The morphosyntax of verbal agreement in Uab Meto

by

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Abstract

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This dissertation describes and analyzes the morphology and syntax of verbal agreement in Uab Meto, an Austronesian language of Indonesia and Timor-Leste. The introduction provides background on Uab Meto, its speakers, and previous work on the language. Then the dissertation presents analyses of several aspects of Uab Meto grammar. The second chapter analyzes the syntactic structure of Uab Meto verbs and the morphology and allomorphy of elements within it, except agreement. The third chapter analyzes the allomorphy displayed by the language's verbal agreement prefixes. The fourth chapter analyzes the syntax of these agreement prefixes in a broader clausal context. Finally, the conclusion summarizes the main findings from these analyses and suggests directions for future work.

These analyses yield several interesting findings. Firstly, the allomorphy of the verbal agreement prefixes demonstrates conditioning by non-linearly adjacent morphemes, grammatical conditioning from lower morphemes, and conditioning by multi-morpheme constituents. These types of conditioning occur when the relevant morpheme or constituent of morphemes is structurally adjacent to the agreement prefix. The dissertation proposes a modified Obliteration operation to create structural adjacency when intervening morphemes are null. Secondly, the syntax of verbal agreement demonstrates that agreement can be nominative-aligned (i.e. prefer to target subjects) but sit in a low position below tense-aspect-mood markers and negation. This dissertation places this agreement on an independent Agr head immediately above Voice. Nominative case is still assigned by T, and this divorcing of case and agreement leads to several differences in agreement behavior from "high nominative" languages like English that link case and agreement to the same head. Ultimately, all of these findings illustrate the benefits of working with speakers of understudied languages. This research increases the documentation of Uab Meto, and it provides novel data that expand our understanding of what is possible in language.

To my parents, grandparents, and sisters

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Glossing abbreviations

1 = 1st person
2 = 2nd person
3 = 3rd person
A = A-set (ERG) agreement
ABS = absolutive case
ACC = accusative case
ALLAT = allative case
AP = antipassive
APPL = applicative
ASSOC = associative
AV = active voice
B = B-set (ABS) agreement
CAUS = causative
CL = classifier
COND = conditional mood
CONS = consequential
CTMP = contemporative mood
DAT = dative
DECL = declarative
DEF = definite
DEM = demonstrative
DEOB = deobjective
DET = determiner
DIST = distal
EMPH = emphatic
EPEN = epenthetic
ERG = ergative case
EVID = evidential
EXC = exclusive
FAM = familiar
FEM = feminine
FILL = filler
FOC = focus
FUT = future
GEN = genitive case
HON = honorific
II = noun class 2
III = noun class 3
IMP = imperative
IMPF = imperfect aspect
INAL = inalienable
INC = inclusive
INCP = inceptive aspect
IND = indicative mood
INF = infinitive
INS = intensifier
INT = interrogative mood
IPFV = imperfective aspect
IRR = irrealis
ITER = iterative
ITV = intransitive verb
KIN = kinship
LOC = locative
MASC = masculine
MOD = modalis case
NEG = negative
NMLZ = nominalizer
NOM = nominative case
OBJ = object
OBV = obviative
PAST = past tense
PERF = perfect aspect
PFV = perfective aspect
PL = plural
POL = polite
PRES = present tense
PROG = progressive aspect
PRON = pronoun
PROX = proximate
PRT = particle
Q = question
REC = recent
RECP = reciprocal
RED = reduplicant
REL = relativizer
RLS = realis
RN = relational noun
SET = setting
SG = singular
SJV = subjunctive mood
STAT = stative
SUB = subject
TR = transitional
TV = transitive verb
??? = unknown meaning

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Chapter 1

Introduction and language background

1.1 Purpose of the dissertation and summary of contributions

This dissertation is about verbs in Uab Meto (ISO code: aoz), an Austronesian language spoken on the island of Timor in Indonesia and Timor-Leste. It focuses especially on the Miomafo variety of the language. I have decided to focus this dissertation on Uab Meto verbs, and especially verbal agreement, for two reasons: the language is understudied, and the language's verbal agreement has some properties that are typologically unusual, both in the context of Austronesian languages and of languages in general. Thus, writing about this topic simultaneously accomplishes the goals of providing additional documentation and description of Uab Meto and of providing a detailed analysis of one fascinating area of the language that can inform broader linguistic theory.

Within this broad topic of verbs in Uab Meto, there are a few specific areas that are the focus of this dissertation. Chapter 2 examines the morphosyntactic structure of Uab Meto verbs. There are at least four overt morpheme slots in the verb, which can be described templatically as Agr-Voice-Root-Caus. A maximal example is provided in (1a), which consists of a 1st-person-plural-inclusive agreement prefix *t-*, the "deobjective" voice prefix *ma-*, the root *toko* 'sit', and the causative suffix *-b*. A minimal verbal example is shown in (1b), consisting of just the 3rd-person agreement prefix *n-* and the same verb root, this time taking the form *took*. Finally, (1c) shows the same verb root with 3rd-person agreement and a causative suffix, with no voice prefix. This dissertation does not spend much time on the *toko*/*took* alternation and related ones, which are part of Uab Meto's process of productive synchronic metathesis described in section 1.5.2, but it does focus on the other aspects of Uab Meto verbal morphology highlighted in these examples. First, these examples show that Uab Meto has verbal agreement dependent on the ϕ-features of the subject. Second, they show that the language has a voice alternation such that at least one voice is marked overtly. Third, they show that the causative suffix transitivizes normally intransitive verbs, but certain voice markers like *ma-* can affect this transitivization. Fourth, they show that agreement for the same subject can manifest in more than one way. The 3rd-person prefix is *n-* in (1b) and *na-* in (1c).

(1) a. Hita **t-ma-toko-b**.
1PL.INC.NOM 1PL.INC-DEOB-sit-CAUS
'We seat each other.'
(YEK/NSK; elic. Dec. 8, 2021)

b. Ina **n-took**.
3SG.NOM 3-sit
'He/she sits.'
(YEK/NSK; elic. Oct. 27, 2021)

c. Iin **na-toko-b** kau.
3SG.NOM 3-sit-CAUS 1SG.ACC
'He/she seated me.'
(YEK/NSK; elic. Oct. 27, 2021)

Chapter 2 analyzes these examples and many others in an effort to understand the morphology and syntax of the full set of Uab Meto verbal affixes. (1) shows the affixes with overt manifestations, but a careful examination of all the data reveal additional affixes. For example, monotransitive verbs (2a) usually become ditransitive when causativized (2b), and this additional DP must be introduced somewhere. Incorporating the observation that these causatives are "verb-selecting" in the terminology of Pylkkänen (2008: 87) and thus select for a vP and only have one agent, this provides evidence for an applicative head, as well as a vP.

(2) a. Au **'-éók** bolo.
1SG.NOM 1SG-eat cake
'I eat cake.'
(YEK/NSK; elic. Jul. 14, 2021)

b. Au **'u-'-éku-t** koo bolo.
1SG.NOM 1SG-EPEN-eat-CAUS 2SG.ACC cake
'I feed you cake.'
(YEK/NSK; elic. Jul. 14, 2021)

There are also verb-noun pairs like the one in (3). The noun *menas* 'sickness' in (3a) has a final [s] that is lost from the corresponding verb *mena/meen*. In fact a fairly large set of C-final nouns lose this final consonant when used as verbs. The verb in (3b) has an interpretation such that the subject HAS the noun described by the verb. As will be discussed in more detail, this suggests that some verbs in Uab Meto begin their life as nouns before being verbalized (Tan 2023: 181-187). This process of converting nouns into verbs often involves deletion of the final consonant. Chapter 2 proposes a unique syntax and process of subtractive morphology associated with this verbalization to capture these observations. This dissertation is written within the framework of Distributed Morphology (Halle & Marantz 1993) and thus assumes that syntax extends into words and that morphologically complex words can be decomposed into individual syntactic constituents that combine hierarchically. Chapter 2 motivates the existence of all the various heads in the verbal complex and proposes an analysis of their morphology and syntax.

(3) a. **menas**
sickness
'sickness'
(LTK; AOZ2019-MON011, line 105)

b. Au **'u-meen**.
1SG.NOM 1SG-sickness
'I am sick.'
(YEK; elic. Dec. 15, 2021)

Chapter 3 takes the verbal structure proposed in chapter 2 and uses it to analyze an alternation exhibited by the pairs of examples in (1b-c) and (2), the alternation between asyllabic (C-) agreement prefixes and syllabic (CV-) agreement prefixes. Causative marking, which I notate as $v_{[+CAUS]}$, is

one of the primary conditioning factors for CV- prefixes. This factor is grammatical in nature, rather than phonological, as it occurs regardless of the form of $v_{[+CAUS]}$, including when it is null, as in (4b). What is additionally notable about this allomorphy is that even when $v_{[+CAUS]}$ is overt, it is never linearly adjacent to the agreement prefix. The root always intervenes. The lack of a phonological factor suggests that this is allomorphic conditioning, but this conditioning poses a problem for various theories of allomorphy, including theories that propose a strict condition of linear adjacency (Embick 2010, 2015) as well as theories that only allow phonological conditioning from lower morphemes (Bobaljik 2000).

(4) a. Faat=be **n-móóf**.
stone=DEF 3-fall
'The stone fell.'
(YEK; elic. Oct. 6, 2021)

b. **Na-móóf-∅** fatu.
3-fall-CAUS stone
'He/she/someone dropped a stone.'
(YEK; elic. Oct. 6, 2021)

Adding further complication, various other factors can block the conditioning of CV- agreement by $v_{[+CAUS]}$. As seen in (1a), deobjective *ma-* blocks CV- agreement. So some morphemes that intervene linearly serve to block allomorphy, but others do not. Furthermore, other stems of 3+ syllables also block CV- agreement (5), including when none of the morphemes are 3+ syllables on their own (5a).

(5) a. **n-'oe-meta-b**
3-water-black-CAUS
'make dirty' (Tan 2023: 328)

b. Au **'-kumani-b** koo.
1SG.NOM 1SG-smile-CAUS 2SG.ACC
'I make you smile.' (YEK; elic. Jan. 24, 2024)

Examples like (3b) are difficult to account for. These take CV- Agr despite not being causativized and not having a clear phonological conditioning factor, like the stem being CC-initial. Following Tan (2023), I attribute these to the presence of a denominal verb combining with a special v head, $v_{[+HAVE]}$, which also conditions CV- Agr.

All of this suggests that structure plays a role in this allomorphy. Chapter 3 argues that these patterns can be accounted for by positing a condition of *structural* adjacency for allomorphy, rather than linear adjacency. Structural adjacency can be based on the structure of the verb as it is originally generated, or it can be created via a modified form of Obliteration (Arregi & Nevins 2007, 2012), an operation that can eliminate null morphemes from the structure. The exact formulation of this operation will be discussed in that chapter. This account relies on Vocabulary Insertion not overwriting grammatical information, suggesting it is an operation that purely adds information (Harizanov & Gribanova 2014). Also necessary is the idea that if a morpheme is structurally adjacent to agreement, factors that characterize the whole stem that it heads, like the number of syllables, can factor in. Again, this requires reference to structure. Finally, these examples raise the question of how to resolve competing conditioning factors. It would appear that when there is a conflict, phonology wins over morphology (P » M, McCarthy & Prince 1993). Ultimately, this allomorphy allows one to adjudicate between various theories of allomorphic conditioning.

Chapter 4 expands the domain of analysis to the broader Uab Meto clause. While the chapters before it focus on the structure of verbs and allomorphy displayed by affixes within it, chapter 4

examines the syntax of agreement in relation to higher clausal elements like negation (6a) and tense-aspect-mood (TAM) markers (6b-d). Chapter 2 demonstrates that agreement, analyzed as being instantiated by an independent Agr head (Hsieh 2020; Pollock 1989; Yuan 2021), is the highest element in the verbal complex. It sits immediately above Voice, which introduces external arguments, through evidence like agreement always targeting the highest argument, regardless of where it is generated, and the observation that it is possible to nominalize verbs in such a way that all heads except agreement are included. Chapter 4 provides some more evidence along these lines for what agreement is *above*, and it adds novel arguments showing that agreement is *below* negation and TAM markers. Unlike in English (7), these elements do not agree and they do not prevent verbs from agreeing. In addition, some of these elements can license ellipsis of VPs containing the verb and its complement (8), showing both that these elements are in the clausal spine (i.e. they are not adjuncts), and they are above Agr, under the assumption that heads license ellipsis of their complements (Merchant 2008, 2013). This conclusion is unexpected, given that nominative-aligned agreement is typically located on a high functional head like T (Coon 2017b; Legate 2014; Woolford 2010).

(6) a. Hai **ka=** m-lóóm=je **=fa**.
1PL.EXC.NOM NEG= 1PL.EXC-like=3SG.ACC =NEG
'We don't like him/her.' (YEK; AOZ2019-WORDLIST001, lines 271-272)

b. Atóin'=ini ok∼oke' **lof** na-tika=n *bool*.
man=PL.DEF all.RED∼all FUT 3-heel=PL ball
'All the boys will play soccer.' (YEK; AOZ2019-WORDLIST001, line 277)

c. N-aka=m a hoo ***bisa*** m-éék *oto*? Au ***bisa*** '-éék *oto*.
3-say=and Q 2SG.NOM can 2SG-bring car 1SG.NOM can 1SG-bring car
'He said, "Can you drive a car?" (I replied) "I can drive a car."'
(LTK; AOZ2019-MON011, line 188)

d. Hai **he** m-nao **he** m-méóp m-óé Bokin nae.
1PL.EXC.NOM IRR 1PL.EXC-go IRR 1PL.EXC-work 1PL.EXC-to Boking DEM.DIST
'We wanted to go work in Boking there.' (LTK; AOZ2019-MON011, line 218)

(7) a. He does not like(*-s) me.

b. He {will/can/must} play(*-s) soccer.

(8) a. Iin ***bisa*** na-hana 'maka' ka?
3SG.NOM can 3-cook rice NEG
'Can he cook rice?'
Iin ***bisa*** (na-haan).
3SG.NOM can (3-cook)
'He can (cook).'
(YEK/NSK; elic. Oct. 6, 2021)

b. Hoo m-soos sisi ka?
2SG.NOM 2SG-buy meat NEG
'Did you buy meat?'
Au **ka=** ('-soos) **=fa**.
1SG.NOM NEG= (1SG-buy) =NEG
'I did not (buy any).'
(YEK; elic. Nov. 3, 2021)

Furthermore, the location of the subject to the left of negation and TAM markers, as well as cases of non-initial verbs agreeing with accusative-marked DPs (9), suggest that agreement is independent

of case assignment (Hsieh 2020; Pesetsky & Torrego 2007). I propose that T attracts the highest DP and assigns it nominative case, while Agr agrees with the highest argument in the domain of its own verbal complex. The fact that verbs in the same clause can agree with different DPs further shows that each verb has its own independent ϕ-probe.

(9) a. Hoo **mu-poi-n** kau **'u-'koo** ume.
2SG.NOM 2SG-exit-CAUS 1SG.ACC 1SG-from house
'You got me out of the house.' (YEK; elic. Feb. 23, 2022)

b. Hiit mama **n-éék** kiit **t-óé** uim menas.
1PL.INC.NOM mom 3-bring 1PL.INC.ACC 1PL.INC-to house sickness
'Our mother brought us to the hospital.' (YEK; elic. Jul. 20, 2021)

Chapter 4 finishes with a comparison of the properties of agreement in Uab Meto to various other languages, establishing that 1. Uab Meto has true agreement, rather than any form of clitic doubling, 2. its agreement is nominative aligned in not displaying any asymmetries in how it marks agreement based on the origin of the DP it targets, unlike many languages with low agreement, and 3. its agreement is divorced from case. Ultimately, chapter 4 aims to make a typological contribution to our understanding of the ways that verbal agreement can vary. In consistently targeting the highest DP in the verb's domain, Uab Meto agreement is nominative aligned. In treating all subjects the same way, its case marking is also nominative aligned. However, Uab Meto suggests that nominative-aligned agreement can be located anywhere in the clause as long as it is above the Merge site of external arguments. Uab Meto is the first example to my knowledge of a "low nominative" agreement language. Just as absolutive agreement can have high and low variants (Coon, Baier & Levin 2021), so can nominative agreement.

This introduction provides the first step towards analyzing the phenomena described above. It does so in the following way. **Section 1.2** provides general background on Uab Meto and its speakers, and **section 1.3** discusses the data sources and previous work on Uab Meto referenced in this dissertation, including my own fieldwork. These sections collectively demonstrate the understudied nature of the language, though with recent improvement. Then the introduction moves onto the theoretical assumptions of this dissertation and descriptive essentials that allow one to understand the data. **Section 1.4** discusses the theoretical framework in which this dissertation is written, largely a combination of Minimalism (Chomsky 2000, 2001) and Distributed Morphology (Halle & Marantz 1993). Then **section 1.5** presents the orthography used in this dissertation and how it interacts with pervasive phonological processes in the language like metathesis, and **section 1.6** provides paradigms for and illustrates the use of the elements that are most important to this dissertation, the language's pronouns and verbal subject-agreement prefixes. This latter section also features a proposal of how verb are assembled via head movement, based on the theoretical assumption of Distributed Morphology presented in 1.4 that the root and any verbal affixes all instantiate separate syntactic heads. These sections aim both to demonstrate many of the descriptive essentials of Uab Meto and also some of the typologically interesting aspects of the language that will be revisited in the main body of this work. Finally, **section 1.7** lays out the structure of the rest of the dissertation.

1.2 Background on Uab Meto

(Uab) Meto (/uabaʔ mɛtɔʔ/ = [ʔwab mɛtɔʔ]), also known as (bahasa) Dawan, Dawanese, bahasa Timor, Timorese, or Atoni, is a Timor-Babar language in the Central-Eastern Malayo-Polynesian branch of the Malayo-Polynesian languages, within Austronesian language family (Lewis, Simons & Fennig 2015: 123). Many of these names are exonyms. The first endonym, *(Uab) Meto*, consists of the words *uab* 'speech' and *meto'* 'dry', referring to the fact that Timor has a dry climate compared to many other islands in the Indonesian archipelago. The other endonym, *Atoni'* [atoniʔ], is the word for 'person' or 'man'. Impressionistically, *(Uab) Meto* is the name most commonly used by speakers of the language amongst themselves, while the exonym *Dawan* is more familiar to outsiders, and thus speakers of the language often use it when communicating with outsiders. I generally avoid using the name *Dawan* because some speakers consider it pejorative. Uab Meto lacks /d/ in native words, and the term is often thought to be from a neighboring language's word for 'enemy' (Grimes, Bani & Caet 2012).

As shown in Figure 1.1, Uab Meto is spoken in most of the western third of the island of Timor in Indonesia and the Timor-Leste exclave of Oecussi. It is labeled the "Meto cluster" (Edwards 2020: 5) for reasons that will become clear below. It has roughly 800,000 speakers (Lewis, Simons & Fennig 2015: 14, 123), though there is growing language shift to Indonesian, especially among younger people who study, work, and interact with non-Meto people in Indonesian.

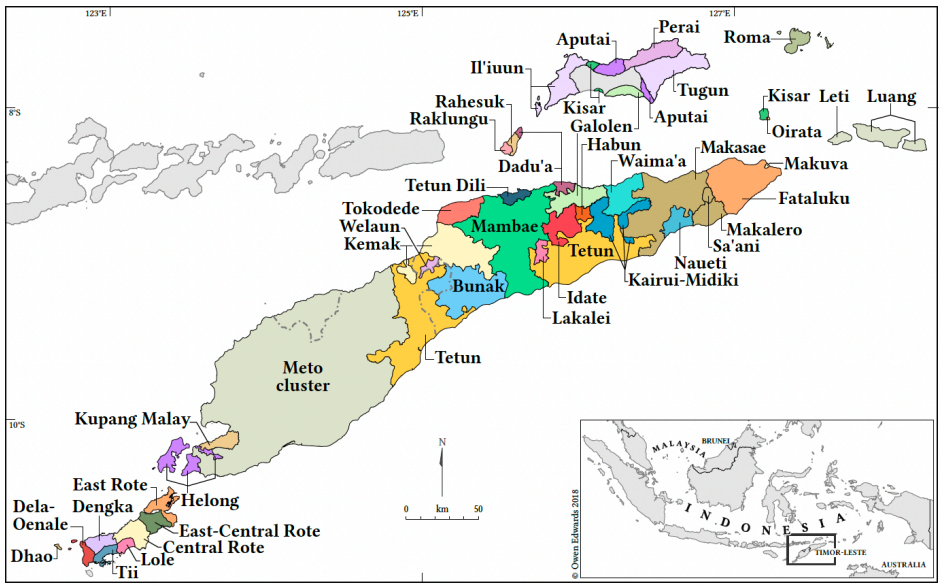


Figure 1.1: Languages of the Timor area (from Edwards 2020: 5)

Edwards (2020: 5-6) notes that speakers generally consider Uab Meto to be a single language, but the term "Meto cluster" is meant to capture the fact that there are many varieties of Uab Meto, as shown in Figure 1.2. These varieties are identified and named by Uab Meto speakers themselves,

and the boundaries of these areas closely correspond to the borders between the pre-colonial kingdoms of western Timor. There is additional variation between villages within named areas. From a linguistic standpoint, Uab Meto is a dialect continuum of closely related language varieties, a situation akin to that of the modern German varieties. The Kotos and Ro'is Amarasi varieties have been given their own ISO code (aaz, rather than aoz), but I do not see any particular reason to separate these as particularly distinct. In fact, based on sound changes, vocabulary, and morphology, Kotos Amarasi appears to be more closely related to other Uab Meto varieties than to Ro'is Amarasi (Edwards 2020: 8, Edwards 2021: 34, Tan 2023: 7). Though there are clear differences between the varieties of Uab Meto, the full extent of the variation and even the question of whether these varieties are the best way to understand variation in the language remain unknown.

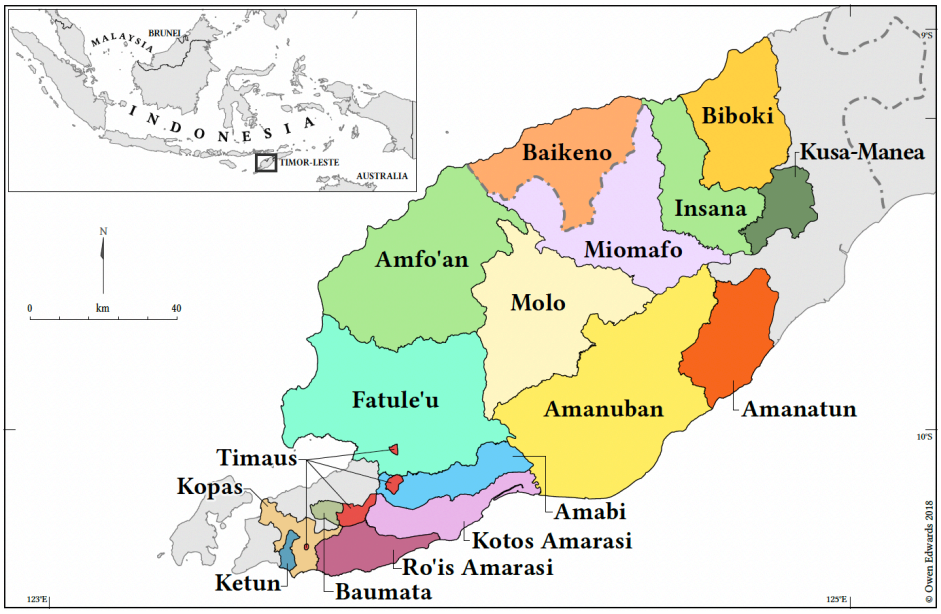


Figure 1.2: Self-identified varieties of Uab Meto (from Edwards 2020: 6)

As discussed in more detail in section 1.3.1, I have worked with speakers of the Miomafo, Amanuban, Sonba'i[1], and Ro'is Amarasi varieties, and I have observed some variation in phonology, especially in morphophonology, as well as some variation in the forms of functional morphemes and lexical items. I have observed relatively little variation in the *inventory* of functional morphemes and their uses and in syntax in general. Importantly for this dissertation, I have not observed any significant differences in allomorphic conditioning between different allomorphs of particular functional morphemes in verbs. There are many cases where speakers of these varieties will translate something in exactly the same way, and there are also plenty of cases

[1]Sonba'i is not shown on the map, but the speaker describes it as similar to Molo, and Tan (2023: 349) describes it as similar to Kopas.

where they do not, but the differences clearly reflect distinct forms of a cognate. There are also cases where the differences in phonology, the forms of functors, and especially vocabulary impede communication. Because of this, Edwards (2020: 6) and I have both observed that speakers of different varieties often communicate with each other using a combination of their variety of Uab Meto, standard Indonesian, and Kupang Malay (the local vernacular variety of Indonesian). Section 1.3.2 discusses how I handle variation between the Uab Meto varieties in this dissertation.

