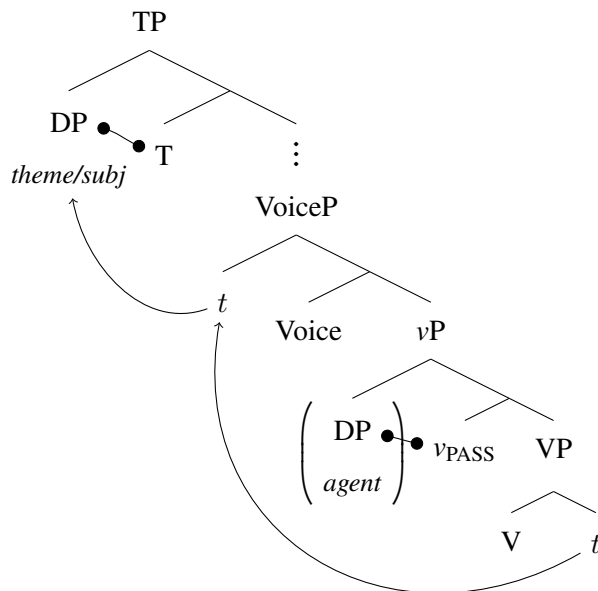
application of appropriate pronunciation rules, called *vocabulary items* (see overviews in Harley and Noyer 1999; Embick and Noyer 2007; Bobaljik 2017 and citations there). We give vocabulary items in (36) for these heads in active clauses in *Desa*, where * indicates linear adjacency (Embick 2010 a.o.). When Voice is realized as *me-*, it affixes to the verb in *v* via Local Dislocation (Embick and Noyer 2001), a postsyntactic operation that requires linear adjacency between Voice and *v* to apply.

(36) **Vocabulary items for active clauses in *Desa*:**

- a. $v_{\text{ACT}} \leftrightarrow N-$
- b. $\text{Voice} \leftrightarrow (me-) / __ * v_{\text{ACT}}$

Next, we turn to the structure of passive clauses. We treat *di*-passives and bare passives as both involving the head v_{PASS} , the defining feature of which is that it lacks the ability to license a nominal it c-commands, unlike v_{ACT} . The tree in (37) below reflects the behavior of both types of passive clauses, as v_{PASS} optionally introduces the agent in Spec,*v*P. In passive clauses, an internal argument (here, the theme) cannot be licensed within VoiceP. Voice attracts this nominal without licensing to its specifier, making it accessible for licensing by T and movement to Spec,TP while obeying phase impenetrability. If an agent is generated in Spec,*v*P, it is licensed directly by *v* as its surface specifier under linear adjacency.

(37) **Malayic passive TP:**



The derivation in (37) thus abstractly yields passive clauses with the word order “DP_{theme} Aux* Voice (DP_{agent}) *v*+V.” We propose that v_{PASS} is itself consistently unpronounced, but conditions the realization of Voice. Specifically, we propose that Voice is realized as *di-* when linearly adjacent to v_{PASS} (where it does not project a specifier), in which case it affixes to *v*+V via Local Dislocation, but is null when linearly adjacent to a nominal instead, i.e. in a bare passive. Corresponding vocabulary items are given

in (38), which also apply to SI and SM. This accounts for the complementary distribution of the *di-* prefix and the immediately preverbal agent of bare passives. In the absence of an agent introduced as an argument of v_{PASS} , an agent can be specified via an adjoined *by*-phrase.

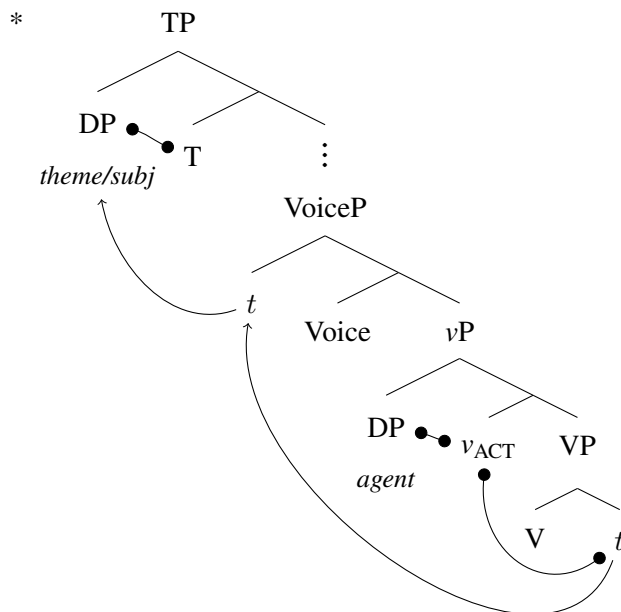
(38) **Vocabulary items for passive clauses in Desa and SI/SM:**

- a. $v_{\text{PASS}} \leftrightarrow \emptyset$
- b. $\text{Voice} \leftrightarrow di- / __ * v_{\text{PASS}}$
- c. $\text{Voice} \leftrightarrow \emptyset / \text{elsewhere}$

We propose that in these basic TP clauses, the choice of v between v_{ACT} and v_{PASS} is one-to-one with the subject being an agent versus a theme or other internal argument. We already described above how clauses built with v_{PASS} necessarily lead to an internal argument becoming the subject for reasons of Case licensing. We now turn to the reason why a derivation with v_{ACT} then leads to the agent becoming the subject, rather than some internal argument.

For the sake of discussion, we present a hypothetical derivation involving v_{ACT} with a theme subject in (39) below. In this derivation, v_{ACT} licenses the theme that it c-commands, which then moves to become the unique nominal specifier of VoiceP. The theme then moves to Spec,TP, making it additionally (redundantly) licensed by T. The agent stays in Spec, v P and is licensed there. Such a derivation, if possible, would predict the grammaticality of a sentence of the form “DP_{theme} Aux* DP_{agent} N-V” in Desa, contrary to fact; see (14).

(39) **Ungrammatical theme subject TP involving v_{ACT} :**



We suggest that the structure in (39) is ruled out by the grammar for one of two reasons. First, the derivation in (39) violates the so-called Activity Condition of Chomsky 2000, 2001, which states that,

“if structural Case has already been checked (deleted), the phrase is... unable to move further to satisfy the EPP in a higher position” (Chomsky 2000: 123). Because the theme in (39) has already received Case licensing from v_{ACT} in its base position, it cannot be attracted by T to satisfy the EPP requirement and we therefore cannot derive the structure in (39). Furthermore, due to the phasehood of VoiceP, there is no other nominal that can be attracted by T to satisfy the EPP. Second, even setting aside the Activity Condition and thus allowing the structure in (39) to be built, the theme will have two, redundant sources of Case licensing: the theme is licensed by v_{ACT} in its base position and is also licensed by T. Either this redundant licensing itself leads to the ungrammaticality of the structure in (39), or else the derivation is “blocked” by the true passive derivation with v_{PASS} as in (37), which has one fewer Case licenser but is nonetheless able to derive the same basic structure with all nominals licensed.

To conclude this section, we schematically represent the full TP structures that we propose for active, *di*-passive, and bare passive clauses in Malayic languages in (40) below. Here we indicate the options for the realization of voice prefixes in Desa, but we propose that these same syntactic structures hold of these clause types in other Malayic languages as well, as we discuss in section 4.1 below.

(40) **TP clause structures for the three voice types:**

	[TP	...	[VoiceP	Voice	[vP	$v+V$	
a. Active:	DP_{ag}	Aux*	t	(<i>me-</i>)	t	$N-V$	DP_{th}
	↑		↑				
b. <i>Di</i> -passive:	DP_{th}	Aux*	t	<i>di-</i>		V	t
	↑		↑				
c. Bare passive:	DP_{th}	Aux*	t		DP_{ag}	V	t
	↑		↑				

The traces in these structures indicate the movement path of the subject. In each case, the subject first moves from its base position to Spec,VoiceP, to satisfy the requirement that VoiceP host exactly one nominal specifier. It then moves from this position to the high subject position, Spec,TP. The intermediate movement step through Spec,VoiceP is necessary because VoiceP is a phase; in Chomsky’s terms, movement from the complement of the phase head (from inside vP) directly out of the phase to Spec,TP would violate the PIC.

3.2 Restrictions on A’-extraction

Next we turn to the possibilities for A’-extraction, by which we refer to processes of relativization, *wh*-movement, focus fronting, and topicalization. We assume that all A’-extractions reflect probing by the complementizer C, which takes TP as its complement. All movement steps must satisfy the locality restrictions imposed by phase impenetrability.

We first consider the A'-extraction of nominals.⁶ If we start with any of the TP structures that we proposed in the previous section, the only nominal that can be attracted by C for A'-movement is the subject. The subject is in Spec,TP, outside of the VoiceP phase, and moved there by passing through Spec,VoiceP. As we proposed above, VoiceP always hosts exactly one nominal specifier, making it impossible to move any other nominal out of the VoiceP phase. Our proposal above therefore immediately predicts the basic subject-only restriction on the A'-extraction of nominals in these languages. We will later discuss the special configurations that instead allow for object extraction below, for Desa in section 3.3 and for other Malayic languages including SI and SM in section 4.2.

Our proposal also correctly predicts that non-nominal constituents can be A'-extracted from within VoiceP, without any restrictions on voice choice. See for example the fronting of a *wh*-containing PP for the *where*-questions below, from an active clause (41a) or from a *di*-passive clause (41b). The examples in (42) show the grammaticality of PP topicalization and *wh*-fronting from an active (42a), *di*-passive active (42b), and bare passive clause (42c). (We predict PP extraction from Desa bare passive clauses to be grammatical as well, but this was not tested in our existing data.) Note in particular that the A'-extraction of PPs from an active clause does not require a prefix-less verb, unlike the extraction of non-subject nominals.

(41) **PP A'-movement is not sensitive to voice, in Desa:**

- a. [PP Di oni] inya { m-oli / mem-oli } beju to ____?
LOC where 3sg N-buy MEN-buy shirt this
'Where did s/he buy this shirt?'
- b. [PP Di oni] beju to di-beli oleh inya ____?
LOC where shirt this PASS-buy by 3sg
'Where was this shirt bought by him/her?'

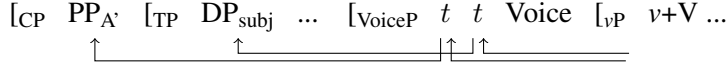
(42) **PP A'-movement is not sensitive to voice, in SI/SM:**

- a. [PP Kepada Ani], Hasan meng-irim-kan surat itu _____. (*meN-kirim-kan* > *mengirimkan*)
to Ani Hasan ACT-send-APPL letter that
'To Ani, Hasan sent the letter.' (SI; Chung 1976a: 78)
- b. [PP Kepada siapa] bunga itu di-beri-kan ____?
to who flower that PASS-give-APPL
'To whom were those flowers given?'
- c. [PP Kepada siapa] bunga itu kau beri-kan ____?
to who flower that 2sg give-APPL
'To whom were those flowers given by you?' (SI; Chung 1976b: 82)

⁶ Note too that nominal *wh*-fronting and focus-fronting constructions in Desa may potentially be analyzed as biclausal structures (pseudoclefts) involving a headless relative introduced by the relative complementizer *yang*. This analytic possibility does not affect our overall account, as we discuss in section 4.5 below.

We hypothesize that VoiceP can host non-nominal specifiers, in addition to its one nominal specifier.⁷ A non-nominal constituent originating within VoiceP can therefore move first to an additional specifier of VoiceP, feeding A'-movement to the clause periphery. Such a derivation is schematized in (43) below, abstracting over the choice of voice and therefore the ν P-internal base position for the subject.

(43) **Non-nominal A'-extraction fed by additional specifier to VoiceP:**



3.3 Object extraction in Desa

Our proposal thus ensures that the subject is the only nominal that can be A'-extracted from Malayic VoicePs built in the manner described in section 3.1 above. However, as we saw in section 2.3 above, Desa allows for another type of clause where an internal argument is A'-extracted, apparently without first undergoing passivization via a *di*-passive or bare passive. We refer to such structures as “object extraction clauses” and give another such example in (44).⁸ In this section, we show how we can derive Desa object extraction clauses with minimal adjustment to our overall proposal.

(44) **An example of Desa object extraction:**

Opai yang tengah inya { **m**-ilau / ***mem**-ilau } ____? (*N-pilau* > *milau*)
 what C PROG 3sg N-look.for **meN**-look.for
 ‘What is s/he looking for?’

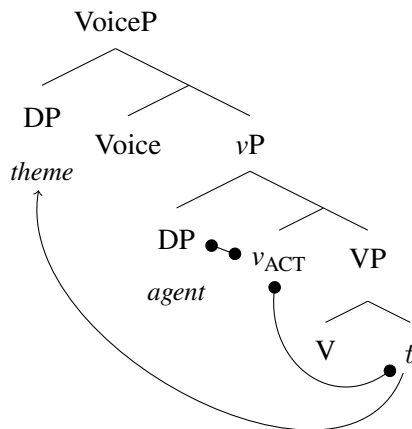
As noted above, Desa object extraction clauses as in (44) defy straightforward classification in terms of the three basic voices that we have been discussing. First, the verb in object extractions bears the short active prefix *N-*, and the full active prefix *meN-* is ungrammatical. This is unlike active clauses where the two active prefix forms are in free variation, and is also unlike the passive clauses where the verb must bear a *di-* prefix or no voice prefix at all. Second, the agent is in immediately preverbal position, following any auxiliaries such as *tengah* in (44). The agent cannot precede auxiliaries, as we showed in example (28) above. The position of the agent thus makes object extraction clauses seem most similar to the bare passive, but we note again that bare passive clauses disallow any voice prefix, including the short prefix *N-*. See example (14) as well as our explanation for this fact in (39) above.

We first present our analysis for grammatical object extractions with *N-*, and then discuss the unavailability of the full active prefix *meN-* below. We propose that object extraction clauses have a VoiceP structure with the head ν_{ACT} but where an internal argument moves to become the sole nominal

⁷ Van Urk and Richards (2015: 129–133) and Bossi and Diercks (2019: 16–19) similarly propose functional heads that can attract exactly one nominal and optionally also a non-nominal constituent, for Dinka and Kipsigis respectively.

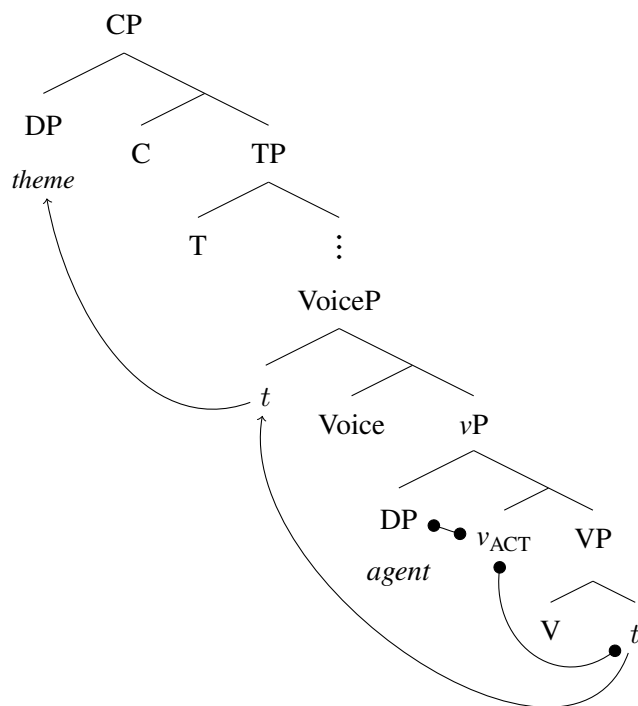
specifier of VoiceP. We illustrate such a VoiceP structure in (45), again for a transitive verb with agent and theme arguments. As indicated below, both nominals can be Case-licensed within this structure: v_{ACT} licenses the theme that it c-commands and the agent is licensed by being the surface specifier of v . The combination of v_{ACT} together with movement of theme to Spec,VoiceP makes (45) distinct from the VoiceP structures for all three basic clause types, presented in (32–34) above, reflecting again the fact that object extraction clauses cannot be reduced to one of the basic clause types.

(45) **Object extraction VoiceP:**



We have, in fact, briefly discussed this type of VoiceP in section 3.1 above. There, we argued that it is not possible to use such a VoiceP to derive a TP with a theme subject, as sketched in (39). As we discussed there, movement of the theme from Spec,VoiceP to the high subject position (Spec,TP) is either not possible due to the Activity Condition or else leads to a redundant source of licensing and may be blocked by a simpler derivation instead. However, we propose that the VoiceP in (45) *does* result in a grammatical structure if the theme in Spec,VoiceP undergoes A'-movement to Spec,CP instead, bypassing Spec,TP. We present this full structure in (46).

(46) **Deriving Desa object extraction:**



Because the A'-extracted argument does not move through Spec,TP, it cannot be licensed by T and therefore must have been structurally Case-licensed within VoiceP. Object extraction clauses therefore must use the v_{ACT} head, which serves as a Case licenser, unlike v_{PASS} . As per our proposal for Desa morphological realization in (36) and (38) above, v_{ACT} is realized as *N-*, explaining the appearance of the short form active prefix in Desa object extraction, as in (44).

The derivation in (46) however requires us to build a clause without filling the Spec,TP subject position. Recall that in Desa clauses of all three basic clause types (without A'-extraction, in section 2.2), there is always a nominal that occupies a high, clause-initial position, preceding any and all auxiliaries. Formally, this suggests that Desa exhibits the so-called EPP property, that Spec,TP must be filled by a nominal argument, and we take this requirement to hold in all non-A'-extraction clauses. However, work on the interaction of A'-extraction and subjecthood suggests that, in some languages, the EPP requirement is relaxed specifically when a nominal is A'-moved to Spec,CP.⁹ We propose that Desa is one such language: Spec,TP stays empty in clauses involving nominal A'-extraction.

Finally, we return to the issue of the voice prefix in object extraction clauses. Recall that the verb in object extraction clauses bears the short active prefix *N-*, unlike in bare passives, but cannot bear the long *meN-* active prefix, unlike in active clauses. See example (44). This is precisely what we predict from the derivation for object extraction clauses in (46) as well as our proposal for the allomorphic realization

⁹ Motivating examples include non-subject A'-constructions with postverbal subjects in Romance (see e.g. Barbosa 2001 and citations there) and Kilega (Bantu; Kinyalolo 1991; Carstens 2005), Scandinavian stylistic fronting (see e.g. Holmberg 2000; Sigurðsson 2010) and English *as*-parentheticals (Postal 2004) and locative inversion (Bruening 2010). See for example Carstens 2005, Legate 2011, 2014, and Erlewine 2018, 2020 for formal proposals for such interactions.

of Voice and v in Desa. We repeat our vocabulary items for Desa verbal functional heads in (47).

(47) **Vocabulary items in Desa:**

(from (36, 38) above)

- a. $v_{\text{ACT}} \leftrightarrow N-$
- b. $v_{\text{PASS}} \leftrightarrow \emptyset$
- c. i. Voice $\leftrightarrow (me-)/ ___ * v_{\text{ACT}}$
- ii. Voice $\leftrightarrow di-/ ___ * v_{\text{PASS}}$
- iii. Voice $\leftrightarrow \emptyset / \text{elsewhere}$

First, as also noted above, the prefix $N-$ appears as the realization of v_{ACT} , which is necessary to Case-license the object that then A' -moves to Spec,CP (46). Second, $me-$ cannot appear because the agent linearly intervenes between Voice and v in (46), therefore bleeding the application of the vocabulary item in (47ci). In addition, even if Voice were to be realized as $me-$ in this structure, it would then fail to affix to the verb, as we discuss further in section 4.5.