1.3 Data sources and previous work on Uab Meto

1.3.1 Fieldwork on Uab Meto

Most of the data in this dissertation come from primary fieldwork, so here I will describe the circumstances under which the data were collected, the types of data collected, and the speakers who shared their language with me. I began fieldwork on Uab Meto in 2019. In June of that year I traveled to Indonesia to participate in a program for training in linguistic fieldwork and language documentation. This program was directed by Peter Cole and Gabriella Hermon of the University of Delaware, with significant contributions by Yanti of Atma Jaya Catholic University of Indonesia, Jermy Balukh of Cakrawala Nusantara Kupang, and Asako Shiohara of Tokyo University of Foreign Studies. The program was funded through a grant to the Univrsity of Delaware from the Documenting Endangered Languages (DEL) program of the National Science Foundation (NSF) (award BCS – 1747801, grant title "Collaborative Approach to the Documentation of Endangered Languages in Linguistically Diverse Locales"). That year the program took four early-stage doctoral students in the US, namely me, Jahnavi Narkar of UCLA, Tamisha Tan of Harvard (at the time), and Grace Wivell of Stony Brook. We first went to Jakarta for several days of intensive instruction in the Indonesian language. Then we flew to Kupang, the largest city on the island of Timor, for about a week of training in fieldwork. At this point we each met our two teammates. My teammates were Yoakim Kenjam and Nona Seko, who are respectively native speakers of the Miomafo and Amanuban varieties of Uab Meto. They were both undergraduate students of Jermy Balukh at the time and speak English well, which was very helpful at a time when my Indonesian was still minimal. We worked together in Kupang to collect a wordlist and some basic sentences, determine the sound inventory of the Miomafo variety of the language, and develop an orthography. We also used this time to make sure that everyone was comfortable with all of the software (FLEx, Elan, Audacity) and equipment (Zoom H1 recorder, tripod, personal phones) that we were using. We then traveled to Yoakim's home village of Oelneke, which is located in the Miomafo area about a 6-hour drive from Kupang. We spent about three weeks in July 2019 recording speakers in Oelneke. Most recordings were naturalistic narratives are about a variety of topics including personal narratives, folk tales, historical accounts, and farming and weaving techniques, among others. There were also some naturalistic conversations with similar themes. Lastly, we twice used *The jackal and crow picture task* (Carroll, Kelly & Gawne 2011) for speakers who wanted a more structured task from us. All of this resulted in 29 recordings, of which 23 are monologues, 3 are conversations, 2 involve the instrumental stimulus discussed above, and 1 is a word and sentence list, for a total

of about 9 hours of audio and 1 hour of video. Yoakim and Nona provided initial transcriptions and translations, and I performed initial glossing. Roughly 1.5 hours of these recordings have been transcribed and glossed, and perhaps another 2 hours have only been transcribed. Finally, all the student-speaker teams spent about a week back in Kupang preparing the various files for archiving. These recordings are archived in PARADISEC in the AOZ2019 collection (Yanti et al. 2019) and are cited in this dissertation with the speaker's initials and the name of the recording in that collection.

I have also conducted independent fieldwork with several different Uab Meto speakers. In chronological order, in July and August 2019 I elicited some morphological paradigms and simple sentences from Yoakim Kenjam. From June 2021 to June 2022, Tamisha Tan and I conducted weekly elicitation sessions over Zoom with Yoakim Kenjam and Nona Seko acting as consultants, yielding approximately 40 hours of audio and video recordings. These will be archived in PARADISEC in the TJBL1 collection. In June and July 2022 Tamisha Tan and I met for two weeks in Singapore with Yoakim Kenjam, Nona Seko, Yefri Bilaut (Sonba'i-variety speaker), and Sarlince Bana (Ro'is Amarasi-variety speaker) acting as consultants, yielding approximately 26 hours of audio and 28 minutes of video. Tamisha and I made the majority of the recordings together, but there are some where only one of us was present. Most of these recordings (26) are elicitation sessions, but there are also 6 stories created with *Story-builder* cards (Sardinha 2011) as well as 6 naturalistic narratives and conversations between consultants about their time in Singapore. The majority of these recordings have been archived in PARADISEC in the TLT1 collection (Tan et al. 2022), and the ones I made without Tamisha Tan will be archived in the TJBL1 collection. Finally, in January and February 2024 I conducted several elicitation sessions over Zoom with Yoakim Kenjam acting as consultant, adding up to about 5 hours of audio and video recordings. These will also be archived in the TJBL1 collection. In this dissertation I only cite data from the elicitation sessions with these speakers where I was present. These data are cited with the initials of the relevant consultant(s), "elic.", and the date that the example was elicited.

The names, speaker initials, and some demographic information for the cited speakers are as follows. They are presented in the format: name (initials; gender; age as of December 20, 2024; education; other languages spoken). Sarlince Bana (SRB; f; 31; college; Indonesian and English), Yefri Bilaut (YFB; m; 31; college; Indonesian and English), Anselmus Feka (AMF; m; 25; high school; Indonesian), Kanisius Feka (KSF; m; 59; primary school; Indonesian), Yuliana Fobia (YAF; f; 48; high school; Indonesian), Lambertus Kapitan (LTK; m; 61; primary school; Indonesian), Hironimus Kenjam (HNK; m; 55; secondary school; Indonesian), Yoakim Efrem Kenjam (YEK; m; 30; college; Indonesian, Tetum, and English), Nona Seko (NSK; f; 30, college; Indonesian and English)

1.3.2 Previous work on Uab Meto and its contribution to this dissertation

In addition to data from primary fieldwork, this dissertation also references some data and many ideas from previous work on Uab Meto, and so here I will summarize the relevant work. Theoreti-

cally oriented work on Uab Meto started around 1990[2]. Tarno et al. (1992) is an early grammar in Indonesian of the Molo variety that focuses mostly on the phonemic inventory, morphology, and phrasal syntax. I cite some data from this source due to the variety of word forms that it presents to demonstrate the use of various affixes. The earliest work on the Miomafo variety of Uab Meto that I am able to access[3] is Steinhauer (1993) on Miomafo verbal morphology, especially focusing on agreement-prefix allomorphy, verbal suffixes and enclitics, and the forms of roots in different environments. I do not adopt much in the way of theory from this work, but with the exception of voice alternations, it describes many of the relevant morphemes in the verbal complex and demonstrates a high level of attention to phonetic precision that makes its data useful to reference. Steinhauer (1996a,b) are detailed descriptions of the synchronic metathesis in nouns in the Miomafo variety. Here again I find the descriptions and data useful for my work and cite some data from them, but I do not adopt much of the theory. Arka (2001) is an early work on Uab Meto grammar in which Arka argues that Uab Meto exhibits nominative-accusative alignment, focusing mostly on case marking in Miomafo and Biboki. In section 1.6.2 I cite some of the basic-sentence data that he uses to support his argument. I also provide much more data and argumentation for this alignment in case marking and verbal agreement in chapter 4. Manhitu (2007) is a 25-page Indonesian-English-Uab Meto dictionary from which I cite some data. It has been useful to me for several reasons: it cites verbs in a default 3rd-person form; it often provides several ways to translate something into Uab Meto, its Indonesian translations facilitate the identification of potential loanwords, and it reliably indicates [ʔ], which many early sources do not.

The pace of work on Uab Meto seems to have picked up in the 2010s. First, there are a number of publications from 2010 onwards that I do not cite elsewhere in this dissertation. Budiarta 2012 reaches the same conclusion about the nominative-accusative alignment of the Amanuban variety as Arka (2001) does about Miomafo and Boboki. Grimes, Bani & Caet (2012) discusses quantification in Amarasi and Baikeno. Metboki & Bellamy (2014) discusses measure words and numeral classifiers in Amanuban. Culhane (2018) is a BA thesis that discusses consonant epenthesis in Amfo'an, where it occurs in a larger set of environments than in other varieties of Uab Meto. Wulandari (2019) discusses consonant assimilation in Amanatun. Moving onto publications that I do cite, Blust (2013) is not principally about Uab Meto, but he has conducted some of his own fieldwork on the Molo variety, and he sometimes presents data from this fieldwork and from others'

[2]There is also earlier descriptive work on Uab Meto that I do not reference elsewhere in this dissertation. The earliest documentation of Uab Meto of which I am aware is works featuring wordlists for the Molo (Müller 1857) and Amanuban (Kleian 1894) varieties. Later Pieter Middelkoop published a sketch grammar (Middelkoop 1950) and dictionary (Middelkoop 1972), also focused on the Molo variety. Middelkoop (1963) also published a collection of texts from several varieties of Uab Meto, seemingly including at least Ro'is Amarasi, Amanuban, Amanatun, and Molo. All of these are in Dutch apart from Middelkoop (1963) in English, reflecting the colonial history of Timor and Indonesia more broadly. The fact that the Molo variety is emphasized in much of the early work on Uab Meto likely correlates with its historical prestige (Tarno et al. 1992: 10; Steinhauer 1996a: 222). Published writing in Uab Meto itself is fairly limited – most writing by Uab Meto speakers is done in Indonesian – but the Unit Bahasa dan Budaya has translated various parts of the Bible into several varieties of Uab Meto. The closest to Miomafo is a Baikeno-variety translation of the Gospel of Mark (Unit Bahasa dan Budaya 2004).

[3]Edwards (2020: 10-11) mentions two other works on Miomafo that I am unable to access, an MA thesis on its morphology (Talul 1988) and an Optimality-Theory analysis of its segmental phonology (Isu 2013).

work on the language when discussing the typology of Uab Meto and surrounding Austronesian languages in the context of Austronesian as a whole. Naniana Benu, sometimes with co-authors, has a series of descriptive publications[4] on different aspects of the morphosyntax of Amanuban. In this dissertation I cite some data from Benu (2016) describing causatives, Benu, Iye, Simpen, et al. (2022) on causatives and double-object constructions, and Benu, Iye & Abbas (2022) on reciprocal and passive-equivalent constructions. Following Edwards (2020), I refer to passives as statives, though I depart from his and other previous work in describing the "reciprocal" prefix *ma-* as "deobjective" for reasons discussed in section 2.4.3. Lastly, Kate Mooney[5] has written a paper on metathesis in Molo (Mooney 2022) and a dissertation that includes Molo data in a broader discussion of metathesis in different languages (Mooney 2023).

The work with which I have engaged the most comes from Owen Edwards and Tamisha Tan. Owen Edwards has published various papers (Edwards 2016a,b, 2017, 2018) and a book (Edwards 2020) on the phonetics, phonology, and metathesis in the Amarasi varieties. He has also published a comparative dictionary of cognates in Uab Meto and closely related languages on the neighboring island of Rote (Edwards 2021). These works additionally analyze some of the variation between the different varieties of Meto and their historical development. In this dissertation I cite some data from Edwards (2017, 2020, 2021) and some discussion of differences between varieties of Uab Meto in Edwards (2016a). However, the most important thing that I take from Edwards is many of his glosses, his analysis of Uab Meto word, foot, and syllable structure, and his analysis of metathesis in Edwards (2020). Especially early on, his glosses were helpful in providing me with a rough idea of how I should gloss words from the Miomafo variety. This also provided me with a starting point for semantic analyses of the various functional morphemes in the language. His analyses of word, foot, and syllable structure and of metathesis translate well to the facts surrounding the language's agreement-prefix allomorphy that I analyze in chapter 3, so I adopt them, citing ideas where applicable. The major specific ideas from Edwards (2020) that factor into this dissertation are: 1. the idea that all lexical roots are minimally disyllabic where each vowel fills a V slot in a (C)V(C)V(C) foot, with the exception of monosyllabic *ha/ah* 'eat'; 2. the idea that many C-final nouns can be made into verbs via a process of subtractive morphology that removes the final consonant of the root, a process I attempt to formalize; and 3. the first thorough description of agreement-prefix allomorphy, which I expand on and analyze.

As noted in section 1.3.1, Tamisha Tan and I first met in Indonesia in 2019 through our participation in the program for training in linguistic fieldwork and language documentation described there. We also conducted fieldwork together in 2021 and 2022, both virtually and in person. Due to this history of interaction and the fact that we both work on varieties of Uab Meto, our work often but not always focuses on similar issues. Tan (2021) is a presentation that compares subject agreement in different languages across Nusa Tenggara Timur (East Nusa Tenggara, southeast Indonesia) and

[4]Other publications include Benu (2014) describing the forms pronouns and nominal and verbal agreement, Benu (2017) on reduplication, Benu (2019) on possessive constructions, and Benu (2022) on non-verbal clauses and serial verb constructions as well as all the other topics that Benu covers elsewhere.

[5]Kate Mooney initially began working on the Molo variety of Uab Meto in 2018 through her participation in the same program for training in linguistic fieldwork and language documentation in which Tamisha Tan and I participated in 2019.

proposes a diachronic pathway for the development of Uab Meto's verbal agreement. Tan (2022) examines copular constructions and quantified DPs in Kotos and Ro'is Amarasi. Most importantly for this dissertation, Tan 2023 analyzes the morphology, syntax, and historical development of affixes in the Kotos and Ro'is Amarasi verbal complex. The verbal complex is quite similar across Uab Meto varieties, so there are many useful insights that I incorporate into this dissertation, again citing ideas where applicable.

The most significant contributions from Tan (2023) to this dissertation concern certain aspects of the structural analysis of verbs and their applications to agreement-prefix allomorphy. Because of the degree to which our research has interacted, I will provide a timeline of the relevant work. My original conception of Uab Meto verbal structure is laid out in Lemon (2024a) on the syntax of verbal agreement in Miomafo, a WCCFL 39 proceedings paper originally submitted in 2021. This is revised and expanded into my Ph.D. qualifying paper (Lemon 2023), approved in February 2023, which forms the basis of chapter 4 of this dissertation. The structures there include V, v (including causative v), Appl, Voice, and Agr as distinct heads. Tan (2023), published in June 2023, adopts the idea of an independent Agr head that handles subject agreement immediately above Voice, and I in turn adopt some ideas from Tan (2023) concerning the structure of the verbal complex and incorporate them into this dissertation. These ideas include: 1. the idea that Uab Meto causatives are "verb-selecting" in the typology of Pylkkänen (2008: 87) (i.e. select for a vP) and thus between v and Voice, and some of the arguments used to demonstrate this; 2. the idea that many verbs are denominal, being formed from roots that first combine with an n head before combining with a special v head, $v_{[+BE]}$/$v_{[+HAVE]}$; and 3. $v_{[+HAVE]}$ is an allomorph of $v_{[+BE]}$ conditioned by the presence of a Voice head that introduces an external argument, $Voice_{[D]}$. I also incorporate the idea from Tan (2023) that $v_{[+HAVE]}$ plays a role in agreement-prefix allomorphy through its involvement in the conditioning of syllabic (CV-) agreement prefixes, though her formalization is distinct from mine. Lastly, on a more minor note, I incorporate her gloss and corresponding analysis of a verbal enclitic *=n* as a dative (DAT) marker. Beyond what has been mentioned so far, Tan (2023) and I have distinct views of the inventory of Voice prefixes, which suffixes to treat as causative suffixes, and how non-agentive causees are introduced (Appl and $v_{[+CAUS]}$ are combined for her, but separate for me). We also have very distinct analyses of agreement-prefix allomorphy (chapter 3) that fall out from these differences. The relevant contrasts are discussed in more detail in section 3.5.2.

The sources that I have just summarized report data from several different varieties of Uab Meto, so the reader may wonder how this dissertation handles this variation. As noted in section 1.3.1, most of the data in this dissertation come from primary fieldwork, and my fieldwork has primarily been with speakers of the Miomafo variety, so I use data from this variety whenever possible, to ensure that generalizations originally made on the basis of other varieties extend to Miomafo or to present a new generalization when needed. In many cases, speakers of the different varieties say something in the same way, and in those cases I use data from non-Miomafo varieties when they allow for a neater presentation. Of course, there are other cases in which the varieties differ in how they say something, and in those cases I explicitly identify the non-Miomafo data as such in the surrounding prose.

1.4 Theoretical assumptions of this dissertation

The analyses in this dissertation are cast in Distributed Morphology (Halle & Marantz 1993) and more broadly within Minimalism (Chomsky 1995, 2000, 2001). There are several core assumptions and analytical tools that result from these frameworks that factor extensively into this dissertation. The most important one is the idea that syntax extends into words. Morphemes within a word are independent syntactic objects in the same way that whole words are. Words, roots, clitics, and affixes are the same kind of object in the syntax; it is only in the morphology and phonology that these show differences. A related and crucial assumption of this framework is that morphologically complex words are assembled via head movement. I assume that Uab Meto head movement obeys the Head Movement Constraint (Travis 1984), assembling every head between the root and Agr into a single verb-word by moving the root up through every intervening head, forming larger and larger complex heads at each step, until the complex head finally combines with Agr, and the verbal complex is fully derived. These complex heads are assembled in such a way that the hierarchy of the heads is maintained and can be referenced by later operations. In particular, I assume that Vocabulary Insertion, an operation that adds phonological content to terminal nodes, starts at the root and proceed outwards one morpheme at a time (Bobaljik 2000), making reference to the hierarchy of the heads. Vocabulary Insertion chooses from possible morphemes and allomorphs to insert at a particular terminal node according to the Subset Principle (Halle & Marantz 1993), whereby the vocabulary item matching the largest set of features on a node, but crucially not a superset, is selected. I also assume that hierarchical structure is relevant for allomorph selection, which will be elaborated on in detail in chapter 3.

Another assumption that falls out from the assembly of morphologically complex words via head movement is that lexical roots do not have any inherent categorization like noun, verb, adjective, etc. Instead, roots are simply of the category Root (Marantz 1997; Pesetsky 1995), and they derive their conventional syntactic category by combining with a category-defining head like n for nouns and v for verbs (Arad 2003; Embick 2015; Harley 2013, 2014; Marantz 1997, among others). These heads can stack, and thus, words can be recategorized.

Other important aspects of the broader framework of Minimalism that I assume include the operations Merge and Move to generate structure and move constituents from one part of the structure to another (Chomsky 1995), as well as the operation Agree (Chomsky 2000, 2001), which allows for the copying of features, typically ϕ-features like person and number, from a goal to a probe that seeks such features.

Lastly, I assume that the derivation of words and sentences is split into distinct stages as conceptualized in Chomsky & Lasnik (1993) and Halle & Marantz (1993) and built on by work like Arregi & Nevins (2012) and Harley (2014). Broadly, derivations are assumed to start with syntactic operations like Merge, Move, and Agree. Then there is a split such that the outcome of syntactic operations is sent to the Logical Form (LF) branch for semantic interpretation, and it is also sent down the Phonological Form (PF) branch that first includes a morphological component for morphological operations like Impoverishment, Linearization, Fission/Fusion, and Vocabulary Insertion, followed by a phonological component where processes like metathesis (Mooney 2022), assimilation, epenthesis, and deletion occur. Within particular components, operations can be or-

dered relative to each other. Within a larger syntactic structure, not all parts of the structure undergo particular operations at the same time. Rather, Spell-Out, or the set of operations between syntax and phonology (Arregi & Nevins 2012: 4), occurs cyclically, triggered by Merging particular heads into the structure, often labeled "phase heads" (Chomsky 2001). Exactly which heads are phase heads, and how Spell-Out proceeds within a phase once a phase head is reached, are a matter of debate (see, for example, Deal & Wolf 2017).

This section has presented a general overview of the theoretical assumptions that factor into this dissertation. At applicable points in the dissertation I discuss in more detail relevant assumptions and arguments for particular views of the ordering of operations, what information is available to them, and their effects, that is, what is gained, what is lost, what changes, and why. Various pieces of Uab Meto data, especially regarding agreement-prefix allomorphy in chapter 3 and the syntax of agreement in chapter 4, argue for particular views of how certain operations in morphology and syntax must proceed.

1.5 Phonological basics and orthographic conventions

This section discusses the phoneme inventory of the Miomafo variety of Uab Meto and the corresponding orthography used in this dissertation, as well as a pervasive and productive process of metathesis that affects the form of roots and some functional items. These aspects of the language are discussed here in the hope of making the data presented in this dissertation more comprehensible to readers who are not previously familiar with the language. Section 1.5.1 discusses the phoneme inventory and orthography, and section 1.5.2 discusses metathesis and how it interacts with the vowel inventory and the selection of the forms of vowel-initial enclitics that attach to metathesized morphemes.

1.5.1 Phoneme inventory and orthography

The phonemes[6] of the Miomafo variety of Uab Meto are provided in Table 1.1. This inventory is identical to that of Steinhauer (1993: 131-132), though it was determined through independent data gathered in 2019 by a team consisting of me and teammates Yoakim Kenjam and Nona Seko. Uab Meto does not have a standardized orthography, or even a particular unofficial orthography in widespread use to my knowledge, so my team devised a practical orthography based on the phoneme inventory we determined. The symbols used in our orthography are mostly what one would expect based on the International Phonetic Alphabet (IPA), but symbols that differ from the IPA are indicated in angle brackets < > next to the IPA transcription. The Uab Meto data presented in this dissertation adopts this practical orthography.

[6]See discussion later in this section about the close-mid vowels [e] and [o].

	Labial	Alveolar	Postalveolar	Velar	Glottal
Stop	p b	t		k	ʔ <’>
Affricate			dʒ ∼ ʒ <j>		
Fricative	f	s			h
Nasal	m	n			
Lateral		l			

	Front	Back
Close	i	u
Close-mid	e <é>	o <ó>
Open-mid	ɛ <e>	ɔ <o>
Open	a	

Table 1.1: Uab Meto phonemes and orthography

As noted above, the orthography used in this dissertation is mostly what one would expect based on the IPA, with a few exceptions. Among consonants, [ʔ] is represented by <’>, and [dʒ]∼[ʒ] is represented by <j>. Among vowels, <e> and <o> represent the open-mid vowels [ɛ] and [ɔ] respectively, and <é> and <ó> represent the close-mid vowels [e] and [o] respectively. The close-mid vowels [e] and [o] appear to be allophones of the open-mid /ɛ/ and /ɔ/ respectively (Edwards 2020: 92), but minimal pairs sometimes result from metathesis and vowel assimilation, leading to the need for distinct orthographic representations. These mid-vowel contrasts are perhaps a derived environment effect (Kiparsky 1973). A more thorough explanation of this pattern is provided in the discussion of metathesis in section 1.5.2.

Dialectal differences and loanwords also impact the phonemic inventory. The Kotos and Ro’is Amarasi varieties differ from the other Uab Meto varieties, including Miomafo, in that they replace /l/ with /r/ in native words (Edwards 2016a: 113). Speakers of Miomafo and other /l/ varieties often use /r/ in loanwords, and Kotos and Ro’is Amarasi do the same with /l/. Speakers of all varieties of Uab Meto use /d/, /g/, /tʃ/ <c>, /w/, /j/ <y>, /ɲ/ <ny>, /ŋ/ <ng>, and /ə/ <e> in loanwords, especially newer ones, which most often come from Indonesian.