In summary, the specification that Voice's overt allomorphs are prefixes, together with the low position of agents in Spec,vP in object extraction clauses (as well as in bare passives), conspires to require that Voice be realized by the null allomorph in this configuration. In contrast, the presence of the low agent does not affect the pronunciation of v as $N-$, which appears transparently in Desa due to the possibility of pronouncing $N-$ without $me-$ in the language, unlike in SI and SM.

4 Explaining “ meN -deletion” in Standard Indonesian and Malay

We now extend our analysis to Standard Indonesian and Malay (SI/SM), where the interaction of voice and A' -extraction has received significant attention in prior theoretical literature. We begin in section 4.1 by presenting our proposal for the basic clause types in SI and SM, which follows our proposal for Desa above, with only a minor difference in their morphological realization. We then present our analysis of object extraction in SI and SM in section 4.2. We will show that grammatical patterns of object extraction, including the obligatory disappearance of the $meN-$ prefix in such clauses (“ meN -deletion”), are predicted straightforwardly from our overall proposal together with Fox and Pesetsky's (2005) *Cyclic Linearization* theory for the nature of phase impenetrability effects.

Although many previous works have offered analyses for the “ meN -deletion” effect, they do so by proposing that the morphological realization of voice is sensitive to the presence of nominal A' -movement across the verb. The fact that the resulting allomorph is a null allomorph is accidental on these accounts. As we show in section 4.3, the fact that voice is unpronounced is a critical and non-accidental aspect of object extraction, which our Cyclic Linearization-based proposal offers a principled explanation for.

We then discuss a number of accurate predictions that our analysis makes in contrast to its potential alternatives in section 4.3, and then address the treatment of null operators in our proposal in section 4.5.

4.1 Clause structure and voice realization in SI/SM

As noted above, we intend for our proposal for the basic clause types in Desa, presented in section 3.1 above, to also extend to other Malayic languages, including SI and SM. Here we reiterate the key features of this analysis and then discuss how we capture the one point of morphological divergence between Desa and SI/SM below.

The most important feature of our proposal for Malayic syntax presented above is the organization of the verbal phase, which we call VoiceP. Voice always hosts exactly one nominal specifier, which moves there from a lower thematic position. In the basic clause types, this one nominal is the subject. In an active clause, the subject is the external argument which originates in Spec,vP; in a passive clause, it is an internal argument generated lower in the clause. The subject then moves up to a high subject position (Spec,TP), so it linearly precedes any auxiliaries projected above VoiceP.

We give schematic structures for the three basic clause types — active, *di*-passive, and bare passive — in (48) below, repeated from (40) above, with minor adjustment to the realization of active functional heads. The syntactic derivations for these three clause types in SI and SM are thus exactly the same as in Desa, presented in greater detail in section 3.1 above.

(48) **TP clause structures for the three voice types: =(40)**

	[TP	...	[VoiceP	Voice	[vP	v+V	
a. Active:	DP _{ag}	Aux*	<i>t</i>	<i>me-</i>	<i>t</i>	<i>N-V</i>	DP _{th}
	↑		↑		↑		
b. <i>Di</i> -passive:	DP _{th}	Aux*	<i>t</i>	<i>di-</i>		<i>V</i>	<i>t</i>
	↑		↑				↑
c. Bare passive:	DP _{th}	Aux*	<i>t</i>		DP _{ag}	<i>V</i>	<i>t</i>
	↑		↑				↑

The only difference between Desa and the standard languages in these basic clause types is in the realization of active voice verbs. Recall that active voice verbs in Desa may bear the long prefix *meN-* or the short prefix *N-*, whereas active voice verbs in SI and SM are always introduced by the full form *meN-*. For Desa, we proposed to treat *N-* as the realization of v_{ACT} and *me-* as the optional realization of Voice in the context of v_{ACT} ; see (49), repeated from (36) above. In contrast, we propose that in SI and SM, both v_{ACT} and Voice must realize their overt affix when linearly adjacent to one another, as in (50a,b), with null allomorphs as their elsewhere case in (50c). These vocabulary items correctly predict that neither *me-* nor *N-* appear in isolation in SI and SM, unlike in Desa. We also adopt the vocabulary items for passive clauses from Desa in (38) above.

(49) **Vocabulary items for active clauses in Desa:** =(36, 38c)

- a. $v_{\text{ACT}} \leftrightarrow N-$
- b. $\text{Voice} \leftrightarrow (me-) / __ * v_{\text{ACT}}$
- c. $\text{Voice} \leftrightarrow \emptyset$ otherwise

(50) **Vocabulary items for active clauses in SI/SM:**

- a. $v_{\text{ACT}} \leftrightarrow N- / \text{Voice} * __$
- b. $\text{Voice} \leftrightarrow me- / __ * v_{\text{ACT}}$
- c. $v_{\text{ACT}} / \text{Voice} \leftrightarrow \emptyset$ otherwise

The idea that active verb forms with *meN-* in SI and SM reflect two prefixes, *me-* and *N-*, is suggested by Benjamin (2009) and Gil (2002). Initial evidence for this decomposition comes from *pe*-nominalizations. Agent- or experiencer-oriented nominalizations are introduced by the form *peN-* whereas internal-argument-oriented nominalizations are formed with *pe-* alone. A minimal pair that illustrates the two types comes from the stem *kasih* ‘love’: *pe-ng-asih* (<*pe-N-kasih*) ‘one who loves’ versus *pe-kasih* ‘one who is loved’ (Benjamin 2009: 304, crediting Hassan 1974). The phonological realization of the nasal *N* in *peN-* nominalizations is furthermore identical to that of the nasal *N* in *meN-* active verbs; see e.g. Sneddon 1996: 9–14. Such facts support the identification of *N-* as the external argument-introducing head v_{ACT} , which may form part of a *me-* active verb or a *pe-* nominalization. See also an additional argument for the decomposition of *meN-* from patterns of verbal reduplication in Benjamin 2009: 298, attributed there to Hendon 1966: 46–47.

Next we address patterns of A'-extraction in SI and SM. Recall that the subject is the only nominal that can be A'-extracted from each of the basic clause types, with the exception of object extraction with “*meN*-deletion,” which we discuss in the next section. The basic subject-oriented extraction restriction is explained by VoiceP being a phase. As introduced in section 3.2 above, phases can be described as being subject to the Phase Impenetrability Condition (PIC), which suggests that phrasal movement out of a phase must proceed through the phase head's specifiers, also described as the “phase edge.” As Voice always hosts exactly one nominal specifier, the subject, we predict that no other nominals can move out of VoiceP in the basic case. The subject that moves first to Spec,TP is the only nominal that can be A'-extracted from the clauses in (48). We accurately predict that non-nominal constituents, however, can move through the phase edge and therefore may undergo A'-extraction; see examples in (42) above.

In summary, we propose that the syntactic derivations for the basic clause types in SI and SM are identical to those in Desa, with only a minor difference in the morphological realization of active voice verbs. This proposal derives the basic subject-only A'-extraction restriction in the same way that we did for Desa, due to the phasehood of VoiceP.

4.2 Object extraction in SI/SM and Cyclic Linearization

We turn next to the derivation of object extraction clauses in SI/SM, which appears to violate the basic subject-only restriction on nominal A'-extraction. We will show that, by adopting a particular theory for the mechanism behind phase impenetrability effects, our proposal for Malayic clause structure above predicts precisely the availability of object extraction across a verb with no voice prefix. Ours is thus the first proposal for the so-called “*meN*-deletion” effect that offers a deeper explanation for the link between object extraction and the absence of the voice prefix, as we discuss further in section 4.3. We will then show in section 4.4 that this proposal makes a number of positive predictions regarding object extraction in SI/SM.

We begin by briefly reiterating the key features of object extraction clauses in SI/SM, illustrated with the topicalization example in (51). Object extraction clauses involve A'-extraction of a nominal that is an internal argument of the verb. The external argument (*Badu* in (51)) appears in the high subject position, preceding any preverbal auxiliaries (*sudah*), just as in active clauses. The verb cannot bear a voice prefix, as in bare passive clauses but unlike active clauses.

(51) **Object extraction in SI/SM has high agent and no voice prefix:**

Buku ini Badu sudah { ***mem**-baca / baca } ____.
book this Badu ASP ACT-read read
'This book, Badu has read.'

(SI; Voskuil 2000: 199)

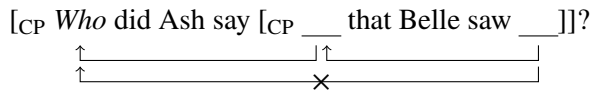
Against the backdrop of our discussion thus far, the most notable feature of SI/SM object extraction clauses is that two nominals move simultaneously out of VoiceP: an internal argument (here: *buku ini*) A'-moves to the clause periphery, Spec,CP, and the agent (*Badu*) moves to the subject position, Spec,TP. This makes SI/SM object extraction clauses unlike all other clause types, and not derivable based on our proposal as presented so far. As discussed above, we propose that VoiceP always hosts exactly one nominal specifier and is a phase; assuming that only the specifiers of a phase can move out — due to the Phase Impenetrability Condition (PIC) of Chomsky 2000, 2001 — we then predict it to be impossible for multiple nominals to move simultaneously out of VoiceP.

We argue that we can derive the possibility of object extraction in SI/SM — including its obligatory absence of a voice prefix, as well as many other aspects of this construction (in section 4.4 below) — from our overall proposal for Malayic syntax, by refining our characterization and understanding of phase impenetrability effects. We will continue to maintain that VoiceP constitutes a phase and always hosts exactly one nominal specifier.