Beyond the representation of phonemes, there are a few other aspects of the orthography of this dissertation that the reader should know. First, known loanwords and loan roots within words are *italicized* in glossed examples. This is done to differentiate them clearly from other morphemes in an example, which is especially useful when discussing how loan roots interact with final-consonant deletion (section 2.2.3) and agreement-prefix allomorphy (3.2). Second, due to the fact that the chief concern of this dissertation is Uab Meto verbal agreement, verbal agreement prefixes are underlined in every other example in this dissertation. Third, following Edwards (2020), a vertical bar or “pipe” <|> is used to separate segments that are epenthesized to the edge of a word for phonotactic reasons from segments that belong to actual morphemes in a word. All three of these additions are illustrated in (10). (10a) shows a loan root, *palsai*, from Indonesian *percaya* ‘believe’ (Tan 2023: 227), with the underlined 1SG subject agreement prefix *’-* attached to it. This example also shows two instances of word-final [a] epenthesis, after the future-tense marker *lof* and the irrealis locative marker *on*. (10b) shows word-initial [a] epenthesis before the underlined 3SG/3PL agreement prefix *n-*. This epenthesis occurs optionally but frequently to break up CCC sequences across word boundaries (10a) as well as phrase-initial CC sequences. Uab Meto has a strict prohibition against CCC sequences, and it also has a strong but violable dispreference for tautosyllabic CC clusters. This is despite the fact that word-initial CC sequences are frequent, as seen both for the root *skool* ‘school’ and the root + the agreement prefix combinations *’palsai* ‘(I) believe’ and *nmui’*

'there is/are'. Vowel epenthesis allows the first consonant in a CC sequence to be syllabified as a coda, e.g. [ʔɔn skɔːl] → [ʔɔ.nas.kɔːl] 'to school'. There is also [ʔ] epenthesis used to resolve hiatus across morpheme boundaries (*V-V) (Tan 2023: 97) and to ensure all words begin with a consonant (Steinhauer 1996b: 479; Edwards 2017; Edwards 2020: 120). Because there is no contrast between V-initial and ʔV-initial words, my team's orthography does not indicate word-initial epenthetic [ʔ], like the ones in *on* [ʔɔn] (IRR.LOC) and *iin* [ʔiːn] 'he/she/it' in (10a), *anmui'* [ʔan.mwiʔ] 'there is/are' in (10b), and *au* [ʔau] 'I' in (10c). Our orthography does indicate word-initial [ʔ] when it is part of a morpheme, as with 1SG *'(u)-* in *'palsai* [ʔ.pal.sai] '(I) believe' in (10a) and *'u'amib* [ʔu.ʔa.mib] '(I) tell to look for' in (10c). Our orthography also indicates word-internal epenthetic [ʔ] like the one between agreement and the root in *'u'amib*, because [ʔ] is contrastive word-medially. All epenthetic segments are glossed as EPEN.

(10) a. Au *'-palsai* iin lof|a n-nao on|a *skool*.
1SG.NOM 1SG-believe 3SG.NOM FUT|EPEN 3-go IRR.LOC|EPEN school
'I believe he/she will go to school.' (YEK; elic. Jun. 29, 2022)

b. A|n-mui' ma-tepo-s.
EPEN|3-have DEOB-hit-NMLZ
'There is a fight.' (YEK/NSK; elic. Sep. 29, 2021)

c. Au 'u-'-ami-b koo faaf=jes.
1SG.NOM 1SG-EPEN-look.for-CAUS 2SG.ACC pig=one
'I tell you to look for a pig.' (YEK; elic. Feb. 2, 2024)

Other than these additions, the orthography follows typical conventions for punctuation and capitalization. Because this dissertation includes Uab Meto data from other sources, their transcriptions are adjusted when necessary to maintain a consistent orthography and glossing.

1.5.2 Metathesis and its interactions

Another aspect of Uab Meto phonology that must be mentioned due to its pervasiveness is the language's productive synchronic metathesis. Uab Meto has a process whereby the final CV sequence of a word metathesizes into a VC sequence. There are no suffixes larger than C, so the final CV sequence of a word is effectively always the final CV sequence of the root. Uab Meto has consistent stress on the penultimate syllable of the word, excluding any enclitics (Edwards 2020: 111-113), so one can generalize that the CV sequence that metathesizes is the one that immediately follows the stressed syllable (Edwards 2020: 176). The details of Uab Meto metathesis are complicated, to the point of warranting a book-length treatment in Edwards (2020) and significant attention in (Mooney 2022; Steinhauer 1993, 1996a,b), so here my aim is merely to describe the language's metathesis in enough detail to ensure that the data presented in this dissertation are comprehensible. The metathesis patterns described here are those of the Miomafo variety, which differ slightly from those in other varieties.

There are two types of metathesis in Uab Meto. In the first type, which I label *type 1*, the vowel within the metathesized VC sequence retains a distinct vowel quality from the vowel preceding it.

This type of metathesis often but not always co-occurs with final-consonant deletion in eligible stems. In the second type, which I label *type 2*, the second vowel fully assimilates into the first.

Type 1 metathesis occurs on CV-final verbs before objects (Steinhauer 1993: 142), adjuncts, and other verbs (Edwards 2020: 311), unless the following word begins with a CC sequence, in which case metathesis is blocked to avoid creating an illicit CCC sequence. (11a) shows the verb *ita/iit* 'see' before an object; (11b) shows *fani/faen* 'return' before an adjunct, and (11c) shows *ha/ah* eat before an object. These objects and adjuncts are not CC-initial, so the verbs are metathesized. However, they surface in their unmetathesized, CV-final forms when followed by CC-initial objects and adjuncts (11d-f).

(11) a. Au **'-iit** maan=bes.
1SG.NOM 1SG-see chicken=one
'I see a chicken.'
(YEK; elic. Feb. 2, 2022)

b. Au **'-faen** on ume.
1SG.NOM 1SG-return IRR.LOC house
'I return home.'
(YEK; AOZ2019-MON001, line 7)

c. Iin **na-ah** sisi.
3SG.NOMl 3-eat meat
'He/she eats meat.'
(YEK; elic. Nov. 3, 2021)

d. Au neon unu' le' au **'-ita** bnao kolo.
1SG.NOM day first REL 1SG.NOM 1SG-see boat bird
'(That was) my first time that I saw an airplane.' (YAF; AOZ2019-MON004, line 61)

e. Au **'-fani** '-tee ume.
1SG.NOM 1SG-return 1SG-arrive house
'I arrive home.'
(YEK; AOZ2019-MON001, line 7)

f. Iin fe' **na-ha** 'maka'.
3SG.NOM still 3-eat rice
'He/she is still eating rice.'
(YEK; elic. Aug. 25, 2021)

Type 1 metathesis also occurs on nouns before attributive modifiers (Steinhauer 1996a: 229) (12a vs. 12b), but not before numerals (12c) and demonstratives (12d). If the noun ends in a consonant, in addition to metathesis, the final C deletes (12e vs. 12f).

(12) a. Hoo mu-'-aena-' kau on **ume**.
2SG.NOM 2SG-EPEN-run-CAUS 1SG.NOM IRR.LOC house
'You run/take me home.' (YEK; elic. Oct. 20, 2021)

b. Au '-taam fuunn=es|a '-bii=n **uim** menas.
1SG.NOM 1SG-enter moon=one|EPEN 1SG-RLS.LOC=DAT house sickness
'I was in the hospital for one month.' (LTK; AOZ2019-MON011, line 105)

c. Hai *bisa* mi-péni n-tee **kolo** bo' haa ai' bo' niim.
1PL.EXC.NOM can 1PL.EXC-get 3-arrive bird ten four or ten five
'We can get up to 40 or 50 birds.' (YEK; AOZ2019-MON002, lines 68-69)

d. **Neno** ii na-'uul.
day DEM.PROX 3-rain
'Today it is raining.' (YEK/NSK; elic. Feb. 16, 2022)

e. **a-mépu-t**
SUB.NMLZ-work-NMLZ
'worker, employee' (YEK; AOZ2019-WORDLIST001, line 250)

f. **a-méóp-∅** lele
SUB.NMLZ-work-NMLZ field
'field worker, farmer' (YEK; AOZ2019-WORDLIST001, line 248)

C-final verbs do not metathesize before objects (13a-b) (Steinhauer 1993: 143), adjuncts (13c), or other verbs (13d).

(13) a. Iin **n-o'en** kau, n-aak Lamber?
3SG.NOM 3-call 1SG.ACC 3-say Lamber
'He called me, said "Lamber"?' (LTK; AOZ2019-MON011, line 173)

b. **'u-leko-'** ... **'u-le'u-n** au *mootr*=e.
1SG-good-CAUS ... 1SG-bad-CAUS 1SG.NOM motorcycle=DEF
'I fixed...broke (the tire of) my motorcycle.' (HNK; AOZ2019-MON006, line 738)

c. Hoo **óóm** labah m-eu kau.
2SG.NOM 2SG.come quickly 2SG-to 1SG.ACC
'You come quickly to me.' (YEK/NSK; elic. Sep. 8, 2021)

d. Au kaes=le **neem** na-poi-n kau.
1SG.NOM boss=DEF 3.come 3-exit-CAUS 1SG.ACC
'My boss came to take me out.' (LTK; AOZ2019-MON011, line 133)

For both nouns and verbs, metathesis occurs and the final C is preserved if the following element is a vowel-initial enclitic (14).

(14) a. **a-méóp-t**=ini
SUB.NMLZ-work-NMLZ=PL.DEF
'the workers'
(LTK; AOZ2019-MON011, line 88)

b. **'u-leok-'**=e
1SG-good-CAUS=3SG.ACC
'(I) repair it'
(HNK; AOZ2019-MON006, line 739)

If a C-final noun is followed by a CC-initial attributive modifier, the final consonant is deleted, but metathesis is blocked (15a) (Steinhauer 1996a: 230); (12b) shows *menas* 'sickness' without deletion. If a C-final verb is followed by a CC-initial object, adjunct, or verb, there is also no metathesis, but there is epenthesis instead of consonant deletion (15b).

(15) a. uim **mena** 'naek
house sickness big
'big hospital' (LTK; AOZ2019-MON011, line 60)

b. Nane au he **'-mate=n|a** '-bii=n nane=t.
DEM.DIST 1SG.NOM IRR 1SG-die=DAT|EPEN 1SG-RLS.LOC=DAT DEM.DIST=SET
'At that point I wanted to die there.' (LTK; AOZ2019-MON011, line 102)

Lastly, roots that end in a VVCV(C) sequence simply drop the final vowel when metathesizing (16a-b), rather than converting the final CV sequence into a VC sequence (Edwards 2020: 172). As with other forms of metathesis, this is blocked before a CC-initial word (16c) or if a verb is C-final (16d). (12a) shows that the final [a] is part of the verb *aena*/*aen* 'run', not an epenthetic segment.

(16) a. Au **'-aen**.
EPEN-1SG.NOM 1SG-run
'I run.' (YEK; elic. Feb. 2, 2024)

b. Oke=t aa iin **n-ait** n-éki 'koe'=les.
then=SET FILL 3SG.NOM 3-pick.up 3-bring CL.animal=one
'Then it took one of them (a fish).' (AMF; AOZ2019-INS001; line 12)

c. **M-aena** m-téén on Kupan nae.
1PL.EXC-run 1PL.EXC-more IRR.LOC Kupang
'We ran away back to Kupang.' (LTK; AOZ2019-MON011, line 47)

d. T-sae e m-uu=t **mu-'-aiti-'** ne *tolak dam*=e n-ook ne *oot*=be nuup-n=a.
1SG.INC-rise FILL 2SG-come=SET 2SG-EPEN-pick.up-CAUS FILL push basin=DEF 3-with FILL car=DEF space.under-3SG.INAL=DEF.OBV
'When we arrive there if you lift the basin (of the truck) to dump, do it from the bottom of the truck.' (LTK; AOZ2019-MON011, line 95)

The same rules for consonant deletion on nouns apply. The consonant is deleted before attributive modifiers (17b) but kept with enclitics (17c). Metathesis occurs in both cases.

(17) a. **uaba'**
speech
'speech' (Edwards 2020: 172)

b. **uab** meto'
speech dry
'Uab Meto, dry speech'
(Edwards 2020: 278)

c. au **uab'**=e
1SG.NOM speech=DEF
'my speech/story'
(YAF; AOZ2019-MON004, line 353)

Type 1 metathesis affects the vowels in the metathesized root in various ways. The relevant effects can be summarized as in (18). These descriptions are based on discussion in Steinhauer (1996a: 229). /a/ assimilates into the preceding vowel (18a); open-mid vowels become close after close vowels (18b); open-mid vowels and following close vowels become close-mid vowels[7] (18c); close vowels become open-mid after /a/ (18d); and VVCV roots drop the final V (18e). Otherwise, one simply changes the order of the final consonant and vowel (18f). The various patterns are illustrated in Table 1.2. Verbs in this table include default 3rd-person agreement. The data in this table come from a combination of Steinhauer (1993, 1996a,b), Edwards (2020: 161-175), and my own fieldwork.

[7]The close vowels sometimes remain close vowels, rather than lowering to close-mid.

(18) a. VCa → VVC
b. $V_{close}CV_{open\text{-}mid} \rightarrow V_{close}V_{close}C$
c. $V_{open\text{-}mid}CV_{close} \rightarrow V_{close\text{-}mid}V_{close\text{-}mid}C$
d. $aCV_{close} \rightarrow aV_{open\text{-}mid}C$
e. VVCV → VVC
f. Otherwise: $V_1CV_2 \rightarrow V_1V_2C$

$V_1\downarrow$ $V_2 \rightarrow$	a	e	i	o	u
a	na-hana → na-haan ‘cooks’	n-mate → n-maet ‘dies’	n-ami → n-aem ‘looks for’	laso → laos ‘poison’	asu → aos ‘dog’
e	n-nena → n-neen ‘hears’	n-nene → n-neen ‘pushes’	n-éki → n-éék ‘brings’	neno → neon ‘sky’	n-mépu → n-méóp ‘works’
i	n-ita → n-iit ‘sees’	na-hine → na-hiin ‘knows’	bibi → biib ‘goat’	kilo → kiul ‘kilogram’	n-inu → n-iun ‘drinks’
o	n-oka → n-ook ‘with’	n-’ote → n-’oet ‘cuts’	n-móni → n-móén ‘live’	kolo → kool ‘bird’	n-mófu → n-móóf ‘falls’
u	n-tupa → n-tuup ‘sleeps’	ume → uim ‘house’	n-mu’i → n-mui’ ‘has, there is’	*unattested*	n-futu → n-fuut ‘ties’
VVCV	n-aena → n-aen ‘runs’ na-maunu → na-maun ‘is crazy’ n-aiti → n-ait ‘picks up’				

Table 1.2: Type 1 metathesis vowel outcomes

Two examples in this table are worth pointing out due to the fact that they have distinct unmetathesized forms but the same metathesized form, *n-nena*/*n-neen* ‘hears’ and *n-nene*/*n-neen* ‘pushes’. Examples like these demonstrate that the unmetathesized forms are the underlying forms of these roots (Edwards 2020: 175). It is fully possible to predict the metathesized form of a root based on its unmetathesized form, but the reverse does not hold.

Type 2 metathesis fully assimilates the second vowel into the first. This type of metathesis occurs on CV-final stems before underlyingly vowel-initial enclitics. This is shown first for nouns in (19). (19) only shows stems that end in /i/, /ɛ/ <e>, and /ɔ/ <o>, and /u/. For Ca-final stems, it is unclear whether they undergo type 2 metathesis, because type 1 metathesis already assimilates the final /a/ to the preceding vowel (11a vs. 11d), so the results are the same either way. In addition, there appears to be a phonotactic constraint against [a]-final words in isolation in native vocabulary, which results, quite fascinatingly, in an apparent absence of nouns whose last vowel is /a/ that do not also have a following consonant, either as part of the root or a suffix, despite plenty of verbs ending in /a/. <e>/[ɛ]-final stems have additional complications that are discussed below.

(19) a. le' **fafi** nae
REL pig DEM.DIST
'(the one which is) that pig' (YEK; AOZ2019-WORDLIST001, line 266)

b. **ume**
house=DEF
'house' (Steinhauer 1996b: 483)

c. **kolo**
bird
'bird'
(AMF; AOZ2019-INS001, line 25)

d. **mépu**
work
'work'
(LTK; AOZ2019-MON011, line 59)

e. **faaf**=je
pig=DEF
'the pig'
(YEK; elic. Aug. 18, 2021)

f. **uim**=le
house=DEF
'the house' (Steinhauer 1996b: 483)

g. le' **kool**=be
REL bird=DEF
'the bird'
(AMF; AOZ2019-INS001, line 28)

h. siin **méép**=be
3PL work
'their work'
(LTK; AOZ2019-MON011, line 59)

A important process related to type 2 metathesis shown in (19e-h) is the insertion of a consonant at the beginning of underlying V-initial enclitics before all V-finals stems except /a/-final stems, discussed below. The choice of consonant is determined allomorphically by the final vowel of the unmetathesized form of the root, providing evidence that the unmetathesized form is the underlying form. (19e-h) feature the definite article enclitic *=e*, which also serves as a 3SG.ACC pronoun. This enclitic surfaces as *=je* after /i/, *=le* after /ɛ/, *=be* after /ɔ/ and /u/, and *=e* when it attaches to a stem that underlyingly ends in /a/ (20c) or a consonant (17c) (Steinhauer 1996b: 483). Other V-initial enclitics like inceptive aspect *=en*, *=es* 'one', *=o-* 'self', and *=a* 'just, only' also exhibit this allomorphy (Steinhauer 1993: 150).

Type 2 metathesis occurs on CV-final verbs before vowel-initial enclitics (20a) and often sentence-finally (20b). One can compare the *faan* form of 'return' in these examples to *faen* in (11b) and *fani* in (11e). Curiously, there are plenty of verb roots that end in /a/, so one can see that type 1 and type 2 metathesis produce the same result for these stems (11a vs. 20c). (20c) also shows that vowel-initial enclitics lack consonant insertion after these stems.

(20) a. Mi-lali=te es∼esa=te **n-faan=jen** on iin ume.
1PL.EXC-finish=SET one.RED∼one=SET 3-return=INCP IRR.LOC 3SG.NOM house
'When we finished, everyone returned home.' (YEK; AOZ2019-MON002, lines 85-86)

b. Hai éém/aim labah=ma **m-faan.**
1PL.EXC 1PL.EXC.come quickly=and 1PL.EXC-return
'We come quickly and return.' (YEK; elic. Sep. 8, 2021)

c. Afi au **'-iit**=e n-bii *pasar*.
yesterday 1SG.NOM 1SG-see=3SG.ACC 3-RLS.LOC market
'Yesterday I saw it at the market.' (YFB/YEK/NSK; elic. Jun. 27, 2022)

Ce-final nouns do no undergo type 2 metathesis, even when an enclitic attaches (21a). Ce-final verbs do not undergo this type of metathesis when an enclitic attaches (21b) but can undergo this type of metathesis sentence-finally (21c). See (12a-b) and (15) for other forms of 'house' and 'die'. Notably, the special /l/-initial forms of enclitics are conditioned here without total vowel assimilation, showing that consonant insertion does not depend on total vowel assimilation.

(21) a. **uim**=le
house=DEF
'the house' (Steinhauer 1996b: 483)

b. Atóni' na-mena=m on he n-ma∼**maet**=la.
man 3-sickness=and IRR.LOC IRR 3-die.RED∼die=just
'People were sick and were dying.' (LTK; AOZ2019-MON011, line 111)

c. Iin ka= na-toon =fa=m n-aak li'aan'=e **n-maat**.
3SG.NOM NEG= 3-tell =NEG=and 3-say child=DEF 3-die
'She didn't tell (me) if the child died.' (LTK; AOZ2019-MON011, line 350)

C-final stems and underlyingly VVCV-final stems do not undergo type 2 metathesis. The relevant environments yield the same form as type 1 metathesis; no vowels change in quality (14). The forms of underlyingly vowel-initial enclitics are affected as expected by the final vowel of underlyingly VVCV-final stems (Edwards 2020: 225). For example, enclitics after *aiti*/*ait* 'pick up' take the *jV* form (22a), while those after *aena*/*aen* 'run' take the no-initial-consonant form (22b).

(22) a. n-ait**=je**
3-pick.up
'picks it up'
(Edwards 2020: 225)

b. '-aen**=en** on Kupang
1SG-run=INCP IRR.LOC Kupang
'I ran off to Kupang.'
(LTK; AOZ2019-MON011, line 4)

The type 2 metathesis outcomes described above can be summarized as in (23). Fewer stems undergo this type of metathesis, so the rules are less complex. These rules only apply to VCV-final stems. An open-mid vowel and following high vowel become identical close-mid vowels, keeping the oroginal frontness or backness of the first vowel (23a). Otherwise, the first vowel does not change at all, and second vowel completely assimilates into the first vowel (23b). C-final and VVCV-final stems only undergo type 1 metathesis. The various vowel outcomes are illustrated in Table 1.3. As with Table 1.2, the data in this table come from a combination of Steinhauer (1993, 1996a,b), Edwards (2020: 161-175), and my own fieldwork.

(23) a. $V_{\text{open-mid, }\alpha\text{front}}CV_{\text{close}} \rightarrow V_{\text{close-mid,}\alpha\text{front}}V_{\text{close-mid, }\alpha\text{front}}C$

b. Otherwise: $V_1CV_2 \rightarrow V_1V_1C$

$V_1 \downarrow V_2 \rightarrow$	a	e	i	o	u
a	na-hana → na-haan ‘cooks’	n-mate → n-maat ‘dies’	n-ami → n-aam ‘looks for’	laso → laas ‘poison’	asu → aas ‘dog’
e	n-nena → n-neen ‘hears’	n-nene → n-neen ‘pushes’	n-éki → n-éék ‘brings’	neno → neen ‘sky’	n-mépu → n-méép ‘works’
i	n-ita → n-iit ‘sees’	na-hine → na-hiin ‘knows’	bibi → biib ‘goat’	kilo → kiil ‘kilogram’	n-inu → n-iun ‘drinks’
o	n-oka → n-ook ‘with’	n-’ote → n-’oot ‘cuts’	n-móni → n-móón ‘live’	kolo → kool ‘bird’	n-mófu → n-móóf ‘falls’
u	n-tupa → n-tuup ‘sleeps’	*unattested*	n-mu’i → n-muu’ ‘has, there is’	*unattested*	n-futu → n-fuut ‘ties’
VVCV	same as type 1				

Table 1.3: Type 2 metathesis vowel outcomes

Now that these metathesis patterns have been explained, we can return to a point made in section 1.5.1, the idea that close-mid vowels [e] and [o] appear to be allophones of the open-mid /ɛ/ and /ɔ/ respectively (Edwards 2020: 92). Type 2 metathesis allows one to derive minimal pairs between close-mid and open-mid vowels even though this contrast does not exist in the underlying forms. Some minimal pairs resulting from this process are provided in (24). First, open-mid vowels become close-mid vowels before high vowels. This always happens during metathesis, and it also usually happens even when the vowels are not adjacent, e.g. /mɛpu/ → [mepu] ‘work’ (19d). After this raising, when the second-vowel fully assimilates into the first, they both end up as close-mid (24a-b). If the underlying open-mid vowel is not followed by a close vowel, this raising to close-mid does not take place. Thus, when the second vowel fully assimilates into the first, they both end up as open-mid (24c-d).

(24) a. Au **’-héél**.
1SG.NOM 1SG-slice
‘I am slicing.’ (Steinhauer 1996a: 223)
‘slice’ = /hɛli/ → [heli] (mid-vowel raising) → [heːl] (type 2 metathesis)

b. Au **’-óót**.
1SG.NOM 1SG-burn
‘I am burning.’ (Steinhauer 1996a: 223)
‘burn’ = /ɔtu/ → [otu] (mid-vowel raising) → [oːt] (type 2 metathesis)

c. Au **’-heel**.
1SG.NOM 1SG-pull
‘I am pulling.’ (Steinhauer 1996a: 223)
‘pull’ = /hɛla/ → [hɛːl] (type 2 metathesis)

d. Au **’-oot**.
1SG.NOM 1SG-cut

‘I am cutting.’ (Steinhauer 1996a: 223)
‘cut’ = /ʔɔtɛ/ → [ʔɔːt] (type 2 metathesis) → [ɔːt] (*[ʔʔ])

Lastly, underlyingly VV(C)-final roots and stems do not undergo any form of metathesis, because they do not have the necessary post-tonic CV sequence (Edwards 2020: 176). These are still worthwhile to look at, because they allow one to see the conditioning vowel of the stem overtly adjacent to the enclitic whose form it conditions. The final [ɔ] of *nao* ‘go’ (25a) conditions the [b]-initial form of inceptive *=en* (25b), and the final [i] of *tui* ‘write’ (25c) conditions the [dʒ]-initial form of the 3SG accusative *=e* (25d). Examples like these provide another argument for the unmetathesized forms of roots and stems being the underlying forms. If these are the underlying forms, then one can say that enclitic allomorph selection takes place before metathesis, and the conditioning environment for particular forms is whatever segment is adjacent to the enclitic at this stage.