So far in our discussion, we have made reference to the PIC, proposed by Chomsky (2000: 108, 2001: 13), which claims that only the “edge” of a phase (its head and specifiers) is accessible for syntactic operations from outside the phase. The PIC was proposed to account for the observation

that phrasal movement is *successive-cyclic*; that is, that apparent cases of long-distance (especially cross-clausal) movement involves multiple, more local steps of movement. For instance, long-distance *wh*-movement in the English (52) has been argued to first stop at the intermediate Spec,CP position and then move to its surface position (see e.g. Chomsky 1973, 1977 and a recent overview in Van Urk 2020). Assuming that full clauses (CPs) are phases, movement directly from the embedded object position to the surface position would descriptively violate the PIC.¹⁰

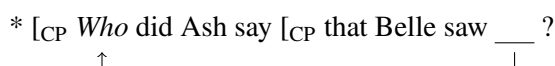
(52) **Long-distance movement is successive-cyclic:**



Fox and Pesetsky (2005) develop a particular view of phasehood which has the effect of deriving many such restrictions on non-successive-cyclic movement, without having to rigidly stipulate the PIC as a condition on syntactic operations. Under their theory, dubbed *Cyclic Linearization*, after each full phase has been built, it undergoes *Spell-Out*, wherein the pronunciation and linearization of its contents are determined. The contents of the linearized phase can still be targeted by syntactic operations in a higher phase, including movement, as long as the relative ordering established by earlier *Spell-Out* is not contradicted.

Let us see how the theory of Cyclic Linearization serves to enforce the successive cyclicity of movement in (52). We again assume each CP to be a phase (see note 10 on the verbal phase). We first consider the ungrammatical derivation in (53), where *wh*-movement does not involve an intermediate step to the embedded clause edge. When the embedded CP is complete, *who* is still in the object position. At embedded CP *Spell-Out*, we therefore establish that *who* must follow the other constituents in the embedded CP; see (53a). We then build the matrix CP, including moving the embedded object *who* directly to the matrix Spec,CP. At matrix CP *Spell-Out*, we then establish that *who* must precede the other constituents in the matrix CP; see (53b). This yields an ordering contradiction: we established that *who* follows the other material in the embedded clause but also must precede it. The impossibility of linearizing the entire structure leads to its ungrammaticality.

(53) **One-fell-swoop movement yields an ordering paradox:**



a. Linear order relations at embedded CP *Spell-Out*:

$$C_{that} < DP_{Belle} < V_{saw} < DP_{who}$$

¹⁰ Assuming that maximal verbal projections (for Chomsky, vP) are also phases, movement must proceed through the edge of these intermediate phases as well. For ease of presentation, we do not illustrate effects of the verbal phase in (52–54).

b. Linear order relations at matrix CP Spell-Out:

$$DP_{who} < C_{did} < DP_{Ash} < V_{say} < CP$$

$$\Rightarrow \text{ordering paradox! } (DP_{who} < \dots < V_{say} < C_{that} < \dots < DP_{who})$$

We avoid this ordering paradox if *who* instead moves first to the edge of the embedded CP as in (54). Spell-Out of the embedded CP establishes that *who* precedes all other material in the embedded clause; see (54a). After the *wh*-word is moved further, Spell-Out of the matrix CP records that *who* precedes all other material there as well. Linearization of the entire structure succeeds in this case, resulting in the total ordering in (54c), explaining the need for successive cyclic movement.

(54) **Successive-cyclic movement avoids an ordering paradox:**

[_{CP} *Who* did Ash say [_{CP} ____ that Belle saw ____ ?
 \uparrow ————— \downarrow \uparrow ————— \downarrow

a. Linear order relations at embedded CP Spell-Out:

$$DP_{who} < C_{that} < DP_{Belle} < V_{saw}$$

b. Linear order relations at matrix CP Spell-Out:

$$DP_{who} < C_{did} < DP_{Ash} < V_{say} < CP^{11}$$

c. Total ordering possible:

$$DP_{who} < C_{did} < DP_{Ash} < V_{say} < C_{that} < DP_{Belle} < V_{saw}$$

Fox and Pesetsky (2005) argue that this theory of Cyclic Linearization explains apparent phase impenetrability effects on overt movement, and in fact is empirically superior to simply mandating through the PIC that only the phase edge is accessible for movement. What makes the edge of the phase special is not its structural position, but rather that it is linearly leftmost in the phase, and therefore its leftward movement will not contradict previous ordering relations. Further work that supports the Cyclic Linearization approach to phase impenetrability effects include Ko 2007, 2011, 2014, Sabbagh 2007, Medeiros 2013, Erlewine 2017, Davis 2020a,b, 2021, Lee 2021, and citations there.

We return now to extraction from the Malayic VoiceP. Adopting the theory of Cyclic Linearization in place of the PIC, we make a very precise prediction about the extraction of nominals. Simultaneous movement of two nominals out of VoiceP should be possible, as long as they are leftmost in the VoiceP phase and move in an order-preserving fashion. We argue that this is precisely what happens in object extraction clauses. Concretely, we illustrate the derivation of the object topicalization example in (51), repeated here as (55) below.

¹¹ See Fox and Pesetsky 2005, especially its appendix, for discussion of the linearization of trace positions of movement. Here it suffices to treat the precedence relation “< CP” as indicating precedence with respect to the unmoved parts of CP, and similarly for VoiceP in (57) below.

(55) **Object topicalization in SI/SM: =(51)**

Buku ini Badu sudah { ***mem**-baca / baca } ____.
book this Badu ASP ACT-read read

‘This book, Badu has read.’

(SI; Voskuil 2000: 199)

We first build a VoiceP as we did for object extraction clauses in Desa in section 3.3 above. We use v_{ACT} to introduce the agent and Case-license the theme, and then move the theme to Spec,VoiceP. This results in the VoiceP structure schematized in (56a) below. Because VoiceP is a phase, it undergoes Spell-Out after its derivation is complete, establishing the morphological forms for its contents as well as their relative linear order. We first address the morphological realization of Voice and v . Recall that Voice and v_{ACT} are realized as *me-* and *N-* respectively if and only if they are linearly adjacent to one another; see (50). Because the two heads are not linearly adjacent at this point, they are both realized with their null, elsewhere forms as in (56b). Next, we record the relative ordering of the contents of the phase. Ordering statements are not generated with reference to null heads, as proposed in Erlewine 2017 and reflecting the pruning of null terminals (Embick 2003, 2010), leaving us only with the linear order statements for phrases and overt heads in (56c).

(56) **Object extraction VoiceP:**

- a. [VoiceP DP_A Voice [vP DP_{ag} v_{ACT+V} t]

- b. Vocabulary insertion:

[VoiceP DP_{A'} Voice [_{VP} DP_{ag} v_{ACT+V} t

Ø- Ø-*ba*ca

- c. Linear order relations at VoiceP Spell-Out:

$$DP_{buku\ ini} < DP_{Badu} < v+V_{baca}$$

Next we build the higher phase of the clause. We posit an AuxP projection to host the temporal auxiliary *sudah* and then build TP, moving the agent to Spec,TP where it will be Case-licensed. The C head above attracts the theme to Spec,CP.¹² The complete derivation for (55) is thus reflected in (57) below. At CP Spell-Out, we establish the ordering statements in (57b).

(57) **Object extraction CP:**

- a. $[_{CP} \text{ DP}_A \text{ C } [_{TP} \text{ DP}_{ag} \dots [_{VoiceP} \text{ } t \text{ Voice } [_{VP} \text{ } t \text{ } v_{ACT+V} \text{ } t \dots]]]]$

- b. Linear order relations at CP Spell-Out:

$$\text{DP}_{\text{buku ini}} < \text{DP}_{\text{Badu}} < \text{Aux}_{\text{sudah}} < \text{VoiceP}$$

¹² Recall that the external argument stays in-situ and does not move to Spec,TP in *Desa* object extraction clauses. We therefore proposed that the EPP requirement does not hold in *A'*-extraction clauses in *Desa*; see footnote 9. In contrast, the EPP must still be satisfied in *SI/SM* object extraction, triggering movement of the external argument to Spec,TP.

c. Total ordering possible:

$$DP_{buku\ ini} < DP_{Badu} < Aux_{sudah} < v+V_{baca}$$

The linearization statements established at VoiceP and CP Spell-Out are compatible with each other in this case, together producing the total ordering for the utterance in (57c). The movements of the theme and agent are order-preserving, requiring at each phase for *buku ini* to precede *Badu*. Furthermore, as these two constituents were the two leftmost parts of VoiceP as linearized in (56c), their further movement in (57) did not cross any overt material linearized in VoiceP which would have led to an ordering paradox. In particular, this simultaneous movement of the theme and agent was made possible by the null allomorph of Voice, independently motivated for the derivation of the bare passive. We discuss the explanation that our proposal offers for the so-called “*meN*-deletion” effect, in relation to previous accounts of the effect, in section 4.3 below.

In the remainder of this section, we briefly discuss differing definitions for the notion of “subject” that our analysis brings to the fore (§4.2.1), highlight how our analysis can be extended to the analysis of object extraction clauses in other dialects and languages of the region (§4.2.2), and then briefly summarize our account (§4.2.3).

4.2.1 On the notion of “subject”

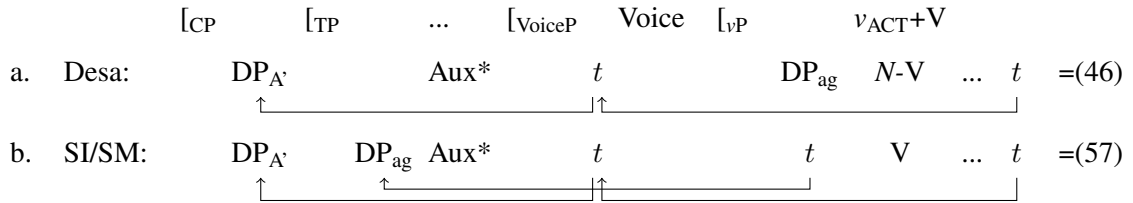
A brief terminological note on the notion of “subject” is order here. Based on our overall proposal for Malayic clause structure above, we might choose to identify the “subject” using one of the three descriptions in (58) below.

- (58) The “subject” is the unique nominal that...
- a. occupies (or moves through) Spec,VoiceP;
 - b. occupies (or moves through) Spec,TP; or
 - c. is in the highest A-position (i.e. is Case-licensed in the highest position) in the clause.