(25) a. Ina n-**nao**.
3SG.NOM 3-go
‘He went.’ (YEK; AOZ2019-MON002, line 63)

b. Au ’-**nao**=ben.
1SG.NOM 1SG-go=INCP
‘I am starting to go.’ (YEK/NSK; elic. Oct. 6, 2021)

c. Au ’-**tui** au kaan-k=e.
1SG.NOM 1SG-write 1SG.NOM name-1SG.INAL=DEF
‘I wrote my name.’ (YEK; elic. Nov. 24, 2019)

d. Buuk=be sekau esa n-**tui**=je?
book=DEF who FOC 3-write=3SG.ACC
‘The book was written by who?’ (More literally: ‘The book, who wrote it?’)
(YEK/NSK; elic. Aug. 4, 2021)

VVC-final roots and stems behave like other C-final stems in selecting for the V-initial allomorph of underlyingly V-initial enclitics (26).

(26) a. hiit **kuan**
1PL.INC.NOM village
‘our village.’
(KSF; AOZ2019-MON003, line 35)

b. **kuan**=e
village=DEF
‘the village.’
(YEK; AOZ2019-MON002, line 6)

1.6 Case and verbal agreement: Morphology and alignment

Now that I have discussed the essential aspects of Uab Meto phonology and morphophonology, in this section I will discuss the basics of the morphology and alignment of case and verbal agreement in Uab Meto. I will provide pronoun and agreement prefix paradigms and show that Uab Meto has nominative-accusative alignment both in its case marking and in its verbal agreement. The section

will finish with a brief discussion of the head movement to Agr that I assume occurs to form the verbal complex. This is relevant for creating the proper complex-head configuration for allomorphy within the verbal complex, and it is also needed independently to derive the correct word order in ditransitive constructions.

1.6.1 Paradigms

Though most nominals in Uab Meto are not marked for case, personal pronouns show a distinction between nominative and accusative, with the nominative forms also being used for possession (53b, 80b). Some pronouns have distinct unmetathesized and metathesized forms (Table 1.4, left side). This is shown below in the relevant cells as unmetathesized/metathesized. In general, the unmetathesized forms are used before consonant clusters (27a), and the metathesized forms are used elsewhere (27b). Additionally, the 3SG.ACC enclitic *=e* is subject to considerable allomorphy of a different fashion. As discussed in section 1.5.2, it surfaces as *=e* when it attaches to a stem that underlyingly ends in /a/ or a consonant, *=je* after /i/, *=le* after /ɛ/, and *=be* after /ɔ/ and /u/.

Regarding verbs, Uab Meto is typologically unusual among Austronesian languages in general, but typical of languages of the Lesser Sunda Islands in southeastern Indonesia, in having obligatory verbal agreement with subjects in person and number (Blust 2013: 88). Verbs are marked with one of two sets of subject-agreement prefixes, an asyllabic set consisting of single consonants and a syllabic set consisting of the same consonants and a following vowel (Table 1.4, right side). Particular verbs take prefixes from one set or the other; the choice between the two sets is largely conditioned by the phonology and morphology of the stem along with some lexical variation (Edwards 2020: 440). This allomorphy will be discussed in more detail in chapter 3.

		SG		PL	
		NOM	ACC	NOM	ACC
1ST	INC			hita/hiit	kita/kiit
	EXC	au	kau	hai	kai
2ND		hoo	koo	hii	kii
3RD		ina/iin	=e	sina/siin	

		SG		PL	
		asyll.	syll.	asyll.	syll.
1ST	INC			t-	ta-
	EXC	’-	’u-	m-	mi-
2ND		m-	mu-	m-	mi-
3RD		n-	na-	n-	na-

Table 1.4: Uab Meto pronouns (left) and agreement prefixes (right)

1.6.2 Case and agreement alignment and the derivation of the verbal complex

With an understanding of case and agreement morphology in place, we are now ready to discuss their alignment. Importantly for chapter 4, Uab Meto exhibits nominative-accusative alignment in its pronouns and its verbal agreement prefixes. I will illustrate this first with simple, 1-verb sentences. To start, unaccusative (27a) and unergative (27b) verbs agree with nominative-marked subjects, and the agreement prefix takes the same form in both cases. This pattern shows that there is

no split among intransitive verbs, ruling out active-stative alignment. In the examples in (27)-(29), the nominative subject and the agreement prefix that reflects its ϕ-features are bolded[8].

(27) a. **Ina** **n-**móóf.
3SG.NOM 3-fall
'He/she falls.' (Steinhauer 1993: 135)

b. **Iin** **n-**aen.
3SG.NOM 3-run
'He/she ran.' (Arka 2001: 1)

Monotransitive (28) and ditransitive (29) verbs also agree with nominative subjects. These sentences show that intransitive and transitive subjects are marked the same way morphologically, and verbs agree with these nominative subjects, rather than any object. These examples rule out ergative-absolutive alignment. Thus, one can conclude that Uab Meto has NOM-ACC alignment in its pronouns and verbal agreement.

(28) a. **Iin** **na-**tiik kau.
3SG.NOM 3-heel 1SG.ACC
'He/she kicked me.' (Arka 2001: 1)

b. **Au** **'u-**tiik=e.
1SG.NOM 1SG-heel=3SG.ACC
'I kicked him/her.' (Arka 2001: 1)

(29) a. **Au** **'-**fee koo pena'.
1SG.NOM 1SG-give 2SG.ACC corn
'I give you corn.'
(YEK/NSK; elic. Mar. 16, 2022)

b. **Sina** **n-**fee kau pena' bian.
3PL 3-give 1SG.ACC corn some
'They gave me some corn.' (YEK; AOZ2019-WORDLIST001, line 268)

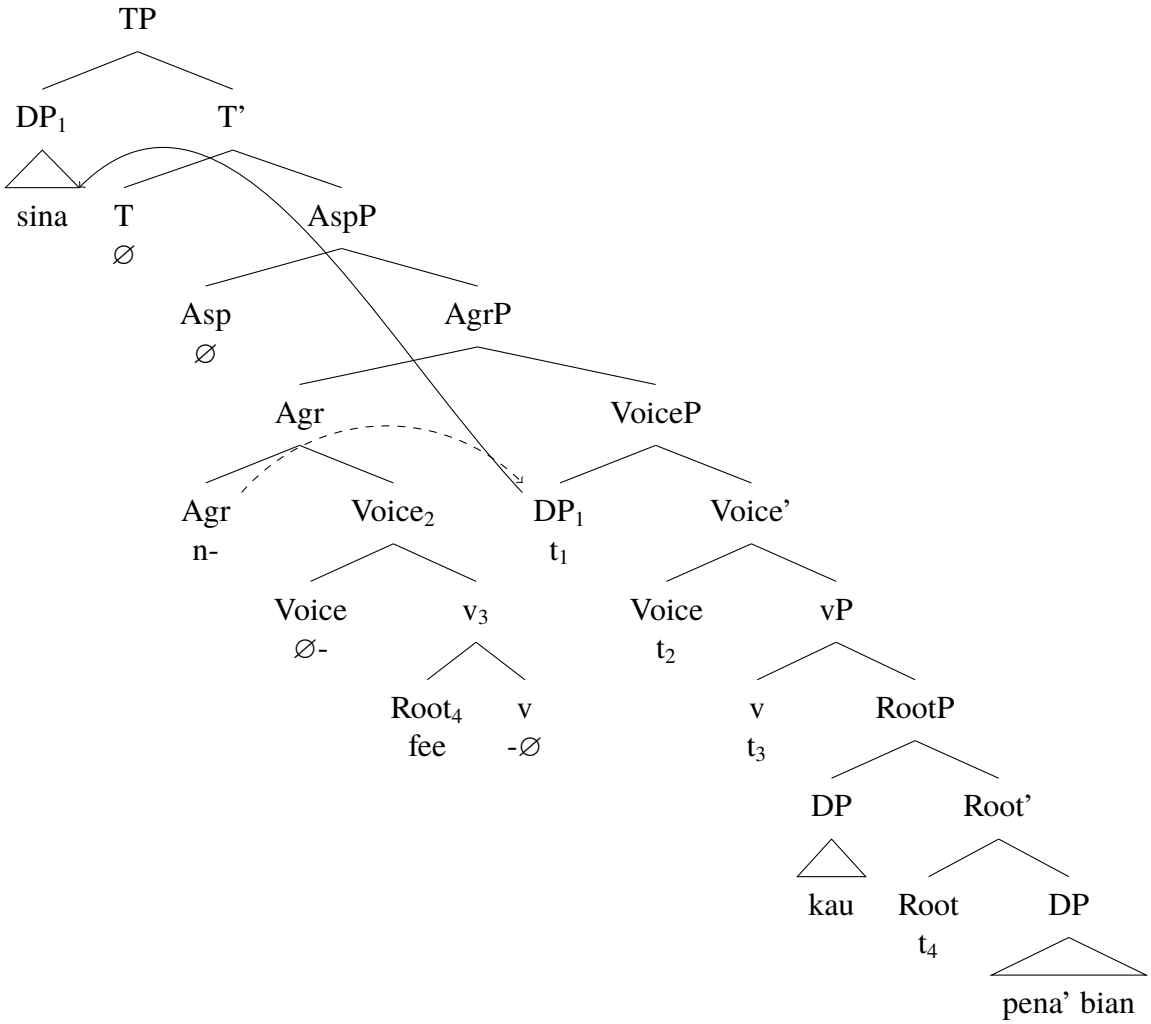
The discussion in this introduction so far has been primarily descriptive. Starting from this point the discussion will shift to being more theoretical. What follows is the first part of this dissertation's theoretical analysis of Uab Meto verb and clause structure. The analysis that follows presents aspects of Uab Meto clause structure that I propose are present in every clause with at least one verb. This is intended to serve as a summary of the core syntactic proposals of this dissertation, all aspects of which will receive more attention in the chapters to come.

The derivations of all sentences with verbs in Uab Meto involve agreement and movement. DPs can be base-generated in several different places. I follow Harley (2014) in assuming that patient DPs are generated as complements of the root, and I follow Pylkkänen (2008), Harley (2013), Legate (2014), and Alexiadou, Anagnostopoulou & Schäfer (2015) (among others) in assuming that external arguments are introduced in Spec,VoiceP. I also assume that inherently ditransitive verbs introduce the recipient in a specifier of the root. These DPs can be targeted for agreement and movement. I will argue in chapter 4 that Agr sits immediately above Voice and targets the highest DP for agreement. I will also argue there that this DP moves to Spec,TP, where it receives nominative case. Movement of the subject to Spec,TP is necessary to derive its usual place preceding TAM markers and negation. Objects stay in-situ. Additionally, I propose that verbal complexes are derived through head movement minimally of the root, v, and Voice to Agr. This has the effect of

[8]Uab Meto is a pro-drop language. Agreement is mandatory, but overt pronouns are not required (20a, 22b). However, overt pronouns are used very frequently (12c, 15b), and their use does not appear to be pragmatically marked. All the examples cited here are naturalistic. It remains unclear what factors govern their use.

deriving the correct word order in ditransitives, where the verbal complex precedes both objects, and it also helps account for the allomorphy that the root, v, Voice, and Agr condition on each other (chapter 3), by bringing all the relevant heads into a complex-head structure (chapter 2). To illustrate my assumptions about the derivation of basic sentences, the proposed structure of (29b) is provided in (30). The solid arrow represents movement, and the dashed arrow represents the ϕ-probe on Agr targeting the highest DP for agreement.

(30)



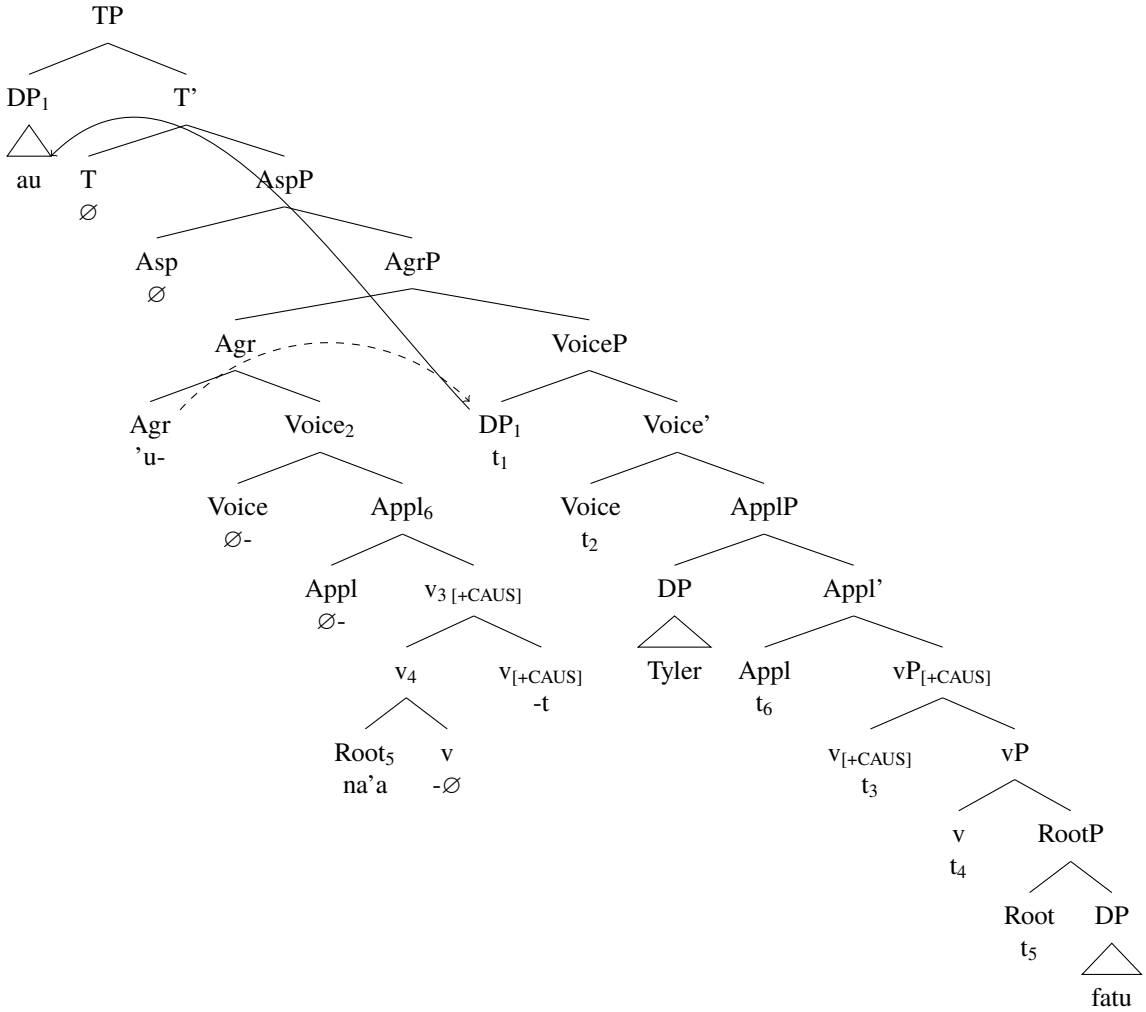
A small number of verbs like *fee* 'give' in (29)/(30) are inherently ditransitive, with a recipient DP introduced by the root itself, but a larger number of verbs can be made ditransitive through processes like causativization. This involves adding more heads into the verbal complex. For example, the monotransitive verb *na'a/naa'* 'hold' in (31a) can be made into the ditransitive *na'at* 'hand to' (31b) with the addition of *-t*, one of the allomorphs of causative v ($v_{[+CAUS]}$).

(31) a. Au **’-naa’** fatu.
1SG.NOM 1SG-hold stone
‘I hold a stone.’ (SRB/YFB/YEK/NSK; elic. Jun. 27, 2022)

b. Au **’u-na’a-t** Tyler fatu.
1SG.NOM 1SG-hold-CAUS Tyler stone
‘I hand Tyler a stone.’ (YFB/YEK/NSK; elic. Jun. 27, 2022)

As will be discussed in more detail in chapter 2, causatives in Uab Meto are of the middle-sized vP-selecting or “verb-selecting type in the typology of (Pylkkänen 2008: 87; Tan 2023: 327). This means that $v_{[+CAUS]}$ selects for a vP. Relatedly, causatives do not embed a second agent. The causer is introduced as an agent in Spec,VoiceP, but the causee is introduced lower, in Spec,ApplP. Crucially for our purposes here, this means that in addition to Voice, v, and the root, Appl and $v_{[+CAUS]}$ also head-move to Agr when present. This derives the correct word order, with the causee *Tyler* after the verb. This head movement is illustrated in (32) for the causativized transitive in (31b).

(32)



In summary, Uab Meto has NOM-ACC alignment. Uab Meto verbs preferentially agree with intransitive and transitive subjects marked with nominative case, distinct from the accusative case that

marks objects. Subjects move to Spec,TP to receive nominative case, and the root, Voice and any other heads in the clausal spine that are present between them head-move to Agr. All of these aspects are elaborated on and justified in the chapters to come. Chapter 2 will discuss all the elements that head-move into the verbal complex; chapter 3 will use the structure formed from the movement of these heads to Agr in order to account for the allomorphy that these heads condition on each other; and chapter 4 will discuss case and agreement from a syntactic standpoint.

1.7 Structure of the dissertation

The rest of this dissertation proceeds as follows:

Chapter 2 describes and analyzes the morphology, syntax , and some of the semantics of all the different affixes in the Uab Meto verbal complex. The chapter argues that Uab Meto verbs, include the following heads from lowest to highest: Root, n, v/$v_{[+BE]}$/$v_{[+HAVE]}$, $v_{[+CAUS]}$, Appl, Voice, Agr. Some of these heads, like Voice, come in several types that will be motivated. The root, v, Voice, and Agr are always present, while the other heads are only present in specific circumstances. Affixes that display allomorphy, like stative *m(a)-* and $v_{[+CAUS]}$, and affixes that display some other form of phonological manifestation, like the subtractive morphology of $v_{[+BE]}$/$v_{[+HAVE]}$, also receive an analyses of these morphophonological properties.

Chapter 3 describes and analyzes the allomorphy displayed by Uab Meto's subject-agreement prefixes. It assumes the analysis from chapter 2 that places Agr in the highest position in the verbal complex, and thus, all relevant allomorphic conditioning comes from structurally lower heads and stems. First is a detailed description of the patterns, including some patterns that are lexically idiosyncratic, such as verbs that involve root-vowel changes either in addition to or in place of the usual agreement prefixes. Then the chapter turns to a discussion of important theoretical underpinnings of the analysis. The proposed Obliteration operation for Uab Meto verbs is described step by step and contrasted with related but distinct Pruning (Embick 2010, 2015) and Obliteration (Arregi & Nevins 2007, 2012) operations. There is also a discussion of Uab Meto syllable and foot structure, which clarify how the number of syllables in stems is determined for the purposes of Agr allomorphy. Then the chapter moves onto the analysis of Agr allomorphy, showing how a requirement for structural adjacency between Agr and the conditioning head or stem, combined with Obliteration of null intervening morphemes, can account for the various patterns. The chapter finishes with a discussion of alternative analyses and their pros and cons. These analyses include 1. attributing a much larger share of the allomorphy to phonological conditioning via a greater proportion of CC-initial stems to avoid creating illicit CCC sequences, 2. a ghost consonant that creates covert CC sequences that have the same effect as overt ones, and 3. conditioning based on the properties of Spell-Out domains. The chapter finishes with a discussion of the theoretical contributions of the proposed allomorphy analysis.

Chapter 4 begins with a typological framing of different forms of agreement that have been proposed in previous work: high absolutive, low absolutive, and high nominative, the last of which is often just described as nominative. The chapter then introduces Uab Meto negation and its various TAM markers and demonstrates that these elements are above Agr through evidence like these

elements' inability to agree, their not blocking agreement on verbs, and the ability of some of them to license VP ellipsis, which elides agreement. Then the chapter provides some additional evidence, following up on chapter 2, showing that Agr is above all the other projections within the verbal complex, and agreement maintains nominative alignment in its preference for agreeing with the highest DP, regardless of it origin. There is also some discussion of topic and focus, which are also above agreement. This discussion allows one to have a complete picture of Uab Meto clause structure. The analysis ultimately proposes that agreement is on an independent Agr head immediately above Voice, while a higher T head moves the subject to it and assigns nominative case to it. Then the chapter turns to a typological comparison of Uab Meto agreement with agreement in other languages. The chapter demonstrates that Uab Meto agreement is true agreement and not any form of clitic doubling through evidence like its frequently co-occuring with subject pronouns, its being obligatory, and its being compatible with non-referential subjects. The chapter also examines some consequences of the separation of agreement and case assignment and locating agreement within each verbal complex. Agr can agree with DPs bearing both nominative and accusative case. In addition, the possibility of multiple verbs, each with their own Agr probe, results in verbs in the same clause agreeing independently, often targeting different DPs.

Chapter 5 reiterates the main findings of the dissertation, discusses open questions, and proposes possible directions for future work.

Chapter 2

The structure of the Uab Meto verbal complex

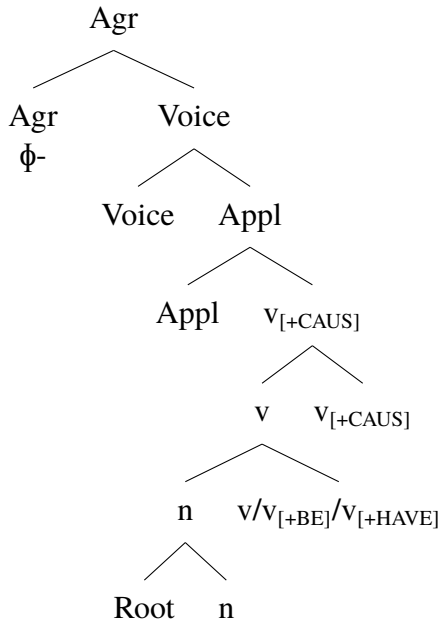
2.1 Introduction and summary of the chapter

This chapter discusses the various elements that can appear in the Uab Meto verbal complex and their relative hierarchy. This chapter also analyzes the allomorphy displayed by a few v and Voice heads, which is not a main focus of the chapter but is nevertheless important. **Section 2.2** motivates the existence of the various v heads that turn heads of different categories into verbs. "Default" v combines with roots, and $v_{[+BE]}$ and $v_{[+HAVE]}$ combine with roots that have previously combined directly with a nominalizing head (n). In terms of allomorphy, n and "default" v are always null. $v_{[+HAVE]}$ is an allomorph of $v_{[+BE]}$ inserted in the context of any Voice head that introduces an external argument, notated as $\text{Voice}_{[D]}$. Neither $v_{[+BE]}$ nor $v_{[+HAVE]}$ have any overt allomorphs in a direct sense, but both often trigger the deletion of the final consonant of the nouns that they verbalize, a form of subtractive morphology. **Section 2.3** discusses $v_{[+CAUS]}$, which morphologically causativizes verbs, and Appl, which introduces the causee of causativized transitives. $v_{[+CAUS]}$ has five allomorphs that are mostly lexically conditioned, *-b*, *-'*, *-n*, *-t*, and *-∅*. Appl is always null. **Section 2.4** discusses the Voice heads "default" Voice, stative *m(a)-* and deobjective *ma-*, which are straightforward to distinguish both morphosyntactically and semantically. "Default" Voice yields an active syntax, and it is always null. Stative *m(a)-* suppresses agents, and it takes the form *m-* in its unproductive use on verbs and *ma-* in its productive use on stative nominalizations. Deobjective *ma-* suppresses patients, and it takes the form *ma-* in its productive verbal and nominal uses. **Section 2.5** discusses the syntax of Agr, though its complicated allomorphy is saved for chapter 3. **Section 2.6** concludes.

This chapter analyzes the structure of the verbal complex to conclude that the root is the lowest, followed by n, followed by default $v/v_{[+BE]}/v_{[+HAVE]}$, then $v_{[+CAUS]}$, then Appl, then Voice, and then Agr. This hierarchy is illustrated in (33). Not all of these heads are present in every verbal complex. There are four parts that are always present; from lowest to highest these are the root, v, Voice,

and Agr[1]. In causativized verbs there are also Appl and $v_{[+CAUS]}$, which are between v and Voice. Denominal verbs have roots that first combine with n and then $v_{[+BE]}$ or $v_{[+HAVE]}$ instead of "default" v.

(33)



There are many other parts of the clausal spine above Agr, including negation and tense-aspect-mood (TAM) marking as well as Ā projections like Topic and Focus, but these do not have any effect on allomorphy within the verbal complex, so these will be set aside for the time being. More thorough discussion of these parts of the Uab Meto clausal spine and why they are placed above Agr can be found in chapter 4 and in (Lemon 2024a).

2.2 The root and category-defining heads

This section will discuss the lower part of the verbal complex, below $v_{[+CAUS]}$. The heads in this part of the verbal complex include the root, n, "default" v, $v_{[+BE]}$, and $_{[+HAVE]}$.

2.2.1 The root

Following standard practice in Distributed Morphology (Halle & Marantz 1993), I assume the existence of a Root head separate from other heads within words and sentences. Roots contribute the lexical meaning of the words in question. In Uab Meto, words with roots can be divided into nouns and verbs. The easiest way to distinguish them is morphologically. Nouns lack agreement, while verbs have it. Simple nouns can be morphologically bare (34a), while verbs require agreement (34b), as is shown below for the root *mépu* 'work'.

[1]Agr is absent in nominalized verb stems (see section 2.5), but it is present in all actual verbs.

(34) a. Siin **mépu** m-bii=n Oe'sao ii.
3PL work 3-RLS.LOC=DAT Oe'sao DEM.PROX
'Their work is in Oe'sao here.' (LTK; AOZ2019-MON011, line 12)

b. Sina **n-mépu** m-bii=n Oebobo naan.
3PL 3-work 3-RLS.LOC=DAT Oebobo DEM.DIST
'They worked in Oebobo there.' (LTK; AOZ2019-MON011, line 39)

In Uab Meto, as in other languages, roots first combine with functional heads that categorize the root. The root may combine with an nominalizing (n) head to form a noun or a verbalizing (v) head to form a verb. Categorizing heads can also combine with larger constituents to change their category (e.g. changing a noun into a verb or the opposite). There are several such heads in Uab Meto.

2.2.2 "Default" v

The first kind of v is the "default" v. This v combines with roots to turn them into verbs, and it adds event semantics for the event described by the root (Alexiadou, Anagnostopoulou & Schäfer 2015: 50). I assume this v is present in all non-denominal verbs, meaning all verbs where the root first combines with a v head instead of an n head. This group includes verbs of all types of transitivity, including the non-causativized verbs in (27)-(29) and (31a) as well as the causativized verb in (31b). This v is illustrated in the trees in (30) and (32). This v is always null and does not affect allomorphy of other parts of the verbal complex, so there will not be much to say about it in this chapter.

2.2.3 n, $v_{[+BE]}$, and $v_{[+HAVE]}$

Some verbs in Uab Meto are formed on nominal bases, rather than root bases. Structurally, this means that roots in these cases first combine with an n head before combining with a v head. A special type of v, $v_{[+BE]}$, combines with a nominalized root. This v head is always silent. This portion of the analysis draws heavily from Tan (2023: 181-187), who herself draws on Myler (2016). Tan observes that a significant portion of CV-initial verbs that have syllabic agreement prefixes can be analyzed as denominal. The relevant roots are first covertly nominalized before combining with v, Voice, Agr, and the rest of the sentential structure. This nominalization is quite low, attaching directly to the root, in contrast with the often overt nominalization affixes that attach to Voice that will be discussed in section 2.5.

These covertly nominalized roots combine with $v_{[+BE]}$, which has two allomorphs. In the absence of an external argument, it surfaces as $v_{[+BE]}$, which adds the semantics of 'to be NOUN', where the noun is indicated by the nominalized root. In the presence of an external argument, this v head surfaces as $v_{[+HAVE]}$, which adds the semantics of 'to have NOUN', where the noun is again indicated by the nominalized root. In their analysis, the selection of the $v_{[+HAVE]}$ allomorph is conditioned by the presence of a Voice head that introduces an external argument, which can be notated as $Voice_{[D]}$, where D stands for "determiner". Sample vocabulary entries based on Myler (2016:

254) and Tan (2023: 184) are provided in (35). I assume that in order for the $v_{[+HAVE]}$ allomorph to be conditioned, it must be structurally adjacent to $Voice_{[D]}$. I will also propose a condition of structural adjacency for agreement-prefix allomorphy in section 3.4.

(35) a. $v_{[+BE]} \longleftrightarrow v_{[+HAVE]}$ / $Voice_{[D]}$ _
b. $v_{[+BE]} \longleftrightarrow v_{[+BE]}$ / elsewhere

On the surface, this alternation may appear to be one of distinct v heads with distinct semantics, but Myler (2016: 255) analyzes the alternation between $v_{[+BE]}$ and $v_{[+HAVE]}$ as allomorphy. In his analysis, the English verb *have* (36a) is a light verb that is the spell-out of the light verb *be* when it is in a transitive clause. This transitivity is supplied by Voice introducing an external argument. Many languages lack the *have* allomorph and instead express possession in an intransitive way, such as with an existential or locative construction. (36b) shows an example from Russian. The differing interpretations of $v_{[+BE]}$ and $v_{[+HAVE]}$ are due, in his view, to the allosemy of the Voice head with which $v_{[+BE]}$/$v_{[+HAVE]}$ combine, rather than $v_{[+BE]}$ and $v_{[+HAVE]}$ having different semantics themselves. (37) provides sample allosemy rules and associated semantics for agentive (37a) and possessive (37b) Voice heads, which are instances of $Voice_{[D]}$, and a default identity-function alloseme (37), which does not introduce an external argument and so is not $Voice_{[D]}$. As discussed in section 2.4.1, I assume that "default" or "active" Voice exhibits allosemy and the associated variation in the introduction of an external argument along the lines of (37).

(36) a. I **have** a book. (Myler 2016: 5)
b. U menja **est'** kniga.
at 1SG.GEN be_{exist}.3.SUB book
'I have a book.' (Myler 2016: 5)

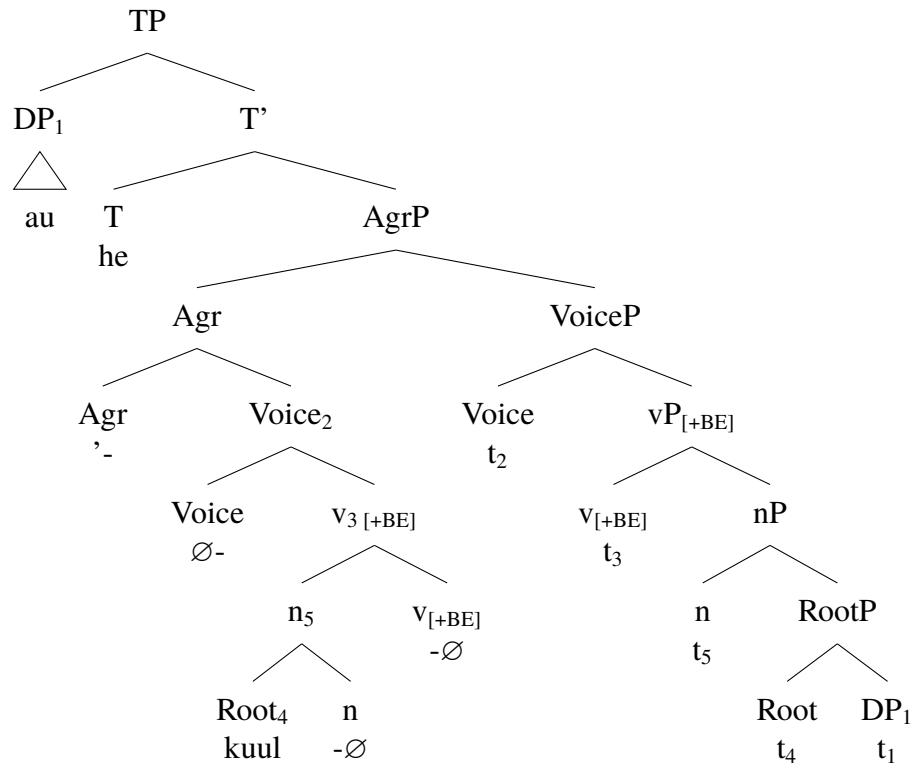
(37) a. [[Voice]] $\longleftrightarrow \lambda x_e.\lambda e_s$.Agent(x,e) / _ (agentive, dynamic event)
b. [[Voice]] $\longleftrightarrow \lambda x_e.\lambda e_s$.Holder(x,e) / _ (stative eventuality)
c. [[Voice]] $\longleftrightarrow \lambda x.x$ / _ elsewhere (Myler 2016: 255)

Some denominal verbs have an unaccusative structure and combine with $v_{[+BE]}$. This is not the correct environment for the $v_{[+HAVE]}$ allomorph, so one derives the default $v_{[+BE]}$ interpretation whereby the subject IS the noun described by the denominal verb. Some examples are provided in (38). The bolded verbs in these examples could be analyzed respectively as being derived from the nouns *ate* 'slave, servant' (Tan 2023: 184), *ma'mu'i* 'poor, unfortunate' (Tan 2023: 284), and *kulu* 'teacher'.

(38) a. Hoo **m-'aet**.
2SG.NOM 2SG-servant
'You are a servant.' (Tan 2023: 184)
b. Iin fe'|a **n-ma'muu'**.
3SG.NOM still|EPEN 3-poor
'They (the people) are still poor.'
(YAF; AOZ2019-MON004, line 153)
c. Au he **'-kuul**.
1SG.NOM IRR 1SG-teacher
'I want to be a teacher.'
(YEK & NSK; elic. Nov. 3, 2021)

The proposed structure of (38c) is provided in (39). It is based on a structure for (38a) provided in Tan (2023: 185).

(39)



Other denominal verbs combine with a Voice head that introduces an external argument, forming an unergative predicate. This environment conditions the $v_{[+HAVE]}$ allomorph, and so one derives the interpretation whereby the subject HAS the noun described by the denominal verb. Some examples are provided in (40). The bolded verbs in these examples could be analyzed as deriving from the nouns *menas* 'sickness', *foo* 'smell, stink', *masa-f* 'form, shape', *mina'* 'oil', *sufa'* 'blossom, tree flower', *fua-f* 'fruit' (Tan 2023: 182, 184, 435-457), and *bua'* 'clod, wad, clump' (Manhitu 2007: 9)[2]. In (40a-d), more idiomatic translations are given first, followed by more literal translations.

(40) a. Au **'u-meen**.
1SG.NOM 1SG-sickness
'I am sick.' / 'I have sickness.'
(YEK; elic. Dec. 15, 2021)

b. Au **'u-foo**.
1SG.NOM 1SG-smell
'I stink.' / 'I have a smell.'
(Steinhauer 1993: 136)

c. Hoo **mu-maas**.
2SG.NOM 2SG-form
'You are beautiful.' / 'You have form.'
(YEK; elic. Oct. 28, 2021)

d. **Na-miin**.
3-oil
'It is delicious.' / 'It has oil.'
(YEK; elic. Sep. 29, 2021)

[2]The *-f* suffix present on some of these nouns appears on inalienable nouns for generic uses when they are unpossessed. It is dropped when these nouns are verbalized. Dropping final root or suffix consonants is common when verbalizing nouns in Uab Meto (Edwards 2020: 259-260).

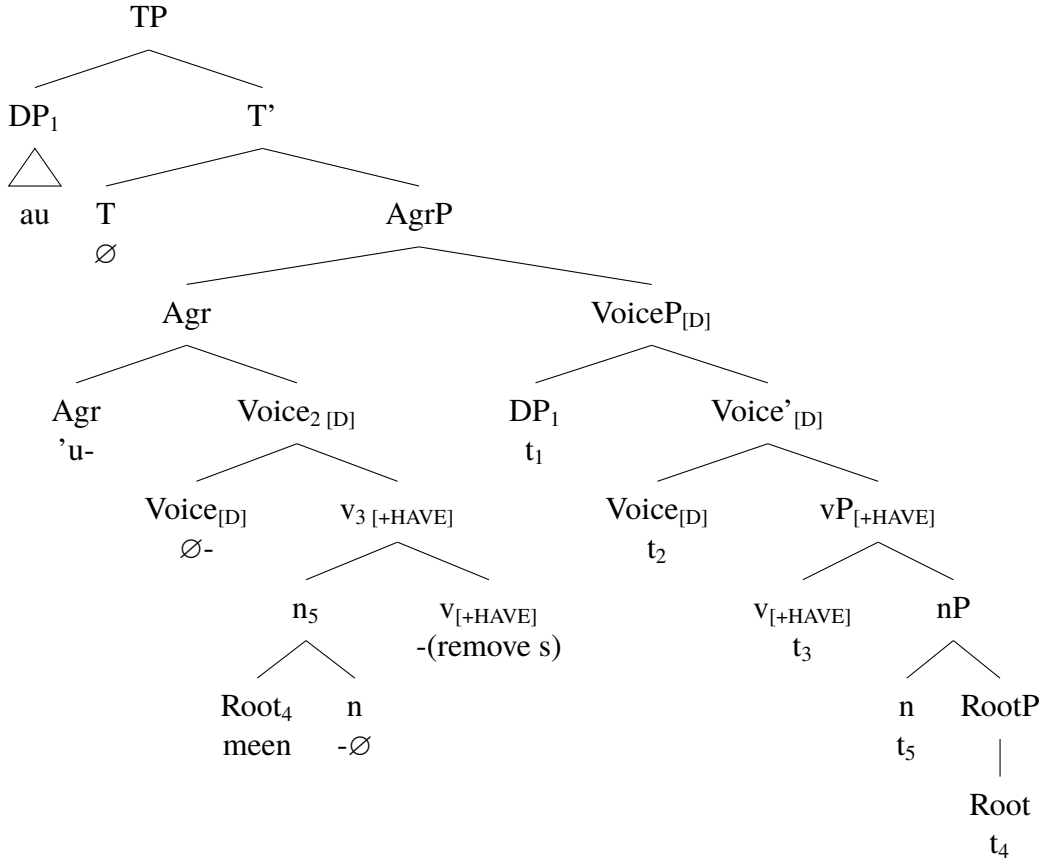
e. Hau nuunh=e tuun-n=e *biasa* kalu **<u>na-</u>suuf** ai' **<u>na-</u>fua** kool=be
tree banyan=DEF top-3SG.INAL=DEF usual when 3-tree.flower or 3-fruit bird=DEF
<u>na-</u>mfau.
3-many

'Usually when the banyan tree has flowers or fruit, there are many birds.'
(YEK; AOZ2019-MON002, line 65)

f. Hai **<u>mi-</u>bua** ok∼oke <u>m-</u>bii kuan=e.
1PL.EXC.NOM 1PL.EXC-clump all.RED∼all 1PL.EXC-RLS.LOC village=DEF
'We all gathered together in the village.' (YEK; AOZ2019-MON002, line 6)

The proposed structure of (40a) is provided in (41). Tan (2023: 185) proposes that these unergative predicates containing $v_{[+HAVE]}$ are covertly transitive, with the denominal verb being coindexed with a silent and/or covertly incorporated object. Nothing about agreement-prefix allomorphy or any other allomorphy in the verbal complex depends on this choice, so I remain uncommitted either way, and the tree below represents them as truly unergative.

(41)



Lastly, there are also some overtly transitive denominal verbs that combine with $v_{[+HAVE]}$. The verbs in (42) could be analyzed as deriving from the nouns *tika-f* 'heel' (Tan 2023: 454) and *hina-f*

'knowledge'. The literal meanings of the resulting verbs 'kick' and 'know' could be something like 'have a heel on' and 'have knowledge of'.

(42) a. Au **'u-tiik**=e.
1SG.NOM 1SG-heel=3SG.ACC
'I kicked 3SG.'
(Arka 2001: 1)

b. pleent=e *karna* **na-hiin** kiit
government=DEF because 3-knowledge 1PL.INC.ACC
'because the government knows us'
(YAF; AOZ2019-MON004, line 171)

(38), (40), and (42) show that the denominal verbs that combine with $v_{[+BE]}$ take asyllabic agreement prefixes, and those that combine with $v_{[+HAVE]}$ take syllabic agreement prefixes. This observation will be important in the discussion of agreement-prefix allomorphy in chapter 3.

It may strike the reader as odd that there are two allomorphs, $v_{[+BE]}$ and $v_{[+HAVE]}$, that are both null. Shouldn't allomorphs have distinct forms? While the evidence for a direct, overt expression of either of these allomorphs is unclear, as will be discussed below, the allomorphs differ in their behavior after Vocabulary Insertion. More specifically, as discussed in section 3.4.6, null $v_{[+HAVE]}$ and $v_{[+CAUS]}$ are not subject to Obliteration when null, unlike null "default v" or $v_{[+BE]}$. Obliteration (Arregi & Nevins 2007, 2012) is a post-syntactic operation that eliminates morphemes from the structure based on some trigger condition. Eligibility for the version of Obliteration proposed in section 3.4.6 is primarily phonological. All morphemes that are Obliterated are null, but not all null morphemes are Obliterated. For reasons discussed below, $v_{[+BE]}$ may not actually be null, requiring the postulation of an additional process in 3.4.6 that explains why $v_{[+BE]}$ acts as if it has been Obliterated in some circumstances. Ultimately, there is something featurally distinct about the phonology or morphology of $v_{[+HAVE]}$, even if it does not correspond to a segmental or suprasemental feature, and this motivates the postulation of distinct allomorphs.

There is some evidence for overt phonology associated with $v_{[+BE]}$ and $v_{[+HAVE]}$ from apparent subtractive morphology in some noun-verb pairs. More specifically, many of the noun-verb pairs mentioned above, especially those in (40) and (42), feature a noun that ends in a consonant and a verb that lacks that final consonant. In some cases, the missing final C on the verb corresponds to a clear synchronic suffix on the noun, such as inalienable *-f* on *hina-f* 'knowledge' being dropped from the verb *na-hina*/*na-hiin* 'knows' (42), so cases like these are not surprising. One could say that the n affixes that attach in these cases are different, that the same affixes have null allomorphs when combining with a verbalizing head, or that inalienable agreement affixation is not an n head but is only possible in non-verbalized structures. On the other hand, there are also some cases where the consonant that is missing from the verb is clearly part of the root, even to the point of being etymologically reconstructed back to Proto-Malayo-Polynesian (PMP) (Edwards 2020: 455, Tan 2023: 200). Some examples are shown in (43). The PMP reconstructions are provided in IPA based on the reconstruction of Blust (2013: 554).

(43) a. uim **menas** (< PMP *ma-pəgʲəs 'sick')
house sick
'hospital' (LTK; AOZ2019-MON011, line 105)

b. **ulan** (< PMP *quɟ͡ʝan 'rain')
rain

‘rain’ (YEK; AOZ2019-WORDLIST001, line 134)

c. **mina’** (< PMP *miŋak ‘fat, grease’)
oil
‘oil’ (YEK; AOZ2019-WORDLIST001, line 103)

d. Au ’u-**meen**.
1SG.NOM 1SG-sickness
‘I am sick.’ (YEK; elic. Dec. 15, 2021)

e. Neno ii na-**’uul**.
day DEM.PROX 3-rain
‘Today it is raining.’ (YEK/NSK; elic. Feb. 16, 2022)

f. Na-**miin**.
3-oil
‘It is delicious.’ (YEK; elic. Sep. 29, 2021)

These could be considered examples of subtractive morphology, and I ultimately believe that is the correct analysis. However, it is hard to generalize about what causes the process because of its inconsistent application. For example, though the final /s/, /n/, and /ʔ/ of the base nouns elide in the corresponding verbs in (43), they remain for the verbs in (44). In all cases the final consonant is morphologically part of the root.

(44)

a. **monas**
naked
‘bare, naked’ (Manhitu 2007: 22)

b. **lóitan**
repair
‘(a/the) repair’
(based on Tan 2023: 450)

c. **papa’**
wound
‘wound’ (Tan 2023: 242)

d. Au ’-**monas**.
1SG.NOM 1SG-naked
‘I am naked.’ (Steinhauer 1993: 134)

e. mi-**lóitan** keen-t=ini
1PL.EXC-repair shoot-NMLZ=PL.DEF
‘(we) repaired the guns’
(YEK; AOZ2019-MON002, line 14)

f. na-**papa’**
3-wound
‘is wounded’ (Tan 2023: 242)

The roots in (43) and (44) do not have any clear phonological differences that would allow one to explain this difference in behavior, nor do they have any clear morphosyntactic differences. Both denominals that combine with $v_{[+BE]}$ (asyllabic agreement prefixes, 43) and those that combine with $v_{[+HAVE]}$ (syllabic agreement prefixes, 44) can drop the final C of the noun or not, suggesting lexical specificity (Tan 2023: 101). We have not yet seen a denominal that combines with $v_{[+BE]}$ that drops its final C, so an example is provided in (45). Another is (47b).

(45) a. leel **meto'**
field dry
'dry field'
(YAF; AOZ2019-MON004, line 255)

b. n-**meto**
3-dry
'is dry' (Tan 2023: 238)

Adding to the lexical idiosyncrasy, there are even some verbs that *add* a final consonant in comparison to the corresponding noun (46). As discussed in section 2.3.1, there are several -C allomorphs of causative v ($v_{[+CAUS]}$), including *-'*, but there is no apparent causative meaning here.

(46) a. **leke** / na-**leke'**
dirt / 3-dirt
'dirt, grime'/'dirty' (Manhitu 2007: 6, 7)

b. Hoo mu-**leke'**.
2SG.NOM 2SG-dirt
'You are dirty.' (YEK; elic. Jan. 24, 2024)

From the data that we have seen so far, one can say that only the verbs that exhibit final C-deletion are actually denominal, while the other verbs are formed from roots that combine directly with a v head, but one can find variable behavior even within the same verb roots in different contexts. For example, the noun *metan* 'black' (47a) loses its final /n/ when used as an intransitive verb (47b). It retains its /n/ in the nominal compound *oe metan* 'dirt, black water' (48a) and also keeps the /n/ when used as an intransitive verb (48b), but it drops the /n/ again in its causative form (48c). While the nominal forms consistently retain the final /n/, being a verb is not sufficient in this case to predict the loss of the /n/.

(47) a. Ao-n=e **metan**.
body-3SG.INAL=DEF black
'His body was dirty.'
(LTK; AOZ2019-MON011, lines 128)

b. Iin nees-n=e n-**meta**.
3SG.NOM contents-3SG.INAL=DEF 3-black
'Its contents (i.e. insides) are black.'
(HNK; AOZ2019-MON006, line 789)

(48) a. oe **metan**
water black
'black water'
(YEK; elic. Jan. 24, 2024)

b. n-'oe-**metan**
3-water-black
'be dirty'
(Tan 2023: 328)

c. n-'oe-**meta**-b
3-water-black-CAUS
'make dirty'
(Tan 2023: 328)

Tan (2023: 240-242) analyzes these alternations as arising from historical suffixes that are still productive in other places in Uab Meto. In cases like the inherited root consonants in (43) this would have involved reanalysis of these root consonants as nominal suffixes or enclitics. Some examples of /s/, /ʔ/, and /n/ being used in these ways in the modern language are shown in (49). (49c) and (49d) show the homophonous 3SG inalienable possession suffix *-n* and plural enclitic *=n* as which a root-final /n/ could have been reanalyzed. This is a plausible historical origin of the pattern, and explains why the majority of observed cases of final-C loss between nouns and verbs involve consonants that correspond to known affixes and enclitics.

(49) a. tepo-**s**
hit-NMLZ
'a hit'
(Steinhauer 1993: 151)

b. ma-tepo-**'**
STAT-hit-NMLZ
'(thing that is) hit'
(YEK; elic. Jul. 28, 2021)

c. aas=be fefa-**n**
dog=DEF mouth-3SG.INAL
'the dog's mouth'
(AMF; AOZ2019-INS001; line 31)

d. tua-f hiit ai' fanu**=n**
person-INAL seven or eight=PL
'seven or eight people'
(YEK; AOZ2019-MON002, line 23)

However, speakers must still learn this pattern in the contemporary language, and interestingly this generalization about which consonant participate in final C-loss is not absolute. For example, *susal* (50a) is a loan from Malay/Indonesian *susah* 'sad, difficult' (Tan 2023: 321) that participates in this process. I am unsure of the source of the /l/ in the Miomafo-variety version of the loan, though Manhitu (2007: 7) gives both the forms *susal* and *susar* for 'suffering', suggesting that this loan is present in both /l/-using and /r/-using varieties of Uab Meto. Relevant for our purposes here, neither the /h/ in the loan nor /l/ or /r/ that replaced it in the Uab Meto nominal forms is a consonant that corresponds to any suffix or enclitic in the language of which I am aware, either synchronically or historically. And yet, we still see the loss of this consonant across different varieties of the language in the causative verb, including Amanuban (50b), Amarasi (50c), and Miomafo (50d).