In the three basic clause types in Malayic languages, these three definitions in (58) all identify the same nominal as the subject. In these derivations, the unique nominal specifier of VoiceP moves to Spec,TP to satisfy the EPP requirement and is Case-licensed there. See the derivations for these three clause types as in (48) above as well as the discussion of Case-licensing mechanisms in section 3.1 above.

In the derivations we propose for object extraction clauses in SI/SM here, as well as for *Desa* in section 3.3 above, the three definitions in (58) do *not* pick out the same nominal. We schematically illustrate the derivations we propose in (59) below. Recall that the agent stays low (following any auxiliaries) in *Desa* but not in SI/SM; see the *Desa* example (28) versus the SI/SM (24) and (51/55) above.

(59) **Object extraction clause structures in SI/SM and Desa:**



In these object extraction clauses, it is the A'-extracted nominal that passes through the unique specifier of Spec,VoiceP (definition 58a), but it is always the external argument that occupies the highest A-position (definition 58c): it is Case-licensed in Spec,vP under adjacency with *v* in Desa and in Spec,TP in SI/SM. Finally, Spec,TP is occupied by the agent in SI/SM but is left empty in Desa, as discussed in section 3.3 above (definition 58b).

For concreteness, here we follow definition (58c) in our discussion throughout: the subject is the nominal in the highest A-position in the clause. This accords with our description of these structures as in (59) as “object extractions,” as well as the common description of these structures as “object extraction across an active verb with *meN*-deletion” in prior literature, which would be complicated if we instead choose to associate “subject” with Spec,VoiceP as in (58a). Ultimately, this is a terminological question, which we wish to highlight and acknowledge here.

4.2.2 Extensions to other dialects and languages with *N*- active forms

In this section, we briefly discuss the availability of object extraction in other varieties of Malay/Indonesian and related languages of the region. In many such colloquial and regional varieties, active verb forms bear a shorter active prefix such as *N*- rather than the full *meN*- form of the standard languages (see e.g. Gil 2002; Cole et al. 2008). When we consider the possibility of object A'-extraction in these varieties, two patterns of behavior emerge.

The first pattern, exemplified here by Jakarta Indonesian, parallels the “*meN*-deletion” interaction between voice morphology and extraction in SI/SM above. In Jakarta Indonesian, active verbs optionally bear the *N*- active prefix, as in (60a). A'-extraction of the subject is possible from an active clause with or without the prefix (60b), as well as from other, non-active clause types (not shown here). A'-extraction of an object is possible only if the verb bears no prefix, as in (60c) below.

(60) **Extraction from Jakarta Indonesian actives:**

a. *N*- and bare actives:

Anak itu { **nge**-baca / baca } buku.
 child that N-read read book
 ‘The child is reading a book.’

b. Subject extraction:

Siapa yang ____ { **nge**-baca / baca } buku?
 who C N-read read book
 ‘Who is reading a book?’

c. Object extraction:

‘What is the child reading?’

Apa yang anak itu { ***nge**-baca / baca } ____?
 who C child that N-read read

(Tjung 2006: 22–24)

Like SI and SM, Jakarta Indonesian also has bare passives with immediately preverbal agents. As Tjung (2006) shows, A'-extraction of a theme can cross a high subject that precedes auxiliaries as in (61), indicating that the possibility of theme extraction across a bare verb cannot be reduced to the existence of bare passives (see also Cole et al. 2006).

(61) **Subject can be high in Jakarta Indonesian object extraction:**

Buku [_{RC} yang gua nggak lagi baca ____] mahal.
 book C 1sg NEG PROG read expensive

‘The book that I am not reading is expensive.’

(*ibid.*: 25)

The same pattern of behavior — object extraction that is possible when the active prefix *N-* is absent, with a high subject that precedes auxiliaries — is also attested in Sarang Lan Malay (Cole et al. 2008: 1524–1527) and three dialects of Jambi Malay (Yanti 2010: Tanjung Raden, pp. 46–47; Jambi City, pp. 52–53; Mudung Darat, pp. 58–60). It is also attested in some non-Malayic languages of the region with similar, so-called Indonesian-type syntax, including Semarang Javanese (Cole et al. 1999b), Kendal Javanese (Sato 2012), and polite Madurese (Jeoung 2017).

For these languages, we propose that the active prefix *N-* is a realization of the head Voice. (We give a more detailed presentation for the case of polite Madurese in section 4.3.2 below.) Adopting our overall proposal for the Malayic VoiceP above — for these Malay/Indonesian dialects as well as nearby non-Malayic languages that exhibit this same behavior — our Cyclic Linearization analysis explains the possibility of object A'-extraction and simultaneous subject raising being dependent on the non-realization of Voice as *N-*.

A second pattern of behavior is attested in Kuching Malay as described in Cole et al. 2008. Object extraction is possible whether across a *N*-prefixed active verb or a bare active, as we see in (62). Treating *N-* as the realization of *v* as we have for Desa and SI/SM, we predict this possibility of object extraction.

(62) **Object extraction in Kuching Malay:**

Apa (nok) kitak { **n**-anam / tanam } ____?
 what C 2 N-plant plant

‘What did you plant?’

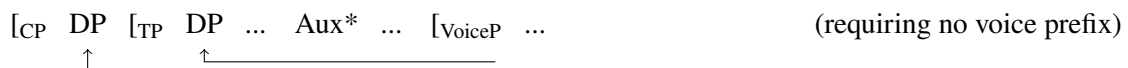
(Cole et al. 2008: 1548–1549)

In summary, our overall proposal for Malayic clausal syntax can account for varieties where an overt verbal prefix blocks object extraction or not, which we may attribute to differences in the verbal functional head that realizes the prefix.

4.2.3 Summary

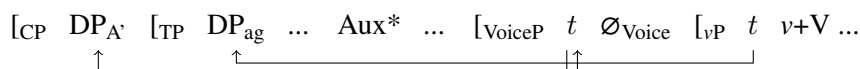
In this section, we presented our proposal for the syntax of object extraction clauses in SI and SM. Following discussion in Soh 1998 and Cole and Hermon 1998, we have emphasized that two nominals move simultaneously out of VoiceP in these constructions: one to Spec,TP (the subject) and one to Spec,CP, as schematized in (63). We claim that the limited circumstances under which such a derivation is possible explain various characteristics of these object extraction constructions.

(63) Moving two nominals out of VoiceP:



In particular, under our proposal, (63) is only possible if the nominal in Spec,CP was the unique nominal specifier of VoiceP and the nominal is the local external argument, generated in Spec,vP. A null Voice head makes these two nominals leftmost in the phase and therefore eligible for simultaneous leftward, order-preserving movement, as illustrated in (64), according to the Cyclic Linearization theory of phasehood.

(64) How to move two nominals out of VoiceP:



In the next two sections, we highlight a number of positive features and predictions of our proposal for these constructions. First, our proposal predicts that the link between the possibility of object extraction and the non-pronunciation of Voice — i.e. the so-called “*meN*-deletion” effect — is not accidental. We discuss and further motivate this view in section 4.3. Second, our proposal makes a number of predictions regarding what kinds of nominals may appear in the Spec,CP and Spec,TP positions in an object extraction structure as schematized in (63). We articulate and verify these predictions in section 4.4.

4.3 On the importance of null Voice

The nature of the “*meN*-deletion” effect has received significant attention in previous theoretical work on SI and SM, but prior analyses effectively stipulate that object extraction leads to the null voice allomorph. Although many details differ, these prior proposals share the following intuition. The functional head associated with the voice prefix may bear different formal features, depending on whether a non-subject nominal A'-moves over it or not. (For some authors, this reflects the presence of a feature that triggers the movement, while others make reference to a feature that reflects that such movement has taken place.)

The resulting feature bundle associated with movement of a non-subject is realized as a null allomorph. See proposals to this effect in Aldridge 2008: 1456, Cole et al. 2008: 1535, Sato 2012: 41–42, Georgi 2014: 151–156, Erlewine 2016: 304–305, Jeoung 2017: 31, 2018a: 95–96, 2018b: 25, and Keine and Zeijlstra to appear. For these accounts, there is no deeper reason why the allomorph that appears in such cases is a null allomorph. The extraction-indicating allomorph could just as well be a different overt form, as is the case for Irish complementizer morphology (McCloskey 1979, 2001) or Chamorro *wh*-agreement (Chung 1982, 1998); see also Georgi 2017 for an overview of such morphology.

In contrast, our approach here directly predicts that Voice must be null to allow for object extraction to occur. To see why this is the case, let us consider what would happen if we build an object extraction clause following the proposal above as in (65a) below, but Voice then realizes an overt form such as *me-*. At VoiceP Spell-Out, we establish that *me-* precedes the agent DP in Spec,vP. In the construction of the CP, we move the agent DP to Spec,TP, as well as the nominal in Spec,VoiceP to Spec,CP, in an order-preserving fashion. However, CP Spell-Out determines that the moved agent DP must precede all non-moved parts of VoiceP, including *me-*. We are then left with two contradicting ordering statements — Voice both precedes and follows the agent DP — leading to the ungrammaticality of this structure. It is precisely this conflict which we avoid when the realization of Voice is null and thereby pruned.

(65) **Ungrammatical object extraction with overt Voice:**

$$\text{a. } [\text{CP } \text{DP}_{A'} \text{ C } [\text{TP } \text{DP}_{\text{ag}} \dots [\text{VoiceP } t \text{ Voice } [\text{vP } t \text{ v}_{\text{ACT}+\text{V}} t]]]] \quad = (57)$$

b. Linear order relations at VoiceP Spell-Out:

$$\text{DP}_{A'} < \text{Voice}_{me-} < \text{DP}_{\text{ag}} < v+V \dots$$

c. Linear order relations at CP Spell-Out:

$$\text{DP}_{A'} < \text{DP}_{\text{ag}} < \dots < \text{VoiceP}$$

$$\Rightarrow \text{ordering paradox! } (\text{DP}_{\text{ag}} < \text{Voice}_{me-} < \text{DP}_{\text{ag}})$$

We have furthermore proposed that the realization of Voice as *me-* is one-to-one with the realization of v_{ACT} as *N-* in SI and SM (50), unlike in Desa. Therefore, in object extraction clauses in SI and SM, the verb must bear no voice prefix. In this way, our account derives the so-called “*meN*-deletion” effect. In section 4.3.1 below, we present additional facts from SI and SM that strengthen this view of the importance of null Voice for object extraction.