(50) a. Au he '*-pikir* ***susal*** sa'a.
1SG.NOM IRR 1SG-think difficult what
'I don't think it's difficult at all.'
(HNK; AOZ2019-MON006, line 168)

b. Au 'u-***suse***-b koo.
1SG.NOM 1SG-difficult-CAUS 2SG.ACC
'I make you sad.'
(Benu, Iye, Simpen, et al. 2022: 178)

c. na-***susa***-b
3-difficult-CAUS
'troubles someone'
(Tan 2023: 321)

d. Naika' mu-***suus***-b=o-m.
NEG.IMP 2SG-difficult-CAUS=self-2SG.INAL
'Don't cause difficulty for yourself.'
(HNK; AOZ2019-MON006, line 291)

The existence of examples like (50), which features both a loanword and consonant that is unlikely to have every been analyzed as a suffix, suggests that there is a genuine process of subtractive morphology in the derivation of verbs from nouns in Uab Meto. On this point I agree with Edwards (2020: 259-260). The difficulty, as noted above, is in predicting exactly when it occurs. Some verbs do it, and some verbs don't. Tan (2023: 242) notes that final-C loss is more common with final /ʔ/ than other consonants, and that this may represent the presence of a synchronic nominalizing suffix /-ʔ/ in the relevant cases, but there are still exceptions like (44f) that need to be accounted for.

Ultimately, I leave an analysis of verbalizing final-C loss to future research. What I have attempted to demonstrate here is that $v_{[+BE]}$ and $v_{[+HAVE]}$ *can* have an overt phonological presence, though this is only apparent in a difficult-to-classify subset of C-final denominal verbs. This is important for a general understanding of verbal derivation in Uab Meto, and it will also be important in section 3.4 for the analysis of agreement-prefix allomorphy and how it interacts with various other heads in the verbal complex, including $v_{[+BE]}$ and $v_{[+HAVE]}$. This knowledge will especially

prove useful in section 3.4.6 in deciding when special Obliteration rules need to be posited for v heads.

2.2.4 The syntax of the root, its arguments, and categorizing heads

I assume, following convention, that the root is the lowest element in the verbal complex, and it combines with a category-defining head before any other functional projections (Marantz 1997, Arad 2003, Harley 2013, 2014, Embick 2015, among others). Relevant to the analysis here is that v and n are categorizing heads that turn the root into a verb or a noun respectively. These categorizing heads do not need to be the first functional projections to combine with a root, but a root must combine with one of them first before potentially combining with others. Because denominal verbs are by definition first categorized as nouns, they must first combine with n before being recategorized as verbs by combining with v. Relevant structures are provided in (39) and (41) above. As we will see in sections 2.4.2 and 2.5, categorizing heads can combine at higher points, with non-categorizing material intervening, but one can still take away from this discussion the idea that the lowest part of a lexical word in Uab Meto (and possibly every language) consists of a root and the first categorizing head.

The trees in this dissertation also assume, following Harley (2014), that roots can take complements. In fact, roots can also be analyzed as taking specifiers in some cases, such as with verbs that are inherently ditransitive like *fee* 'give' (30). As we will see in section 2.3.3, this assumption can help explain contrasting judgments in acceptability of causer subjects, as opposed to agent subjects, with different types of ditransitive verbs, due to the different heights at which causees can be introduced relative to causers. This evidence will also form part of an argument in sections 2.3.2-2.3.3 for the postulation that Voice is above Appl, which is above v.

2.3 $v_{[+CAUS]}$ and Appl

We will now move to the middle part of the verbal complex, just above the n and v category-defining heads. This part of the verbal complex includes causative v ($v_{[+CAUS]}$) and the Appl head that introduces the causees of causativized transitives. These projections are only present in morphologically causativized verbs.

2.3.1 The morphological manifestation of $v_{[+CAUS]}$

$v_{[+CAUS]}$ has several allomorphs, including -' (51), *-b* (52), *-n* (53), *-t* (54), and -∅ (55). All the overt allomorphs are a single consonant. Semantically, $v_{[+CAUS]}$ adds an additional causative event such that a causer causes a causee to carry out the event described by the lexical verb. The (a) examples below show base verbs, while the (b) examples shows their causativized counterparts.

(51) a. Au **’-faen**.
1SG.NOM 1SG-return
‘I return.’ (YEK; elic. Jul. 30, 2019)

b. Au **’u-fani-’** koo.
1SG.NOM 1SG-return-CAUS 2SG.ACC
‘I return you.’ (YEK; elic. Jul. 30, 2019)

(52) a. Au **’-sae**.
1SG.NOM 1SG-rise
‘I rise.’ (YEK; elic. Mar. 25, 2021)

b. Hoo **mu-sae-b** kau.
2SG.NOM 2SG-rise-CAUS 1SG.ACC
‘You raise me.’ (YEK; elic. Mar. 25, 2021)

(53) a. Un∼uun’=e, au **’-poi** ’u-’koo *skool*=e.
first.RED∼first=DEF 1SG.NOM 1SG-exit 1SG-from school=DEF
‘First I finished (primary) school.’ (LTK; AOZ2019-MON011; line 2)

b. Au kaes=le neem **na-poi-n** kau.
1SG.NOM boss=DEF 3.come 3-exit-CAUS 1SG.ACC
‘My boss came to take me out.’ (LTK; AOZ2019-MON011, line 133)

(54) a. Au **’-naa’** fatu.
1SG.NOM 1SG-hold stone
‘I hold a stone.’ (SRB/YFB/YEK/NSK; elic. Jun. 27, 2022)

b. Au **’u-na’a-t** Tyler fatu.
1SG.NOM 1SG-hold-CAUS Tyler stone
‘I hand Tyler a stone.’ (YFB/YEK/NSK; elic. Jun. 27, 2022)

(55) a. Mna-ha-t a|**n-puun**.
NMLZ-eat-NMLZ EPEN|3-rot
‘Food rotted.’ (SRB/YFB; elic. Jun. 30, 2022)

b. Maans=e **na-puun-∅** sina mna-ha-t.
sun=DEF 3-rot-CAUS 3PL NMLZ-eat-NMLZ
‘The sun rotted their food.’ (SRB/YFB/YEK/NSK; elic. Jul. 2, 2022)

Unaccusative, unergative, and monotransitive verbs can all be causativized. *fani*/*faen* ‘return’ (51), *sae* ‘rise’ (52), *poi* ‘exit’ (53), and *punu*/*puun* ‘rot’ (55) are unaccusative (Tan 2023: 104, 178, 229). *na’a*/*naa’* ‘hold’ (54) is monotransitive. Unergative verbs (Tan 2023: 178) like *tupa*/*tuup* ‘sleep’ (56) and *aena*/*aen* ‘run’ (57) can be causativized with the same suffixes. For ‘run’, consultant YEK prefers the *-’* causative suffix with this verb, while NSK prefers *-b*.

(56) a. Ina **n-tuup** es haal’=e tuun.
3SG.NOM 3-sleep IPFV.LOC bed=DEF top
‘She is sleeping on the bed.’ (YEK; AOZ2019-WORDLIST001, line 261)

b. Au **’u-tupa-b** koo.
1SG.NOM 1SG-sleep-CAUS 2SG.NOM
‘I put you to sleep.’ (YEK; elic. May 19, 2021, based on Steinhauer 1993: 154)

(57) a. Iin **n-aen**.
3SG.NOM 3-run
‘He/she ran.’ (Arka 2001: 1)

b. Hoo **mu-'-aena-'/-b** kau on ume.
2SG.NOM 2SG-EPEN-run-CAUS 1SG.NOM IRR.LOC house
'You run/take me home.' (YEK/NSK; elic. Oct. 20, 2021)

Monotransitive verbs can also be causativized. We have already seen (54) with *na'a*/*naa'* 'hold' with the *-t* allomorph of $v_{[+CAUS]}$. Other examples include *mnau* 'remember' with *-b* (58), *aiti*/*ait* 'pick up' with *-'* (59), and *éku*/*éók* 'eat' (60) and *inu*/*iun* 'drink' with *-t* (61). For 'drink', consultant YEK prefers *-t*, while consultant NSK prefers *-'*.

(58) a. Au **'u-mnau** koo.
1SG.NOM 1SG-remember 2SG.ACC
'I remember you.' (YEK/NSK; elic. Feb. 2, 2022)

b. Au **'u-mnau-b** koo he m-soos manu.
1SG.NOM 1SG-remember-CAUS 2SG.ACC IRR 2SG-buy chicken
'I remind you to buy a chicken.' (YEK; elic. Feb. 2, 2022)

(59) a. Oke=t aa iin **n-ait** n-éki 'koe'=les.
then=SET FILL 3SG.NOM 3-pick.up 3-bring CL.animal=one
'Then it took one of them (a fish).' (AMF; AOZ2019-INS001; line 12)

b. T-sae e m-uu=t **mu-'-aiti-'** ne *tolak dam*=e n-ook
1SG.INC-rise FILL 2SG-come=SET 2SG-EPEN-pick.up-CAUS FILL push basin=DEF 3-with
ne *oot*=be nuup-n=a.
FILL car=DEF space.under-3SG.INAL=DEF.OBV
'When we arrive there if you lift the basin (of the truck) to dump, do it from the bottom of the truck.' (LTK; AOZ2019-MON011, line 95)

(60) a. Au **'-éók** bolo.
1SG.NOM 1SG-eat cake
'I eat cake.'
(YEK/NSK; elic. Jul. 14, 2021)

b. Au **'u-'-éku-t** koo bolo.
1SG.NOM 1SG-EPEN-eat-CAUS 2SG.ACC cake
'I feed you cake.'
(YEK/NSK; elic. Jul. 14, 2021)[3]

(61) a. Au **'-iun** oe(l).
1SG.NOM 1SG-drink water
'I drink water.'
(YEK/NSK; elic. Jul. 14, 2021)[4]

b. Au **'u-'-inu-t/-'** koo oe(l).
1SG.NOM 1SG-EPEN-drink-CAUS 2SG.ACC water
'I give you water.'
(YEK/NSK; elic. Jul. 14, 2021)

One notable effect of causativization is its effect on agreement-prefix allomorphy. Base verbs that take Agr prefixes from the asyllabic set in their base uses switch to syllabic prefixes when causativized (51-61, except 58). Base verbs that take syllabic prefixes continue to do so when

[3] A [ʔ] is epenthesized after agreement to prevent the grammatically-required syllabic Agr prefix from attaching to a vowel-initial stem.

[4] 'water' is *oel* in the Miomafo variety and *oe* in the Amanuban variety.

causativized (58). This change to syllabic prefixes for most causativized verbs occurs regardless of the choice of $v_{[+CAUS]}$ allomorph. This means that for verbs that take the -∅ allomorph, this change in Agr prefix allomorph is the only overt morphological indication of causativization, as with *punu*/*puun* 'rot' (55), *mafu*/*maof* 'be dizzy, be drunk' (62), and *mófu*/*móóf* 'fall' (63).

(62) a. Au **'-maof**.
1SG.NOM 1SG-dizzy
'I am drunk.'
(YEK; elic. Oct. 27, 2021)

b. Au **'u-maof-∅** koo.
1SG.NOM 1SG-dizzy-CAUS 2SG.ACC
'I make you drunk.'
(NSK; elic. Oct. 27, 2021)

(63) a. Au '-aak kaha', au ka= **'-móóf** =fa=t.
1SG.NOM 1SG-say NEG 1SG.NOM NEG= 1SG-fall =NEG=SET
'I said no, I did not fall.' (LTK; AOZ2019-MON011, line 175)

b. **Na-móóf-∅** n-aen iik'=e=t, n-oba aas=be fefa-n.
3-fall-CAUS 3-finish fish=DEF=SET 3-to dog=DEF mouth-3SG.INAL
'It dropped the fish, right into the dog's mouth.'
(AMF; AOZ2019-INS001; lines 30-31)

The particular $v_{[+CAUS]}$ allomorph that a verb takes is lexically idiosyncratic. There are no apparent phonological or grammatical factors that affect the choice of suffix. The best candidate that I have found is that *-t* is almost entirely attested on causativized monotransitives in the Miomafo variety on which this chapter is primarily based, but even with *-t* there are exceptions like *sanu*/*saon* '(go) down' (64).

(64) a. =ma **'-sanu** '-fani=m ...
=and 1SG-down 1SG-return=and ...
'and I went down again, and...' (LTK; AOZ2019-MON011, line 324)

b. Hai **mi-sanu-t** sina m-bii=n *cabang* Oe'o nane=m ...
1PL.EXC.NOM 1PL.EXC-down-CAUS 3PL 3-RLS.LOC=DAT branch Oe'o DEM.DIST=and ...
'We dropped them off at the Oe'o bus branch there, and ...'
(LTK; AOZ2019-MON011, line 226)

Another piece of evidence for lexical idiosyncrasy is the fact that there are a few cases of the same root taking different suffixes, even for the same speaker. A particularly interesting example is provided below in (65). Tan (2023: 325) lists 6 verbs that the Amarasi varieties attest with more than one $v_{[+CAUS]}$ allomorph. In some of these cases, like the one below, there can be a meaning difference associated with the change from one to another. For example, the root *toko*/*took* 'sit' means 'settle' when combining with *-b* and 'seat' when combining with *-'*. Notably, different speakers that I have consulted have different patterns than this. Amanuban consultant NSK allows both suffixes, but with the *opposite* meanings associated with each. Meanwhile, Miomafo consultant YEK allows both but has no meaning difference, only having the more literal causative meaning of 'seat'.

(65) a. **na-toko-b**
3-sit-CAUS
'settles, makes someone reside/inhabit'
(Tan 2023: 325)

b. **na-toko-'**
3-sit-CAUS
'seats someone, builds something'
(Tan 2023: 325)

c. Iin **ma-toko-'**.
3SG.NOM STAT-sit-CAUS
'It (e.g. land) is settled.' (NSK) / 'He/She/It is seated.' (YEK; elic. May 11, 2022)

d. Iin **ma-toko-b**.
3SG.NOM STAT-sit-CAUS
'He/She/It is seated.'
(YEK/NSK; elic. May 11, 2022)

As another example of lexical idiosyncrasy by dialect, (66) shows the outcome of asking four consultants (YEK, NSK, SRB, and YFB) to translate the same Indonesian sentence *kamu menjatuhkan saya* 'you drop me'. They were all seated together in the same room with me and Tamisha Tan and therefore were part of the same conversational context. Furthermore, this is not one of the verbs that Tan (2023) lists as permitting more than one $v_{[+CAUS]}$ allomorph. Nevertheless, we received translations featuring -∅ (YEK and NSK, 66a), -' (SRB, 66b) and -*t* (YFB, 66c).

(66) Indonesian sentence to translate:
Kamu men-jatuh-kan saya.
2SG AV.TV-fall-CAUS 1SG
'You drop me.' (created Jul. 2, 2022)

a. Hoo **mu-móuf-∅** kau.
2SG.NOM 2SG-fall-CAUS 1SG.ACC
'You drop me.'
(YEK/NSK; elic. Jul. 2, 2022)

b. Hoo **mu-mófu-'** kau.
2SG.NOM 2SG-fall-CAUS 1SG.ACC
'You drop me.' (SRB; elic. Jul. 2, 2022)

c. Hoo **mu-mófu-t** kau.
2SG.NOM 2SG-fall-CAUS 1SG.ACC
'You drop me.' (YFB; elic. Jul. 2, 2022)

Some of this may be idiolectal variation, but the data available to me suggest that at least for verbs like *mófu*/*móuf*/*móóf*, this is a point of dialectal variation. Amanuban speaker NSK agrees with Miomafo speaker YEK in using -∅ (63). Benu (2016) provides the Amanuban example (67a), which uses the same -∅ as Amanuban speaker NSK. Furthermore, Tan (2023) provides the Ro'is Amarasi example (67b), which uses the same -' as Ro'is Amarasi speaker SRB.

(67) a. Hoo **mu-móuf-∅** kau.
2SG.NOM 2SG-fall-CAUS 1SG.ACC
'You cause me to fall.'
(Benu 2016: 153)

b. Hoo **mu-mófu-'** *hape*=jaan
2SG.NOM 2SG-fall-CAUS cell.phone=DET.MED
'You dropped the handphone.'
(Tan 2023: 324)

The only firm conclusion that can be made about the allomorphy of $v_{[+CAUS]}$ is that the *-b* allomorph is the default. *-b* is the most productive suffix (Edwards 2020: 454, Tan 2023: 321), occurring on the largest number of verbs, and it is also applied to loans. One example is Malay/Indonesian *susah* 'sad, difficult', which takes the *-b* allomorph in the Amanuban (68a), and Amarasi (68b), and Miomafo (68c) varieties. Another example shown later in (180b) is Dutch *lezen* 'read', rendered in the Amarasi variety as *resa*/*rees*.

(68) a. Au **'u-*suse*-b** koo.
1SG.NOM 1SG-difficult-CAUS 2SG.ACC
'I make you sad.'
(Benu, Iye, Simpen, et al. 2022: 178)

b. **na-*susa*-b**
3-difficult-CAUS
'troubles someone' (Tan 2023: 321)

c. Naika' **mu-*suus*-b**=o-m.
NEG.IMP 2SG-difficult-CAUS=self-2SG.INAL
'Don't cause difficulty for yourself.'
(HNK; AOZ2019-MON006, line 291)

This lexical idiosyncrasy associated with $v_{[+CAUS]}$ can be expressed through relatively uninformative vocabulary entries for the five allomorphs of $v_{[+CAUS]}$ like the ones in (69). These are based on the patterns in the Miomafo variety among verbs that we have seen in this section. [-t] is the default for causativized transitives, which involve a special Appl head to introduce causees; this is discussed in more detail in section 2.3.2. Lexical selection overrides grammatical and phonological selection.

(69) a. $v_{[+CAUS]} \longleftrightarrow$ [-t] / Appl _ OR _ *sanu*/*saon* 'go down'
b. $v_{[+CAUS]} \longleftrightarrow$ [-'] / *fani*/*faen* 'return', *aena*/*aen* 'run', *aiti*/*ait* 'pick up', ... _
c. $v_{[+CAUS]} \longleftrightarrow$ [-∅] / *mófu*/*móóf* 'fall', *punu*/*puun* 'rot', *mafu*/*maof* 'dizzy' ... _
d. $v_{[+CAUS]} \longleftrightarrow$ [-n] / *poi* 'exit' ... _
e. $v_{[+CAUS]} \longleftrightarrow$ [-b] / elsewhere

As one can see from these entries, the allomorphy of $v_{[+CAUS]}$ is mostly lexically selected, based on the identity of the root. In the verbal structure being developed in this chapter, $v_{[+CAUS]}$ is not structurally adjacent to the root, but section 3.4.6 discusses how these morphemes can be made adjacent.

2.3.2 The syntax of $v_{[+CAUS]}$

Now that the morphology and allomorphic effects of the causative suffixes have been discussed, we can move onto their syntax. I assume that *-'*, *-b*, *-n*, *-∅*, and *-t* are causative v ($v_{[+CAUS]}$) heads, in line with analyses of morphological causatives in languages like Hiaki (Harley 2013) and Acehnese (Legate 2014). As noted in section 1.6.2, I assume that patient DPs are generated as complements of the root and that agents are introduced in Spec,VoiceP. Causers are often interpreted as agents, but crucially for the purposes of accounting for agreement-prefix allomorphy, morphological causativization does not add a second agent (and therefore a second VoiceP to introduce it). The causee is not interpreted as having any agentivity in the situation. The general pattern is that if the base verb only has an agent or patient, causativization adds whichever of these two is missing, and if you already have an agent and patient, causativization adds a recipient/beneficiary that is also interpreted as a causee. This is summarized in (70).

(70)	**base verb**	→	**verb with causative suffix**
	unaccusative (patient)	→	monotransitive (agent/patient)
	unergative (agent)	→	monotransitive (agent/patient)
	monotransitive (agent/patient)	→	ditransitive (agent/patient/recipient)

The conclusion that these causative suffixes do not create a verbal configuration with two agents is perhaps most obvious with causativized unaccusatives like *mófu*/*móóf* 'fall' (71), but it may initially be less obvious with unergatives and transitives. However, there are a few ways to show that the causee in these constructions is not an agent.

(71) a. Faat=be n-móóf.
stone=DEF 3-fall
'The stone fell.'
(YEK; elic. Oct. 6, 2021)

b. Na-móóf-∅ fatu.
3-fall-CAUS stone
'He/she/someone dropped a stone.'
(YEK; elic. Oct. 6, 2021)

The first piece of evidence comes from consultants' comments on meaning differences between suffixed and periphrastic causatives. The latter are formed in a manner similar to English, with a causer subject of *mo'e*/*moe'* 'make, do' and an accusative-marked causee that is interpreted as the subject of the embedded verb, as shown in (72). Regarding meaning differences, consultants YEK and NSK comment that the suffixed causative in (61b) describes a situation where I am holding up a bottle to your mouth and pouring the water in. On the other hand, they comment that periphrastic causative (72a) describes a situation where I am telling you or forcing you to drink water, but you are in direct control of the drinking. The same semantic contrast can be seen with *éku*/*éók* 'eat' (60b vs. 72b).

(72) a. Au **'-moe' koo** **m-iun** oe(l).
1SG.NOM 1SG-do 2SG.ACC 2SG-drink water
'I make you drink water.' (YEK/NSK; elic. Jul. 14, 2021)

b. Au **'-moe' koo** **m-éók** bolo.
1SG.NOM 1SG-do 2SG.ACC 2SG-eat cake
'I make you eat cake.' (YEK/NSK; elic. Oct. 20, 2021)

The same contrast can be observed with unergative verbs. For example, the sleeper object/causee of *tupa*/*tuup* 'sleep' causativized with *-b* in (56b) does not have any agentivity over the process (like a child being put to sleep by its mother). On the other hand, the causee of the periphrastic causative in (73a) is typically interpreted as being forced to sleep while retaining agentivity in the sense of direct control over the sleeping action described by the lexical verb. The same contrast can be seen with *aena*/*aen* 'run' (57b vs. 73b). It might seem odd that causativizing both unergatives and unaccusatives leads to monotransitive verbs with an agent and patient, but Legate (2014: 119) makes the same observation about Acehnese, another Austronesian language of Indonesia.

(73) a. Au **'-moe' koo** **m-tuup**.
1SG.NOM 1SG-do 2SG.ACC 2SG-sleep
'I make you sleep.' (YEK; elic. May 19, 2021)

b. Hoo ∅**-moe' kau** **'-aen** on ume.
2SG.NOM 2SG-do 1SG.ACC 1SG-run IRR.LOC house
'You make me run home.' (YEK/NSK; elic. Oct. 20, 2021)[5]

As noted by Tan (2023: 327), this property and others point to Uab Meto suffixed causatives being of the middle-sized vP-selecting or "verb-selecting" type in the typology of Pylkkänen (2008: 87), where a causative head selects for a root that has combined with a categorizing v. One piece of evidence that these suffixed causatives are not the (smaller) "root-selecting" type is that it is possible to have non-agentive adverbial modification of either the causing event or the caused event (Tan 2023: 328), as seen in (74) with *labah* 'quickly'. I assume that all verbs in Uab Meto feature roots that combine with a v that categorizes roots as verbs and adds event semantics (Alexiadou, Anagnostopoulou & Schäfer 2015: 50), in this case for the caused event. $v_{[+CAUS]}$ then combines with the resulting vP and contributes causing event semantics. This means that there are two events, either of which can be described by *labah*. If $v_{[+CAUS]}$ selected directly for a root, rather than a root and v that introduces the caused event, there would only be one v head introducing one event, and thus we would not expect this ambiguity of which event is being modified.

(74) Hiit ta-'-aena-' siin **labah**.
1PL.INC.NOM 1PL.INC-EPEN-run-CAUS 3PL quickly
'We make them quickly run.' OR 'We quickly make them run.'
(YEK; elic. Jan. 23, 2024, based on Tan 2023: 328)

Evidence that these suffixed causatives are not of the larger Voice selecting type (also called "phase selecting" by Pylkkänen (2008: 87)) comes from the impossibility of agent-oriented modification of the caused event/causee, like with instruments (Tan 2023: 330). If you have an instrumental modifier *néki 'sono'* 'with a spoon', this can only be interpreted as describing the causer in (75b-d), never the causee. However, if you use a periphrastic causative, as opposed to a suffixed one, then it is possible for the instrument to describe the causee (75e). This difference can be attributed to the idea that the suffixed causatives are monoclausal, and thus there is only one agent. Agent-oriented modifiers are only semantically compatible with modifying that one agent, the causer in Spec,VoiceP. The causee is introduced in a lower, non-agentive position. However, periphrastic causatives are biclausal, thus allowing for two agents to be introduced in separate VoicePs, and for agent-oriented modification to target the causee.

(75) a. Yoakim n-iun *kofe*.
Yoakim 3-drink coffee
'Yoakim drinks coffee.' (NSK; elic. Apr. 13, 2022)

b. Yoakim n-iun *kofe* n-éki 'sono'.
Yoakim 3-drink coffee 3-bring spoon
'Yoakim drinks coffee with a spoon.' (YEK & NSK; elic. Mar. 30, 2022)

c. Context: Nona uses a spoon to give Yoakim coffee to drink.

[5]The 2SG/1PL.EXC/2PL asyllabic Agr prefix *m-* is often null before [m]-initial stems (Steinhauer 1993: 135).

✓ Nona na-'-inu-t Yoakim *kofe* (n-éki 'sono').
Nona 3-EPEN-drink-CAUS Yoakim coffee (3-bring spoon)
'Nona gives Yoakim coffee to drink (with a spoon).'
(YEK & NSK; elic. Apr. 13, 2022)

d. Context: Nona gives Yoakim coffee, and Yoakim uses a spoon to drink it.
Nona na-'-inu-t Yoakim *kofe* (n-éki 'sono').
Nona 3-EPEN-drink-CAUS Yoakim coffee (3-bring spoon)
'Nona gives Yoakim coffee to drink (with a spoon).'
(YEK & NSK; elic. Apr. 13, 2022)

e. Context: Nona makes Yoakim drink coffee, and Yoakim uses a spoon to drink it.
✓ Nona n-moe' Yoakim n-iun *kofe* (n-éki 'sono').
Nona 3-do Yoakim 3-drink coffee (3-bring spoon)
'Nona makes Yoakim drink coffee (with a spoon).'
(YEK & NSK; elic. Apr. 13, 2022)

The examples in (75) demonstrate that this is a semantic issue, rather than an issue of verb agreement on the verb *éki*/*éék* 'bring'/'use'/'by means of', since all arguments are 3rd-person. The same pattern also holds when the arguments are 1st- and 2nd-person, providing morphological evidence that the instrumental modifier can only agree with an argument that can be interpreted as an agent (76a-b). Causees of suffixed causatives are not eligible (76c), but causees of periphrastic causatives are (76d).

(76) a. Au '-iun *kofe* ('-éki 'sono').
1SG.NOM 1SG-drink coffee (1SG-bring spoon)
'I drink coffee (with a spoon).' (YEK & NSK; elic. Mar. 30, 2022)

b. Context: I use a spoon to give you coffee to drink.
✓ Au 'u-'-inu-t koo *kofe* ('-éki 'sono').
1SG.NOM 1SG-EPEN-drink-CAUS.APPL 2SG.ACC coffee (1SG-bring spoon)
'I give you coffee to drink (with a spoon).' (YEK & NSK; elic. Mar. 30, 2022)

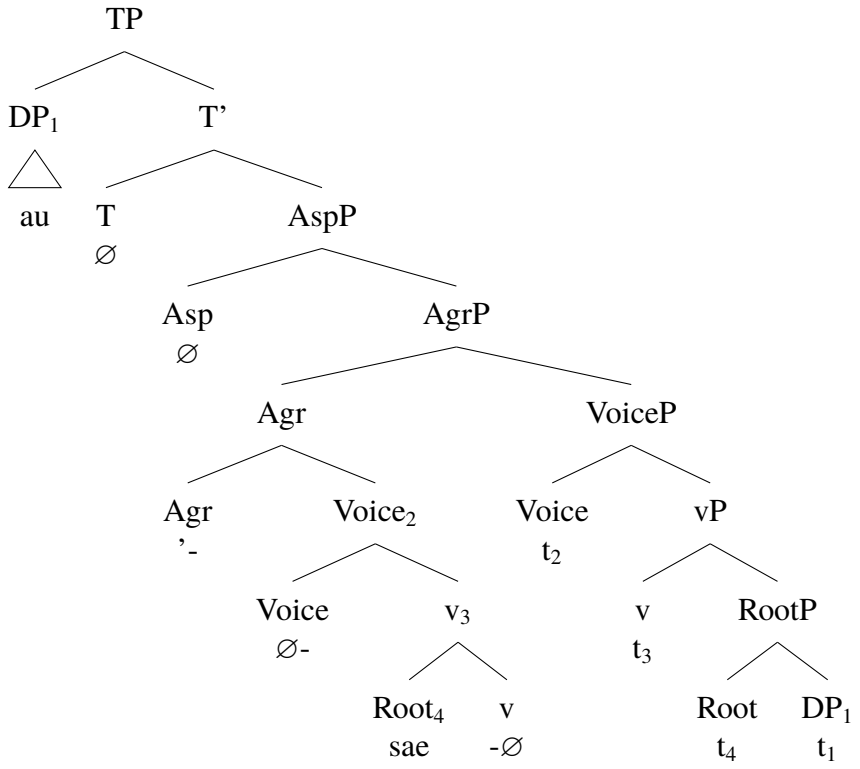
c. Context: No context OR I give you coffee, and you use a spoon to drink it.
* Au 'u-'-inu-t koo *kofe* ({'-/m-}éki 'sono').
1SG.NOM 1SG-EPEN-drink-CAUS.APPL 2SG.ACC coffee ({1SG-/2SG-}bring spoon)
'I give you coffee to drink (with a spoon).' (YEK & NSK; elic. Mar. 30, 2022)

d. Context: I make you drink coffee, and you use a spoon to drink it.
✓ Au '-moe' koo m-iun *kofe* (m-éki 'sono').
1SG.NOM 1SG-do 2SG.ACC 2SG-drink coffee (2SG-bring spoon)
'I make you drink coffee (with a spoon).' (YEK & NSK; elic. Mar. 30, 2022)

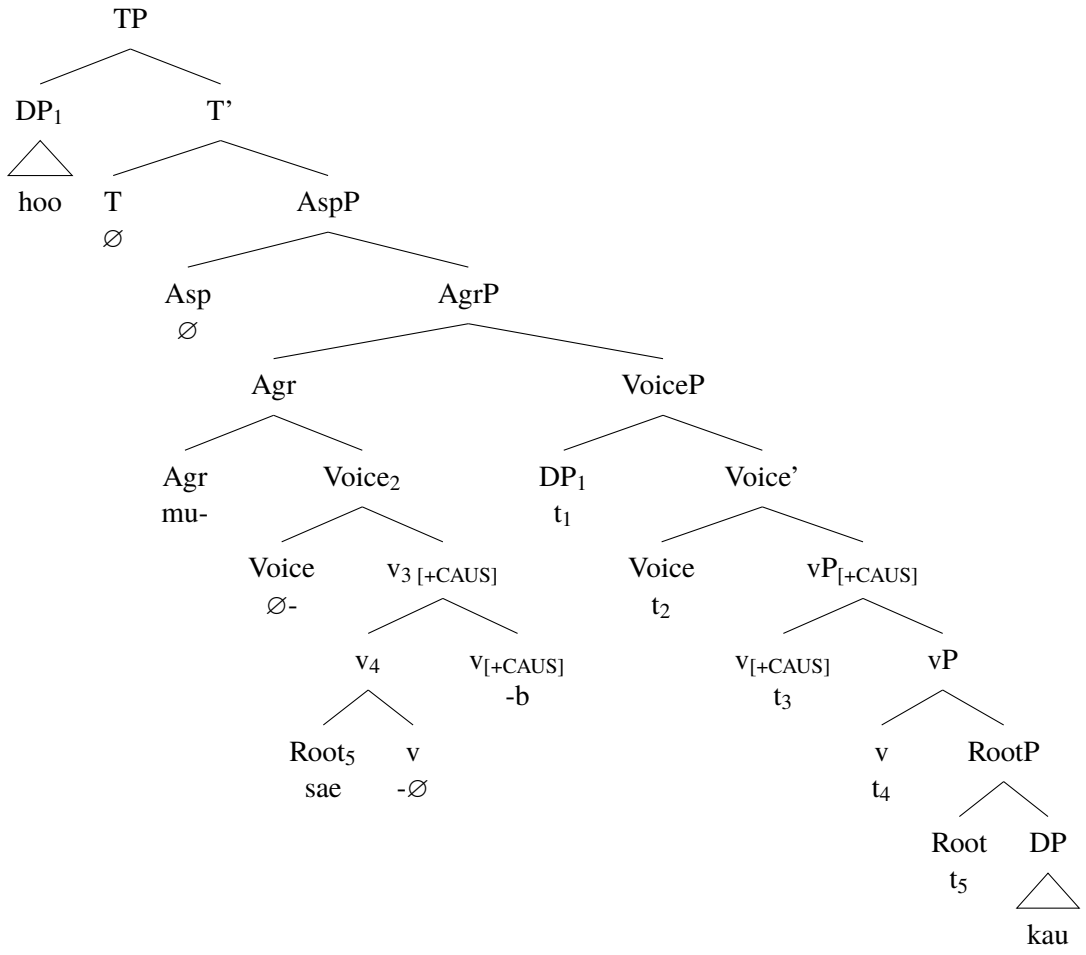
The properties discussed above suggest that $v_{[+CAUS]}$ selects for a vP complement; it does not embed a second agent. I assume that this complement vP is headed by the "default" v present in most

clauses to verbalize roots and add event semantics, or by $v_{[+BE]}$/$v_{[+HAVE]}$ in the case of denominal verbs. Under this assumption, Voice must be above $v_{[+CAUS]}$; there is no other possible place for it between the root and $v_{[+CAUS]}$. To illustrate this analysis, structures for a plain and causativized unaccusative are provided in (77) and (78). These provide structures for (52a) and (52b) respectively. Causativized unergatives like (57b) can be analyzed in a structurally identical way to causativized unaccusatives (78) despite having a distinct non-causativized structure.

(77)

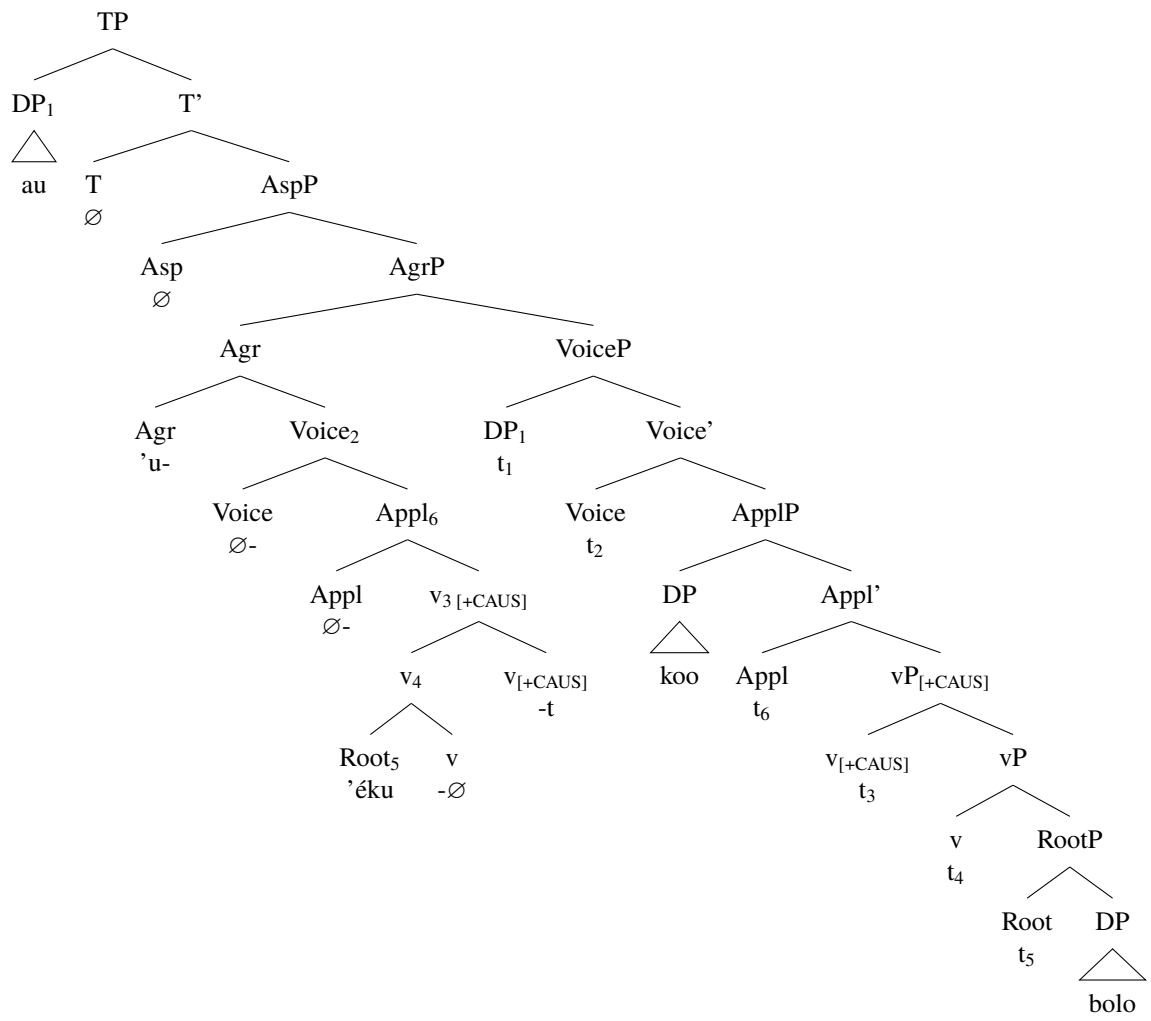


(78)



For causativized transitives, I propose that their causees are introduced in an applicative (Appl) head that sits between $v_{[+CAUS]}$ and Voice. The proposed structure of (60b) is given in (79). (79) is based on the structure provided by Legate (2014: 125) for a similar causativized transitive in Acehnese. The original, agentive argument of the non-causativized verb is introduced instead as a non-agentive causee below Voice. Spec,VoiceP is reserved for the causer, which is interpreted as the agent.

(79)



The discussion above shows that $v_{[+CAUS]}$ can take vP complements headed by "default" v. One might wonder at this point if $v_{[+CAUS]}$ can take vP complements headed by the other types of v in the language, namely $v_{[+BE]}$ and $v_{[+HAVE]}$. Indeed, it is possible to causativize denominal verbs, which means that $v_{[+CAUS]}$ can also take vP complements headed by verbs that are formed in their baseline uses by combining with $v_{[+BE]}/v_{[+HAVE]}$. For denominals that are formed with $v_{[+BE]}$ this process is straightforward. For example, the denominal *'ate/'aet* 'be a slave, servant' combines with $v_{[+BE]}$ to form an intransitive stative verb, and it can further combine with null $v_{[+CAUS]}$ to derive a transitive causativized verb meaning of 'enslave, put into servitude' (80a). For verbs that combine with $v_{[+HAVE]}$ there is an interesting catch. For example, *bua* 'gather' (from *bua'* 'clump'), combines with $v_{[+HAVE]}$ when intransitive *bua* (80b). It can then combine with the overt $v_{[+CAUS]}$ allomorph *-b* to form the transitive causativized *buab* 'gather (something)' (80c). However, recall from (35) and surrounding discussion in section 2.2.3 that $v_{[+HAVE]}$ surfaces as a conditioned allomorph of $v_{[+BE]}$ only when it is structurally adjacent to a Voice head that introduces an external argument ($Voice_{[D]}$). $v_{[+CAUS]}$ intervenes between $Voice_{[D]}$ and $v_{[+BE]}/v_{[+HAVE]}$, leading to the insertion of the

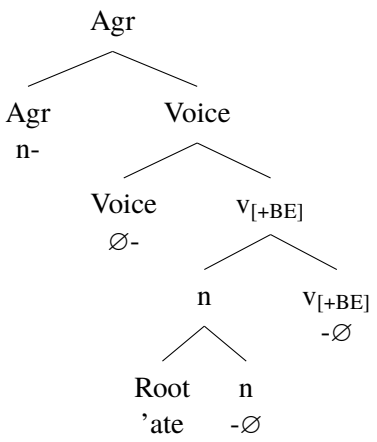
$v_{[+BE]}$ allomorph. This difference is schematized in (81) and (82).

(80) a. **n-'ate** vs. **na-'ate-∅**
3-servant 3-servant-CAUS
'be a servant' vs. 'put (someone) into servitude' (Tan 2023: 111)

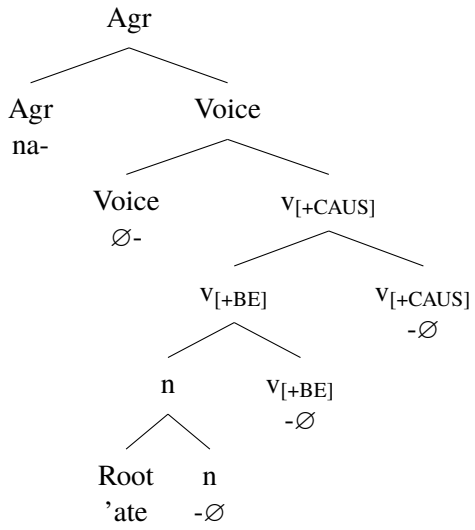
b. Hoe, aim he **ta-bua** he t-moe' hiit alat|a
hey 2PL.come IRR 1PL.INC-clump IRR 1PL.INC-do 1PL.INC.NOM custom|EPEN
m-bii=n hiit kuan.
3-RLS.LOC=DAT 1PL.INC.NOM village
'Hey, come gather so that we do our custom in our village.'
(KSF; AOZ2019-MON003, line 35)

c. **Na-bua-b**=e n-jael Oelneke.
3-clump-CAUS=3SG.ACC 3-become Oelneke
'It was gathered together to become Oelneke.' (YAF; AOZ2019-MON004, line 258)

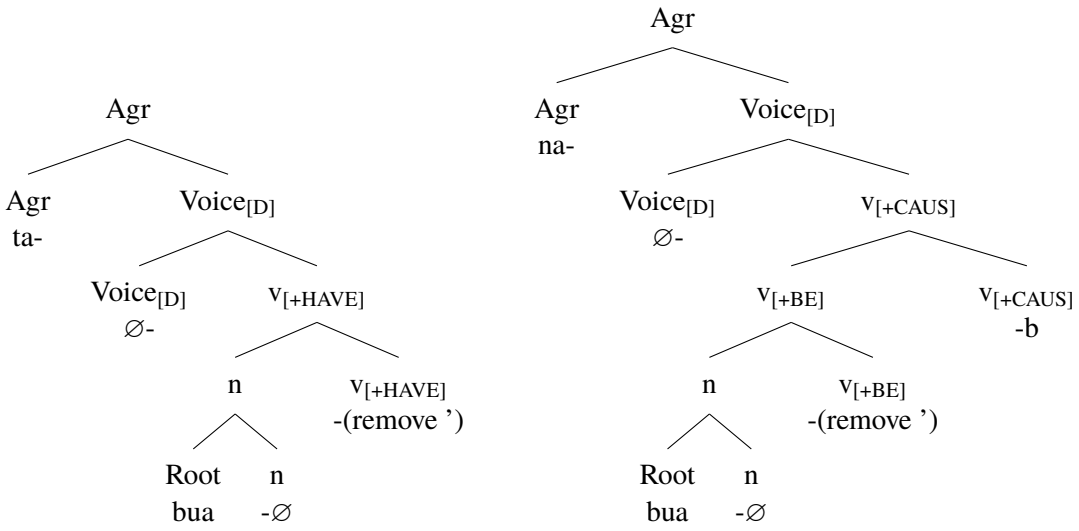
(81) a. Baseline $v_{[+BE]}$ denominal verb



b. Causativized $v_{[+BE]}$ denominal verb



(82) a. Baseline $v_{[+HAVE]}$ denominal verb[6] b. Causativized $v_{[+HAVE]}$ denominal verb



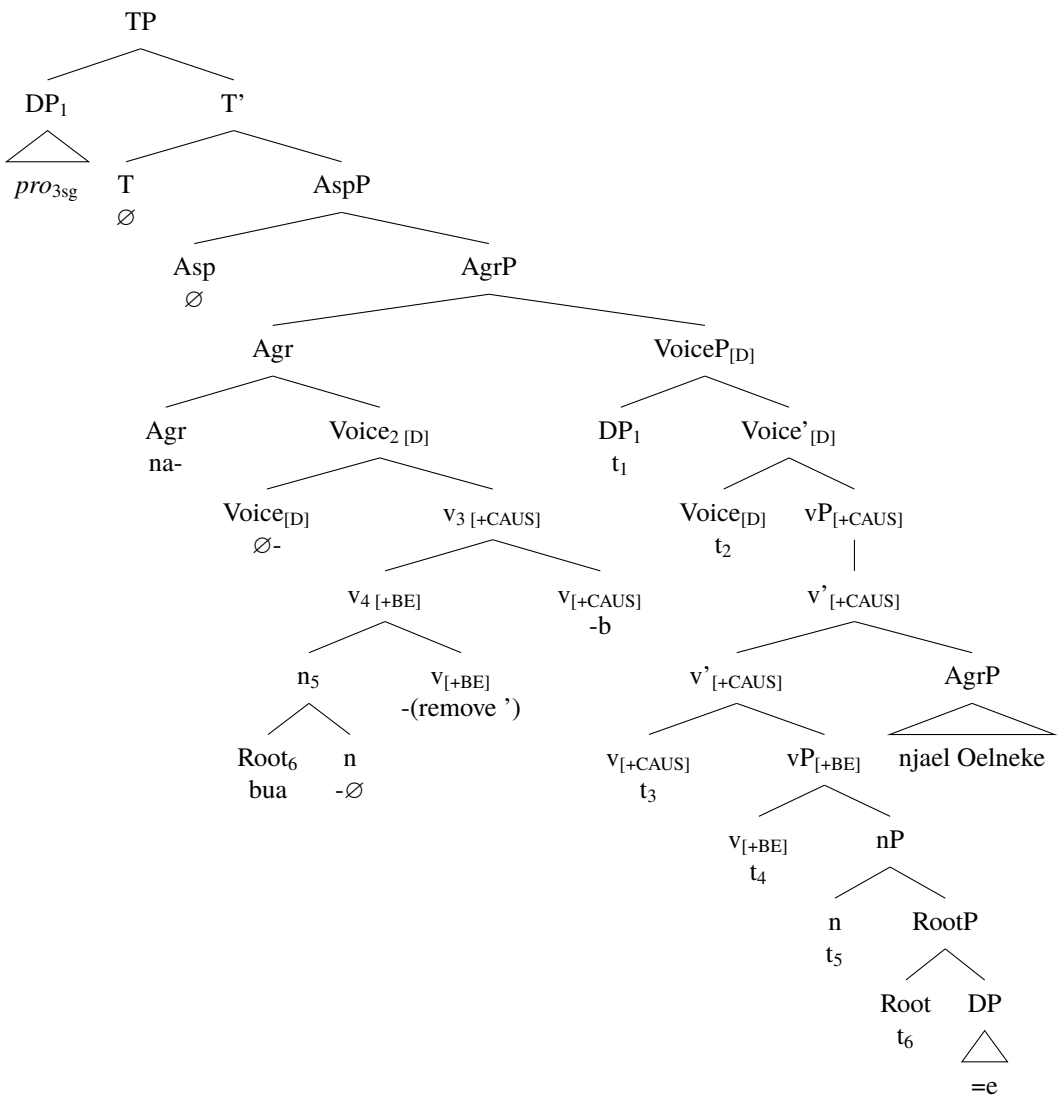
This shift to the $v_{[+BE]}$ allomorph under $v_{[+CAUS]}$ is desirable given that causativization in cases like (80c) leads to the addition of an internal argument, which is present in unaccusative denominals that combine with $v_{[+BE]}$ in all cases, like *ate/aet* (38a, 80a). In this case, the argument associated with the main event described by the verb is internal, rather than external as with $v_{[+HAVE]}$. The external argument is now associated with the causing event described by $v_{[+CAUS]}$. This change is also desirable for reasons that we will see in more detail in section 3.4; $v_{[+CAUS]}$ and $v_{[+HAVE]}$ are not Obliterated after Vocabulary Insertion, even when they have no clear phonological manifestation, while $v_{[+BE]}$ must Obliterate in the presence of $v_{[+CAUS]}$ in order to create adjacency between the root and $v_{[+CAUS]}$ for the lexical selection of $v_{[+CAUS]}$ allomorphs. The necessity of allowing this selection can be seen in the choice of -∅ by *'ate/'aet* (80a) rather than the default *-b*. Limiting this special Obliteration to one allomorph makes it easier to generalize about the process.