Our proposal also offers a new understanding for the relationship between the bare passive and object extraction clauses. Although object extraction clauses cannot be simply reduced to instances of bare passives — due to differences in the position of their agents, as observed first by Soh (1998) and Cole and Hermon (2005) and reviewed in section 2.3 above — both require Voice to not be realized as an

overt prefix. In bare passives (as well as object extraction clauses in Desa; see §3.3), if Voice were to be realized as an overt prefix such as *di-*, it would fail to affix to *v+V* via Local Dislocation, as the agent DP intervenes between the two heads. Under our analysis for SI and SM, we propose that overt allomorphs are inserted for Voice when linearly adjacent to *v* (38, 50). The agent DP intervenes between Voice and *v+V* at VoiceP Spell-Out in both bare passives and object extraction clauses, correctly leading to the insertion of the null allomorph in these cases. In section 4.3.2 below, we present facts from two registers of Madurese which further support this link between the bare passive and object extraction clauses.

4.3.1 Evidence from “*ber*-deletion” and prefixless psych verbs

Support for our proposal comes from the behavior of clauses with *ber*-prefixed verbs, as well as the behavior of inherently prefixless psych verbs that we introduce below. The prefix *ber-* is frequently described as a middle voice form, often resulting in intransitive predicates or transitives with various interpretational restrictions, depending on the stem. For more on the description of *ber-* and its range of uses, see for example Wee 1995, Wong 1998, Benjamin 2009, Fortin and Soh 2014, Beavers and Udayana 2023, and citations there.

Fortin and Soh (2014) report that a class of stems express *ber-* optionally and can be transitive, in both Indonesian and Malay. Soh (1998, 2013) and Fortin and Soh (2014) report that such verbs exhibit an interaction with A'-extraction that echoes the “*meN*-deletion” pattern: its object can be A'-extracted but only if the *ber-* prefix is absent; see (66c). In contrast, subject A'-extraction does not restrict the choice of *ber-* prefix realization; see (66b).

(66) **Extraction from *ber-* transitive clauses:** (Soh 2013: 169, Fortin and Soh 2014)

a. Baseline transitive *ber-*:

Dia (**ber-**)main permainan komputer sampai larut malam.
 3sg MID-play game computer until midnight
 ‘S/he played computer games till midnight.’

b. Subject A'-extraction:

Siapa-kah yang ___ (**ber-**)main permainan komputer sampai larut malam?
 who-Q C MID-play game computer until midnight
 ‘Who played computer games till midnight?’

c. Object A'-extraction:

Apa-kah yang dia { ***ber**-main / main } ____ sampai larut malam?
 who-Q C 3sg BER-play play until midnight
 'What did s/he play till midnight?'

Hooi Ling Soh (p.c.) furthermore notes that the agent in such object extraction clauses can be in the high subject position (Spec,TP) for the Malay speakers that she has consulted. Notice that the third plural agent *mereka* in example (67b) precedes the auxiliaries *tidak dapat*. Example (67a) shows a parallel use of transitive *ber-buat* 'do' without object extraction.

(67) **Agent is high in object extraction with *ber*-deletion:**

(Hooi Ling Soh, p.c.)

a. Baseline with preverbal negation and modal:

Kami tidak dapat (**ber**-)buat apa-apa untuk men-olong penduduk di kawasan terbabit.
 1pl NEG MOD MID-do what-what to ACT-help resident in area involved
 'We were not able to do anything to help residents in the area involved.'

b. Object A'-extraction:

Apa-kah yang mereka tidak dapat { ***ber**-buat / buat } ____ untuk men-olong penduduk di
 what-Q C 3pl NEG MOD BER-do do to ACT-help resident in
 kawasan terbabit?
 area involved
 'What were they not able to do to help residents in the area involved?'

Such facts suggest the existence of an apparent "*ber*-deletion" effect, parallel to the "*meN*-deletion" pattern we have analyzed above. In particular, (67) shows us that two nominals move out of the VoiceP phase in object extraction across a canonically *ber*-prefixed verb, and that this is only possible when the middle prefix *ber*- is not present.

These facts fall out immediately from our proposal for Malayic clausal syntax and the derivation of object extraction clauses, above. We propose that *ber*- is a realization of the head Voice, like active *me*-, and furthermore has a free, null allomorph. If the overt allomorph *ber*- is inserted for Voice, movement of the agent to Spec,TP will trigger an ordering paradox, as summarized above. In contrast, if the null allomorph is inserted for Voice, both the internal argument in Spec,VoiceP and agent generated in Spec,vP can simultaneously move to Spec,CP and Spec,TP respectively, as these constituents are leftmost at VoiceP Spell-Out and move in an order-preserving fashion.

In addition to transitive verbs that bear *meN*- and *ber*- prefixes in active clauses, there is also a limited set of psych verbs such as *suka* 'like' that bear no prefix in their active use (see e.g. Sneddon 1996: 267–268). The object of these verbs can also be extracted across a high subject; see (68) below. Notice that the external argument *saya* precedes the future auxiliary, indicating that both the focused object (or a

corresponding relative operator; see section 4.5 below) and the external argument have moved out of VoiceP.

(68) **Object extraction from psych verb with high subject:**

Ini yang saya akan suka ____.

this C 1sg FUT like

‘This is the one that I will like.’

(SI; Stevens 1970: 71)

The possibility of object extraction from these prefixless psych verbs as in (68) is again predicted by and supports our analysis. The Voice head associated with these verbs is generally null, and therefore allows for the simultaneous movement of the object (first moved to Spec,VoiceP) and the subject (generated in Spec,vP) out of VoiceP in an order-preserving manner.

These facts from *ber*-prefixed verbs and prefixless psych verbs teach us that the possibility of object extraction is not a special quirk of verbs that normally bear *meN*-, but instead reflect a more general possibility of Malayic clause structure, made possible in configurations where Voice is null. Just as the possibility of a null realization of Voice makes object extraction with so-called “*meN*-deletion” possible, the null allomorph again allows for this object extraction across verbs prefixed by *ber*-. This is precisely what is predicted by our proposal and the Cyclic Linearization theory of phasehood.

4.3.2 Evidence from Madurese register variation

Additional evidence for our approach to the relation between bare passives and object extraction comes from Jeoung’s (2017) discussion of familiar vs polite register Madurese. Earlier work on Madurese had described the language as having exactly two voices, which are both morphologically marked: active verbs bear a homorganic nasal *N*- (or *a*-; see note 13 below) and passive verbs bear the prefix *e*-. These two voices neatly parallel the behavior of the active voice versus *di*-passive in the Malayic languages that we introduced in section 2.2 above. Jeoung however demonstrates that polite register Madurese additionally has a bare passive, unlike in the familiar register, hypothesizing that previous descriptions were based primarily on work on the familiar register only (p. 17). The following examples illustrate these voice possibilities with the stem ‘call,’ which is *tembhal* in the polite register and *kato* in the familiar register.

(69) **Three voices in polite Madurese:**

a. Active:

Ramah ampon n-embhal-ih potra-epon.
father ASP ACT-call-APPL SON-DEF
'Father called his son.'

b. e-passive:

Potra-epon ampon e-tembhal-ih
SON-DEF ASP PASS-call-APPL
sareng ramah.
by father
'The son was called by father.'

c. Bare passive:

Potra-epon ampon ramah tembhal-ih.
SON-DEF ASP father call-APPL
'The son was called by father.'

(Jeoung 2017: 17, 20)

(70) **Only two voices in familiar Madurese:**

a. Active:

Ali ng-ato-eh ana'-eng.
Ali ACT-call-APPL child-DEF
'Ali called his child.'

b. e-passive:

Ana'-eng e-kato-eh bi' Ali.
child-DEF PASS-call-APPL by Ali
'The child was called by Ali.'

c. Bare passive:

* Ana'-eng la engko' kato-eh.
child-DEF ASP 1sg call-APPL
Intended: 'The child was called by me.'

(*ibid.*: 16, 25)

Just as in the bare passive of Desa or SI/SM above, the agent in the polite register's bare passive must be immediately preverbal, following any auxiliaries:

(71) **Bare passive agent must be low in polite Madurese:**

Buku panekah { *ramah } ampon { ramah } bacah.
book that ASP father read
'Father already read that book.'

(*ibid.*: 22)

Jeoung also shows that the subjects of all of these clause types can be A'-extracted; see pp. 28–29.

In addition to the availability of the bare passive, Jeoung documents one other difference between the polite and familiar registers of Madurese: object extraction is possible in the polite register across a verb without its voice prefix (72) but not in the familiar register (73). Verbs that take an *a-* active prefix also allow for object extraction by dropping the *a-* prefix; see Jeoung 2015 ex. 24.

(72) **Object extraction in polite Madurese:**

Buku panekah se ramah ampon { *m-acah / bacah } ____.
book that C father ASP ACT-read read
'It's that book that father read.'

(*ibid.*: 29)

(73) **Attempted object extraction in familiar Madurese:**

* Buku jiyah se David la { m-acah / bacah } ____.
book that C David ASP ACT-read read
Intended: 'It's that book that David read.'

(*ibid.*: 29)

As Jeoung points out, in the grammatical object extraction example in (72), the agent *ramah* ‘father’ precedes the auxiliary *ampon*. This is unlike agents in the polite register’s bare passive, which must be immediately preverbal; see (71) above. Therefore the structure in (72) cannot be described as an instance of bare passive subject extraction. Parallel to object extraction clauses in SI/SM, then, the agent in (72) is in the high, canonical subject position (Spec,TP) as in an active clause, but the verb bears no voice prefix as in a bare passive, inviting a description parallel to that of “*meN*-deletion” for SI and SM. Jeoung therefore concludes (pp. 30–31) that there are two separate points of variation between the polite and familiar registers in the inventory of functional heads: in the terms of her analysis, the polite register has an extra bare passive Voice head, as well as a variant active Voice head that is unpronounced and allows for object extraction. In other words, there is no direct causal relationship between these two contrasts.

We argue instead that the differences in the grammars of polite versus familiar Madurese, introduced above, can all be attributed to just one difference in the morphological realization of Voice: polite Madurese has a null allomorph for Voice, but familiar Madurese does not. First, given the overall parallels in their behaviors (described in detail in Jeoung 2017), we adopt our proposal for the syntax of the four clause types in Malayic — the three basic clause types as well as object extraction — for Madurese. We repeat our schemata for the derivation of these clause types in (74) below, with minor adjustments for the shape of voice prefixes. We propose that all four of these clause types can in principle be derived in the syntax of both polite and familiar Madurese, but that the bare passive (74c) and object extraction clauses (74d) fail to result in licit surface forms in the familiar register.

(74) **Deriving four clause types in Madurese:** (based on (48, 57))

	[CP	[TP	...	[VoiceP	Voice	[_v P	v+V	
a. Active:		DP _{ag}	Aux*	<i>t</i>	<i>N-</i>	<i>t</i>	V	DP _{th}
		↑		↑		↑		
b. <i>E</i> -passive:		DP _{th}	Aux*	<i>t</i>	<i>e-</i>		V	<i>t</i>
		↑		↑				
c. Bare passive:		DP _{th}	Aux*	<i>t</i>		DP _{ag}	V	<i>t</i>
		↑		↑				
d. Object extraction:	DP _{A'}	DP _{ag}	Aux*	<i>t</i>		<i>t</i>	V	<i>t</i>
	↑	↑		↑		↑		

As reflected in (74) above, for Madurese, we treat both v_{ACT} and v_{PASS} as null. We propose that in polite Madurese, Voice realizes the overt active and passive prefixes when linearly adjacent to the heads v_{ACT} and v_{PASS} , respectively, and is null otherwise (75), just as we proposed for SI and SM above (38, 50). In contrast, we propose that in familiar Madurese, Voice realizes the overt active and passive prefixes when *structurally* adjacent to $v\text{P}$ headed by a particular flavor of v , as in (76) below.

- (75) **Vocabulary items in polite Madurese:**

 - a. Voice \leftrightarrow N^{-13} / ____ * v_{ACT}
 - b. Voice \leftrightarrow e^{-} / ____ * v_{PASS}
 - c. Voice \leftrightarrow \emptyset / elsewhere

(76) **Vocabulary items in familiar Madurese:**

 - a. Voice \leftrightarrow N^{-} / ____ $v_{\text{ACT}}^{\text{P}}$
 - b. Voice \leftrightarrow e^{-} / ____ $v_{\text{PASS}}^{\text{P}}$

Now consider how Voice will be realized when the VoiceP phase undergoes Spell-Out in each of the structures in (74) above. In the active and *e*-passive clauses, Voice will be linearly adjacent to *v* — because the agent has already moved out of the way in (74a) or none was generated in (74b) — as well as a sister to its *v*P projection, thereby allowing for Voice to realize its active or passive prefixes as in (75a,b, 76a,b). These prefixes then affix to *v*+V via Local Dislocation. Davies (2010: 256) and Jeoung (2017: 19, 33) note that these active and passive prefixes are obligatory in these clause types.

In the bare passive and object extraction clause types, the agent intervenes between Voice and v at the point of VoiceP Spell-Out. We propose that polite Madurese has an allomorph that can be realized in this circumstance, (75c), which furthermore is null and will therefore be pruned (Embick 2003, 2010). Unlike an overt Voice prefix, the null Voice allomorph does not require Voice to be linearly adjacent to $v+V$ in order to affix to it via Local Dislocation, allowing for the bare passive with its in-situ agent in (74c), nor will it introduce conflicting ordering statements when the agent moves across it in an object extraction clause (74d). In contrast, the vocabulary items for familiar Madurese do not rely on linear adjacency with v , and therefore will continue to realize their overt prefix forms. In the bare passive (74c), the overt prefix will fail to affix to the verb in $v+V$. In the object extraction clause (74d), the overt affix will introduce contradictory ordering statements with respect to the linear position of the agent. We therefore predict that the vocabulary items in (76) lead to the ungrammaticality of the bare passive and object extraction constructions in the familiar register, unlike in the polite register.

4.4 More on the movements in object extraction

Over the past two sections, we have emphasized that object extraction clauses involve the simultaneous movement of two nominals out of VoiceP, as schematized in (63), repeated here in (77).

- (77) **Moving two nominals out of VoiceP: =(63)**
- [_{CP} DP [_{TP} DP ... Aux* ... [_{VoiceP} ... (requiring no voice prefix)

Our proposal for such derivations makes very particular predictions about the conditions under which

¹³ Certain stems instead take the prefix *a-* instead of *N-*. See Davies 2010: 99–102, 250–255 for notes on their distribution. Verbs which take the *a-* active prefix also allow for object extraction with a null Voice allomorph in the polite register, just as in (72); see Jeoung 2015 ex. 24.

such a derivation would be grammatical, including that the Voice head must be unpronounced, as we discussed in the previous section. In this section, we discuss the choice of nominals that end up in Spec,CP and Spec,TP in such configurations, which provides further support for our proposal over other alternative approaches.

First, our proposal predicts that the configuration in (77) can only arise if the local external argument (generally an agent) moves to Spec,TP, and therefore the A'-extracted nominal in Spec,CP cannot itself be the local external argument. Concretely, this leads us to predict that the agent of a bare passive cannot be A'-extracted, as first noted by Chung (1976b: 85), thus explaining the ungrammaticality of structures such as (78).

(78) Ungrammatical bare passive agent A'-extraction:

* *Siapa_i yang pintu itu_j akan _____i buka _____j?*
 who C door that FUT open

Intended: 'Who will the door be opened by?' (SI; based on Vamarasi 1999: 55)

In order to move both *siapa* and *pintu itu* out of VoiceP as in (78), we would first move the theme *pintu itu* to Spec,VoiceP, establishing the relative order *pintu itu* < *siapa* at VoiceP Spell-Out. However, movement of *siapa* to Spec,CP and *pintu itu* to Spec,TP leads to the conflicting ordering *siapa* < *pintu itu* at CP Spell-Out. This explains the ungrammaticality of this structure.

The ungrammaticality of structures as in (78) serves as an argument against an alternative approach to “*meN*-deletion” effects. Suppose that we took the absence of overt Voice to indicate that there is no verbal phase boundary (either with the Voice head not projected or lacking its status as a phase head), predicting all nominal arguments to be accessible for movement. Such a theory would not predict the attested restriction on the order of moved nominal arguments, which is correctly predicted by our Cyclic Linearization account.

Next we discuss the choice of nominal that undergoes A'-movement to Spec,CP in (77). Although in most cases above we have presented examples that A'-move the local direct object, in fact a range of different nominals can be A'-extracted, leading to the configuration (77). For example, Sato (2012) shows that A'-extraction can target either argument of certain ditransitives as in (79) and Jeoung (2018b) shows that A'-extraction can target the possessors of objects as in (80). (See Jeoung 2018b for arguments that such examples involve A'-movement of the possessor, rather than another relation such as pronominal binding.) A'-extraction can also target the arguments of embedded clauses, as in (81–82) below. In all of these examples, verbs that are along the path of A'-movement cannot bear their voice prefix.

(79) **A'-extraction of ditransitive objects:**

a. *Apa* yang kamu { ***mem**-beli-kan / beli-kan } ibu-mu ____.
 what C you ACT-buy-APPL buy-APPL mother-your
 'What did you buy your mother?'

b. *Siapa* yang kamu { ***mem**-beli-kan / beli-kan } ____ bunga.
 what C you ACT-buy-APPL buy-APPL flower
 'Who did you buy flowers?'

(SI; Sato 2012: 43)

(80) **A'-extraction of object possessor:**

Siapa yang adik { ***mem**-baca / baca } [buku-nya ____]?
 who C younger.sibling ACT-read read book-D
 'Whose book is that little brother reading?'

(Colloquial Indonesian; Jeoung 2018b: 10)

(81) **A'-extraction of embedded subject:**

Apa-kah yang mereka { ***ber**-harap / harap } [CP ____ akan di-terima]?
 what-Q C 3pl MID-hope hope FUT PASS-accept
 'What do they hope will be accepted?'

(SM; Soh 1998: 305)

(82) **A'-extraction of embedded object:**

Siapa yang Bill { ***meng**-ira / kira } [CP Fred { ***men**-cintai / cintai } ____]?
 who that Bill ACT-think think Fred ACT-love love
 'Who_i does Bill think Fred loves?'

(SI; based on Saddy 1991: 187)

As previously noted by Aldridge (2008), Sato (2012), and Jeoung (2018b), such examples argue against any approach to non-subject extraction in SI/SM that specifically ties the absence of a voice prefix to the extraction of the direct object or theme, as in Cole and Hermon's (2005) case agreement account. The A'-extracted nominal may not even be an argument of the verb, as it may be a possessor (80), an embedded subject (81), or embedded object (82). By the same token, what we have called "object extraction" clauses above, then, may more accurately be described as the general structure for the A'-extraction of any nominal that is not the local external argument from within VoiceP.

In summary, our proposal correctly predicts that object extraction clauses as schematized in (77) above allow for any non-subject to land in Spec,CP, with the local external argument in Spec,TP. Under our Cyclic Linearization account, the only way that multiple nominals can move out of the VoiceP phase is if they are a non-subject and the local external argument, in that linear order, with no overt realization of Voice.

4.5 On null operators and Cyclic Linearization

Finally, we discuss an important detail regarding our proposal and our treatment of A'-constructions in these languages. An important component of our proposal is the Cyclic Linearization theory of phase

impenetrability effects (Fox and Pesetsky 2005 et seq), whereby the relative order of constituents are determined after the construction of each phase. Certain movements out of a phase are then illicit because their linear placement as determined within the lower phase and in a higher phase leads to a contradiction. We furthermore proposed that null terminals are pruned and are therefore ignored for purposes of linearization as in (56–57), unlike overt terminals as in (65), explaining the so-called “*meN*-deletion” effect.

An important question that arises is whether null phrases such as null operators also do not undergo linearization, in which case Cyclic Linearization theory would predict their movement to not exhibit phase impenetrability effects. Davis (2020b: 339–343) explicitly argues that null operators undergo linearization just as overt constituents do, as they are subject to the same locality constraints on movement in English that Davis argues are best explained by Cyclic Linearization.

While Davis’s claim is motivated by the behavior of English relative clauses with and without overt relative pronouns, Malayic languages also provide evidence for this view. Nomoto and Matsuura (2023) discuss the distribution and nature of null arguments in Standard Malay. They argue that null pronouns (pro-drop) are only possible in subject position, with apparent null objects instead necessarily being linked to null topics that undergo topicalization to the clause periphery. As evidence for this account, Nomoto and Matsuura observe that transitive verbs with apparent null objects cannot bear their voice prefix, as in (83).

(83) **Apparent object drop requires prefixless transitive verb:**

Nadiah men-ulis surat kepada Siti dan Siti sudah { ***men**-erima / terima }.

Nadiah ACT-write letter to Siti and Siti ASP ACT-receive receive

‘Nadiah wrote a letter to Siti and Siti has already received it.’

(SM; Nomoto and Matsuura 2023)

Concretely, Nomoto and Matsuura propose that a null operator that we notate DP_{\emptyset} is first generated as the object and then moves to the clause periphery, where it receives a topic-linked interpretation, as has been proposed previously for Mandarin Chinese and some other languages (Huang 1984, 1991).

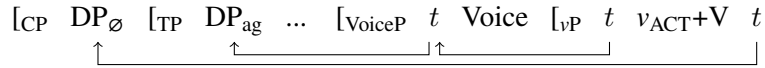
In (84) below, we illustrate two variants for the derivation of this second clause in (83). Both follow the proposal in Nomoto and Matsuura 2023 in that the null operator DP_{\emptyset} moves to a clause-peripheral position in order to link the interpretation of the object to the discourse topic. The two derivations however differ in whether the null operator moves successive-cyclicly through the VoiceP phase edge or not.

(84) **Two derivations for null object topicalization as in (83):**

- a. Null operator moves successive-cyclicly; Voice must be null:



- b. Null operator moves in one-fell-swoop; Voice can be pronounced:



In (84a), the null operator becomes the unique nominal specifier of VoiceP and then moves to Spec,CP; this requires Voice to be unpronounced, pruned, and not linearized, so that the agent can move directly from Spec,vP to Spec,TP. In contrast, in (84b), the null operator does not pass through the edge of VoiceP. This allows the agent to move through Spec,VoiceP instead, predicting that Voice and v_{ACT} may be realized together as *meN*-.

If null operators were like null Voice in being ignored for the determination of linearization statements, we would predict the derivation in (84b) with one-fell-swoop movement of the null operator to be grammatical. This would predict the availability of *meN*-marking in the second clause of (83) above, contrary to fact. We therefore conclude that null terminals and null phrases behave differently for the purposes of Cyclic Linearization. More precisely, terminal nodes that are realized by a null allomorph or are otherwise unpronounced will be pruned, as has been independently proposed (Embick 2003, 2010), and therefore do not get linearized during phasal Spell-Out. In contrast, phrases that happen to contain no pronounced material will still themselves be linearized.

This proposal also serves to bring our overall analysis for Malayic voice and extraction in line with existing proposals for nominal *wh*- and focus-fronting constructions in these languages as biclausal pseudocleft structures (Kader 1976; Cole, Hermon, and Aman 1999a; Cole, Hermon, and Tjung 2005; Kroeger 2009; see also Potsdam 2009). According to this view, *wh*-initial questions as in (85a) are copular clauses where the *wh*-phrase is a predicate nominal and the clause introduced by the complementizer *yang* is a headless relative clause. The same account extends to apparent nominal focus-fronting or cleft constructions as well.

(85) **The pseudocleft analysis for *wh*-initial questions:**

[_{DP} Apa] [_{DP} [_{RC} yang Ali beli ____]]?
 what C_{REL} Ali buy

‘What did Ali buy?’

(SI; Cole et al. 2005: 564)

Assuming that headless relatives such as *yang Ali beli* in (85) are derived by the movement of a null operator to the edge of the relative clause, our proposal above that null operators are subject to linearization

during phasal Spell-Out (also following Davis 2020b) becomes essential for explaining the interaction of voice and A'-extraction in these pseudocleft structures.

5 Conclusion

Since at least the 1970s (see e.g. Keenan 1972, 1976a,b, Chung 1976a,b, Schachter 1976), western Austronesian languages have featured prominently in discussions of the theory of subjecthood and voice, and their interactions with A'-movement. Many western Austronesian languages appear to exhibit a subject-only restriction on A'-extraction (Keenan and Comrie 1977 et seq), including the most well studied Malayic languages of Standard Indonesian (SI) and Standard Malay (SM): A'-extraction can only target the subject, as determined by voice morphology on the verb and reflected by its clause-initial position in basic word order, without changes in morphology. However, as first noted in Keenan 1972 and Chung 1976a and elaborated upon in works such as Saddy 1991, Soh 1998, and Cole and Hermon 2005, SI and SM *do* allow for the extraction of non-subject nominals if the verb appears exceptionally without its *meN*- active voice prefix.

In this paper, we developed a new proposal for the clausal morphosyntax of Malayic languages, which offers a new and explanatory account for the observed interactions between voice morphology and nominal A'-extraction. Concretely, our proposal and discussion differs from prior theoretical work in this area in at least two ways. First, we argue for an organization for the verbal phase in Malayic languages that splits two functions traditionally associated with a single functional head (as in Chomsky 2001) — namely, serving as the phase head and introducing the external argument — across two functional heads, as previously proposed for other languages in works such as Gallego 2008, Richards 2010, Coon et al. 2014, and Hsieh to appear. This syntactic decomposition is motivated by the interaction of voice morphology and extraction in Suak Mansi Desa, as well as previous suggestions for their morphological decomposition by Gil (2002) and Benjamin (2009). We call these heads Voice and *v* and associate them respectively with the realization of *me*- and *N*- in active verb forms, motivated by the facts summarized above. Overt Voice allomorphs are prefixes that lower onto the verb in *v*.

Second, we highlight the important role that the external argument (e.g. agent) plays in the behavior of object extraction clauses. When another nominal moves out of VoiceP via movement to Spec,VoiceP, one of two things occur with the external argument. The first possibility is that it moves to the high subject position in Spec,TP, to proceed any auxiliaries (86a); adopting Fox and Pesetsky's (2005) Cyclic Linearization theory of phase impenetrability effects, this is possible only if Voice is unpronounced, making DP_{A'} and DP_{ag} the two leftmost parts of the VoiceP phase. The second possibility is that the external argument stays in-situ in Spec,vP, as in Desa object extraction (86b). If Voice were then realized as an overt prefix, the external argument would block its lowering onto the verb under linear adjacency

with v , and so Voice must be unpronounced in this configuration as well. In addition, the in-situ position of the external argument in bare passives also explains its obligatory lack of voice prefixes (86c), thereby offering a new understanding of the relationship between bare passives and object extraction clauses.

(86) **The external argument requires Voice to be unpronounced:**

	[CP	[TP	...	[VoiceP	Voice	[_v P	$v+V$
a. SI/SM-type object extr.:	DP _{A'}	DP _{ag}	Aux*	t	\emptyset	t	$\emptyset-V$ t
	↑	↑		↑		↑	↑
b. Desa object extraction:	DP _{A'}		Aux*	t	\emptyset	DP _{ag}	$N-V$ t
	↑			↑		↑	↑
c. Bare passive:		DP _{th}	Aux*	t	\emptyset	DP _{ag}	$\emptyset-V$ t
		↑		↑		↑	↑

Along the way, we have also shown that the theory here can productively explain voice and extraction interactions in various other non-Malayic languages of the region with similar, so-called “Indonesian-type voice systems” (see e.g. Wolff 1996; Ross 2002).

Our novel proposal for the clausal syntax of Malayic languages thus provides a new, explanatory account for the absence of voice prefixes in non-subject nominal A'-extraction constructions. Whether the external argument moves up to the canonical subject position as in SI/SM (86a) or stays in-situ (86b), the derivation will only be grammatical if Voice is realized as a null allomorph, pruned from the representation and not subject to lowering or linearization. Whereas all prior analyses for this “*meN*-deletion” effect have effectively stipulated that extraction of a non-subject nominal correlates with the non-pronunciation of the voice prefix, our proposal explains why this must be so. Our proposal thereby highlights the important role that overt morphosyntax and linearization may play in explaining restrictions on movement, in the spirit of Fox and Pesetsky’s (2005) Cyclic Linearization theory.

Finally, we note that our paper also stands apart from many prior works on the syntax of SI and SM in that we consider the broader range of attested voice and extraction interactions in regional Malayic languages and their varieties. In particular, we highlighted the behavior of Suak Mansi Desa, a previously undescribed Malayic language of West Kalimantan, Borneo, as particularly informative. While the morphosyntax of Desa at first glance appears quite similar to that of the standard languages, in particular syntactic configurations, their behaviors come apart. The consideration of such details in the grammars of closely related languages directly motivated our proposal for the grammars of Malayic languages, including our new approach to the previously well-studied phenomenon of “*meN*-deletion” in SI and SM. This demonstrates the value of syntactic theory-building that is informed by a broader typological and comparative lens, including original empirical work on previously undescribed or marginalized varieties.

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