In light of all this discussion, a partial structure of (80c) is provided in (83)[7]. This section has shown that denominal causativized verbs behave like normal causativized verbs in taking syllabic agreement prefixes and selecting from the same set of $v_{[+CAUS]}$ allomorphs. Agreement and $v_{[+CAUS]}$ treat these two types of verbs identically.

[6]See section 2.2.3 for discussion of noun and verb pairs where the verb lacks the final consonant of the noun, and why this appears to be a process of subtractive morphology.

[7]It is unclear at this time how to treat the resultative clause *njael Oelneke* 'to become Oelneke' syntactically. For now, it is depicted as an adjunct of $v_{[+CAUS]}$.

(83)



2.3.3 The syntax of Appl

The Appl head posited in section 2.3.2 is always silent. It does not display any allomorphy, and it does not have any apparent effects on the allomorphy displayed by other parts of the verbal complex, but it has syntactic effects that will be discussed below.

I follow Pylkkänen (2008: 88) in assuming that $v_{[+CAUS]}$ adds causative event semantics but does not itself introduce the causee, and usually not the causer. This led to the postulation of Appl in section 2.3.2 to introduce the causees of causativized transitives, as shown in examples like (79). It was further shown that the causees of causativized transitives (as well as of other verbs in Uab Meto) are not interpreted as agents. On the other hand, the causers *are* interpreted as agents. Causers also control agreement and act as subjects, suggesting both that they are introduced in Spec,VoiceP and that they are the highest DP in the verbal complex. Appl must therefore be below Voice.

There is additional evidence that Appl is between Voice and $v_{[+CAUS]}$ that comes from the possibilities for sentences with non-agentive causers. In fact, not all causers are created equal. Agents can be interpreted as causers, but there can be PPs and DPs that directly name causers (or more precisely, causing events) without being agents. This distinction is manifested in English in terms of which entities can combine with verbs that participate in the causative alternation both as DP subjects and as PP adjuncts introduced by *from*. Causing events can do both (84a-b), but agents can only be DP subjects (84c-d). The examples in (84) are based on data in (Alexiadou, Anagnostopoulou & Schäfer 2015: 7-8).

(84) a. The storm broke the window.
b. The window broke from the storm.
c. The vandals broke the window.
d. * The window broke from the vandals.

I do not have any data to indicate whether PP causers are possible in Uab Meto. However, DP causers like *aenn=e* 'the wind' and *faat=be* 'the stone' are possible in lieu of DP agents, as shown in (85) with *sóé* 'open, release, pay' and (86) with *pe'a/pee'* 'break, shatter'. The (a) examples feature non-causatived verbs; the (b) examples show a canonical 1SG agent of causativized verbs; and the (c) examples show non-agentive causers of causativized verbs.

(85) a. Neem=besa=te **n-sóé** koo n-éék fauk=at, n-éék ne ...
day=one=SET 3-open 2SG.ACC 3-bring how.much=SET 3-bring FILL ...
'Every day they paid you with how much, with umm...'
(LTK; AOZ2019-MON011, line 62)

b. **Au 'u-sóé-n** nees=be.
1SG.NOM 1SG-open-CAUS door=DEF
'I opened the door.' (YEK; elic. Apr. 20, 2022)

c. Context: There was a storm, and there was wind.
✓ **Aenn=e na-sóé-n** nees=be.
wind=DEF 3-open-CAUS door=DEF
'The wind opened the door.' (YEK; elic. Apr. 20, 2022)

(86) a. Piik'=e **m-pee'**.
plate=DEF 3-break
'The plate broke.' (YEK & NSK; elic. Mar. 30, 2022)

b. **Au 'u-pe'a-'** pika'.
1SG.NOM 1SG-break-CAUS plate
'I broke the plate.' (YEK; elic. Mar. 30, 2022)

c. Context: There's a stone that's falling. The stone falls and hits the plate.
✓ **Faat=be na-pe'a-'** pika'.
stone=DEF 3-break-CAUS plate
'The stone broke the plate.' (YEK; elic. Mar. 30, 2022)

However, something curious happens in ditransitive causatives[8]. With causativized *éku*/*éók* 'eat' and *inu*/*iun* 'drink', agent subjects are possible (87a, 88a), but causers like *uul upu* '(the) storm' are not (87b, 88b), even in semantically plausible situations like a storm causing a situation of hardship, like having to drink old coffee or eat old cake. In order to express this sort of meaning, periphrastic causatives with monotransitive main verbs need to be used (87c, 88c).

(87) a. **Yoakim** na-'-éku-t kau bolo mnaa'.
Yoakim 3-EPEN-eat-CAUS 1SG.ACC cake old
'Yoakim made me eat old cake.' (YEK & NSK; elic. May 25, 2022)

Context for (b) and (c): There was a storm and a flood. Because of this, I cannot buy new cake. I have to eat old cake.

b. * **Uul upu** na-'-éku-t kau bolo mnaa'.
rain storm 3-EPEN-eat-CAUS 1SG.ACC cake old
Intended: 'The storm made me eat old cake.' (YEK & NSK; elic. May 25, 2022)

c. ✓ **Uul upu** n-moe' kau '-éók bolo mnaa'.
rain storm 3-do 1SG.ACC 1SG-eat cake old
'The storm made me eat old cake.' (YEK & NSK; elic. May 25, 2022)

(88) a. **Nona** na-'-inu-t Yoakim *kofe.*
Nona 3-EPEN-drink-CAUS Yoakim coffee
'Nona gives Yoakim coffee to drink.' (YEK & NSK; elic. Apr. 6, 2022)

Context for (b) and (c): There was a storm and a flood. Because of this, you cannot buy new coffee. You have to drink old coffee.

b. * **Uul upu** na-'-inu-t koo *kofe* mnaa'.
rain storm 3-EPEN-drink-CAUS 2SG.ACC coffee old
Intended: 'The storm made you drink old coffee.' (YEK & NSK; elic. Apr. 13, 2022)

c. ✓ **Uul upu** n-moe' kiit t-iun *kofe* mnaa'.
rain storm 3-do 1PL.INC.ACC 1PL.INC-drink coffee old
'The storm made us drink old coffee.' (YEK & NSK; elic. Apr. 13, 2022)

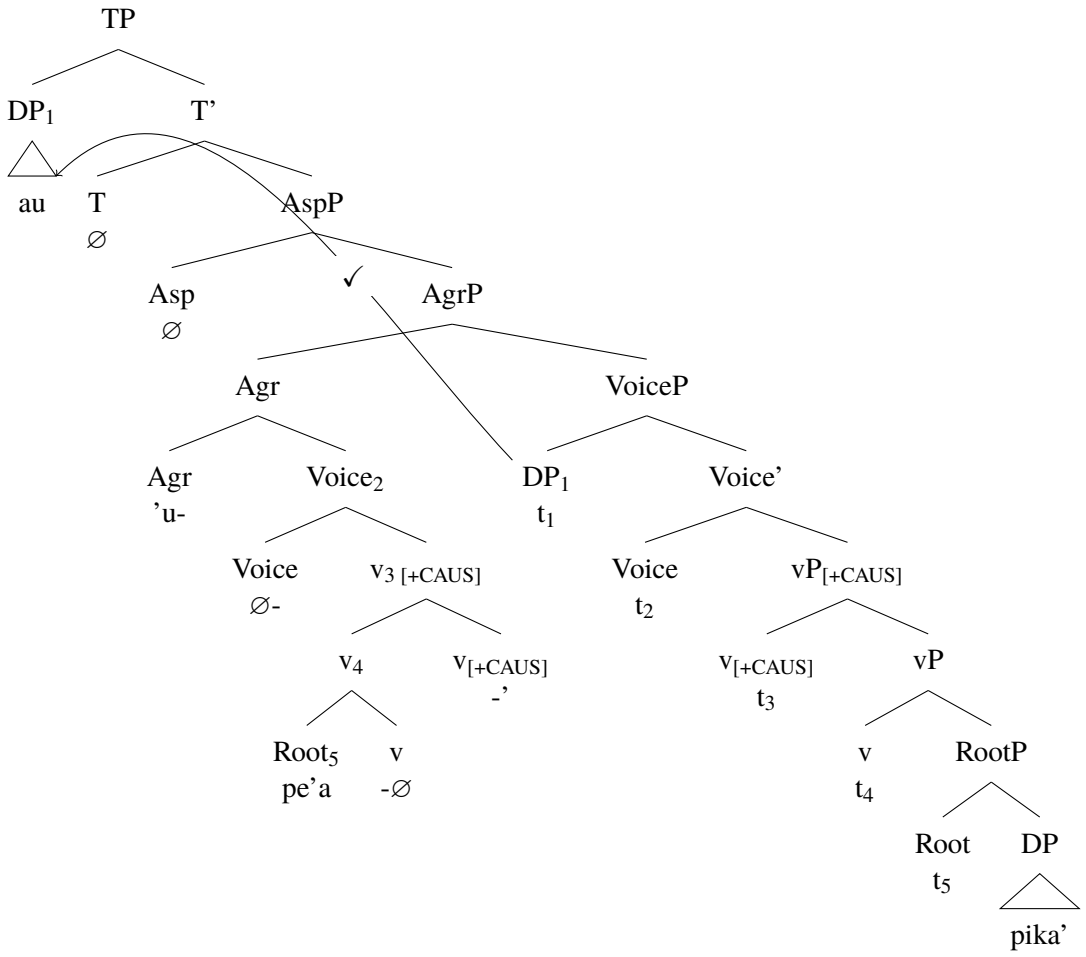
The inability of these ditransitive causatives to have non-agentive causer subjects can be attributed to the positions in which causers and causees can be introduced. Alexiadou, Anagnostopoulou & Schäfer (2015: 9) analyze PP causers like *from the storm* in (84b) as being introduced as adjuncts within $vP_{[+CAUS]}$. They analyze DP causes like *the storm* in (84a) as being introduced in Spec,VoiceP and being equated to the causing event via a special form of Event Identification (Pylkkänen 2008: 93). True agents are always introduced in Spec,VoiceP and related as agents to the event via the typical form of Event Identification (Kratzer 1996). However, if one were to divert a bit from

[8]I define "ditransitive causatives" as verbs that are ditransitive when causativized. These are always monotransitive as base verbs. By extension, I define "monotransitive causatives" as verbs that are monotransitive when causativized. These are mostly intransitive as base verbs but are sometimes monotransitive (59, 85). Examples like these provide evidence that $v_{[+CAUS]}$ adds causative event semantics but does not introduce an argument.

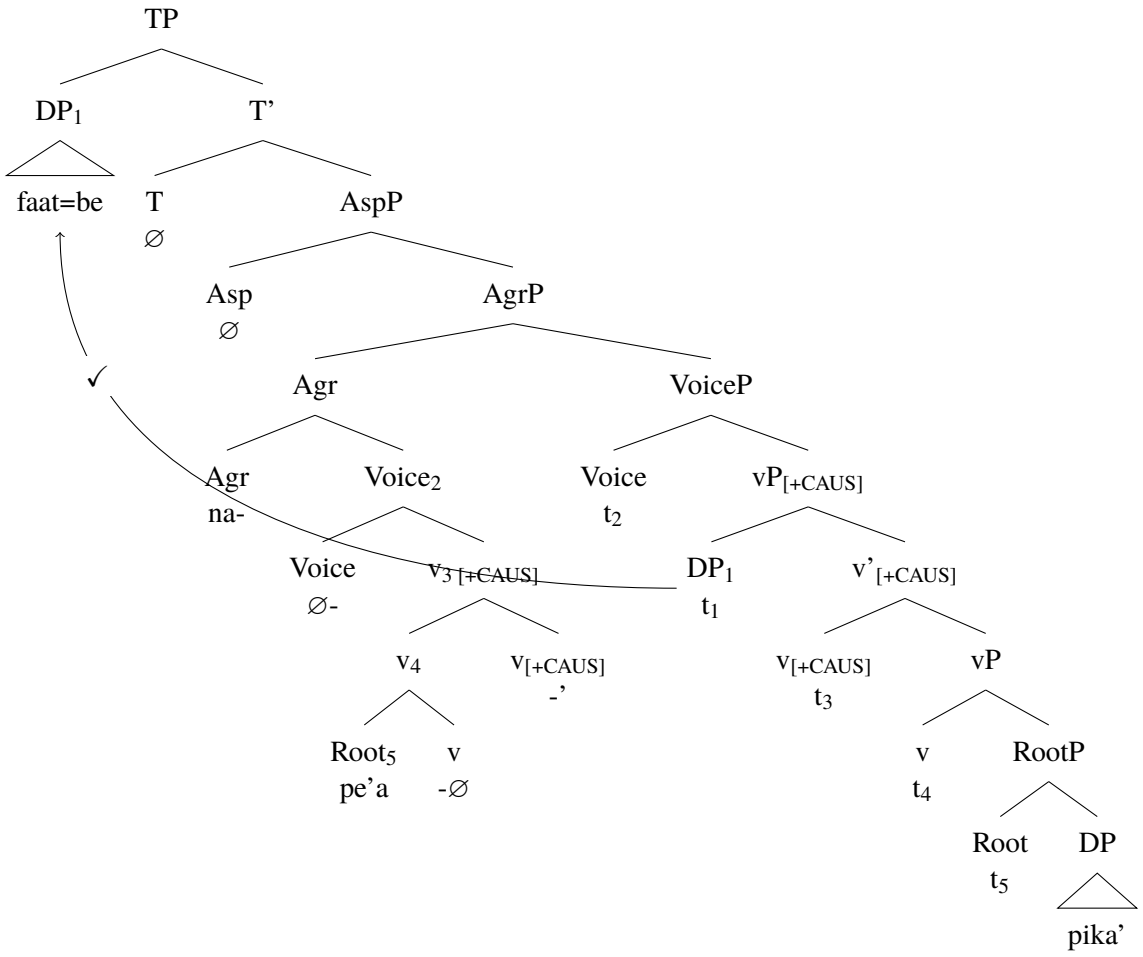
Alexiadou, Anagnostopoulou & Schäfer (2015) and assume, loosely following Pesetsky (1995), that non-agentive causers are always introduced in $vP_{[+CAUS]}$ in Uab Meto, then this difference between monotransitive and ditransitive causativized verbs could be accounted for.

One aspect of the principle of Relativized Minimality (Rizzi 1990) is that for processes like A/Ā-movement, the probe on T, C, or whatever head finds the highest eligible argument in its c-command domain and targets that one for movement. Applying this principle to the data here, both agentive causers introduced in Spec,VoiceP and non-agentive causers introduced in Spec,$vP_{[+CAUS]}$ are the highest DPs in the clause when there is no causee in Spec,ApplP, as in the case in monotransitive causatives. Thus, T targets both types of causer DP for movement to Spec,TP. This is shown in (89), which depicts the subject of (86b) and (90), which depicts the subject of (86c).

(89)

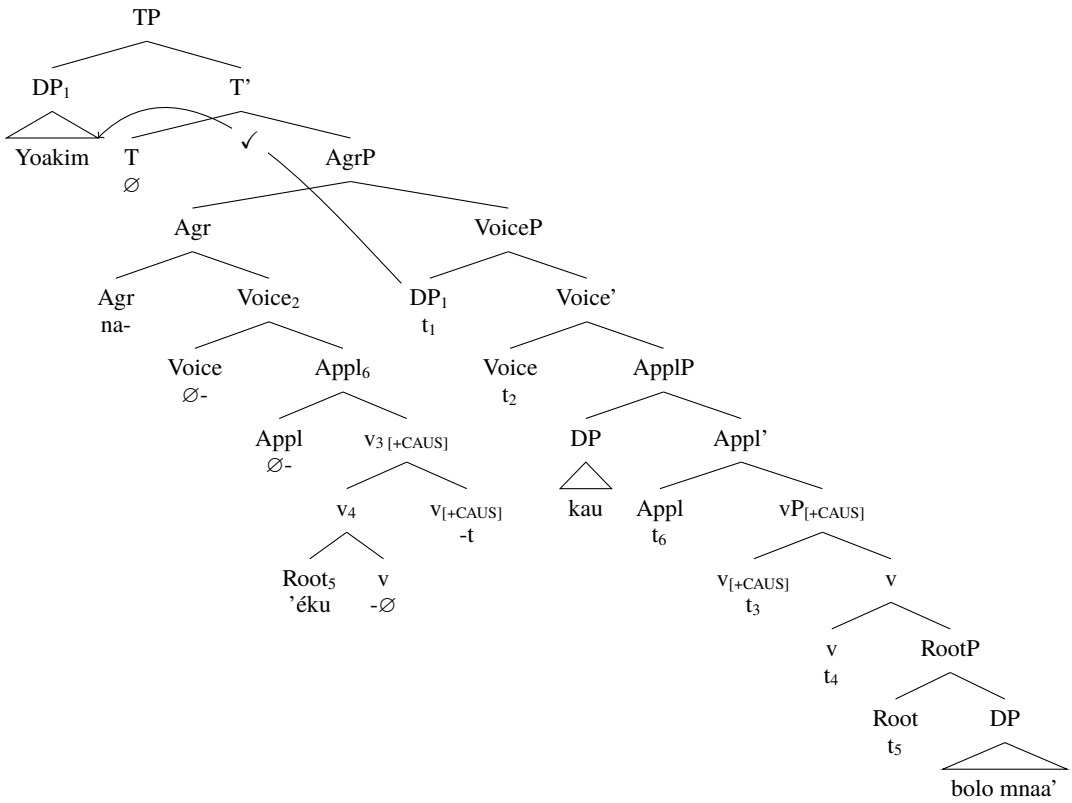


(90)



In ditransitive causatives, an Appl head above $v_{[+CAUS]}$ introduces the causee. Under this assumption, agent subjects are possible because they are introduced in Spec,VoiceP, which asymmetrically c-commands Spec,ApplP. An agent is the highest DP and can be targeted by T for movement to Spec,TP, as shown in (91) for the agent in (87a). However, a causer introduced in Spec,$vP_{[+CAUS]}$ is lower than a causee introduced in Spec,ApplP, so it cannot raise to Spec,TP over the causee. Spec,ApplP asymmetrically c-commands Spec,$vP_{[+CAUS]}$, and therefore movement of a DP in Spec,$vP_{[+CAUS]}$ would be a violation of Relativized Minimality. This is illustrated in (92) for the causer in (87b).

(91)


TP
DP1
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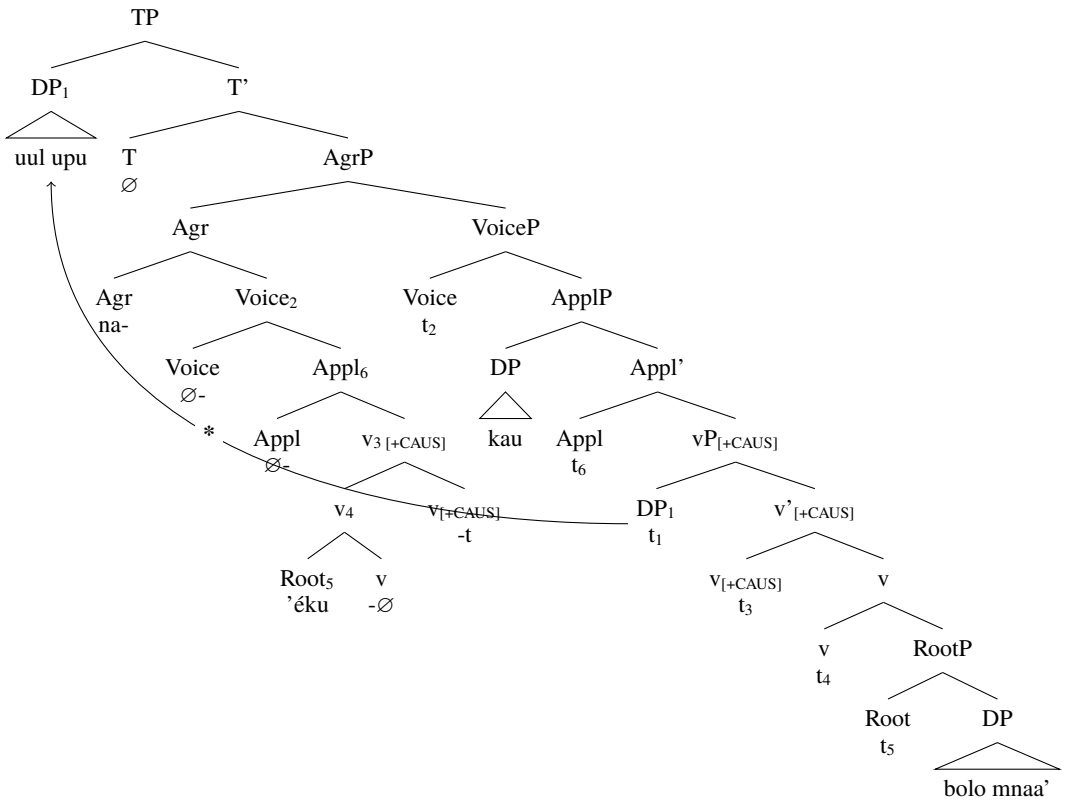
Yoakim
T
∅
✓
AgrP
Agr
VoiceP
Agr
na-
Voice2
DP1
t1
Voice'
Voice
∅-
Appl6
Voice
t2
ApplP
Appl
∅-
v3 [+CAUS]
DP
Appl'
v4
v[+CAUS]
-t
kau
Appl
t6
vP[+CAUS]
Root5
'éku
v
-∅
v[+CAUS]
t3
v
v
t4
RootP
Root
t5
DP
bolo mnaa'

(92)



Periphrastic causatives like those in (87c) and (88c) differ from suffixed causatives in allowing both causer and agent subjects. Periphrastic causatives avoid violating Relativized Minimality, because they are biclausal while suffixed causatives are monoclausal. Evidence for this includes 1. periphrastic causatives can be modified with conflicting time adverbials, while suffixed causatives cannot (93); 2. periphrastic causatives can be doubly negated, while suffixed causatives cannot (94); and 3. both the causer and causee can receive an agentive interpretation in periphrastic causatives, while only the causer can receive an agentive interpretation in suffixed causatives (60-76). This biclausality of periphrastic causatives allows for there to be two vPs and two VoicePs. This means that a VoiceP introducing the causee can be embedded below a matrix vP introducing the causer. Appl is not needed to introduce the causee, thus creating a configuration where the causer is always higher, regardless of whether it is also an agent.

(93) a. Afi ina n-moe' koo he neno ii m-iun *kofe*.
yesterday 3SG.NOM 3-do 2SG.ACC IRR day DEM.PROX 2SG-drink coffee
'Yesterday I made you drink coffee today.' (YEK & NSK; elic. Mar. 9, 2022)

b. * Afi {neno ii} au 'u-'-inu-t koo *kofe* {neno
yesterday {day DEM.PROX} 1SG.NOM 1SG-EPEN-drink-CAUS 2SG.ACC coffee {day
ii}.
DEM.PROX}

Intended: 'Yesterday I gave you coffee to drink today.'
(YEK & NSK; elic. Mar. 9, 2022)

(94) a. Iin ka= n-moe' koo =fa ka= m-iun =fa *kofe*.
3SG.NOM NEG= 3-do 2SG.ACC =NEG NEG= 2SG-drink =NEG coffee
'He didn't make you not drink coffee.' (YEK & NSK; elic. Mar. 9, 2022)

b. Au ka= (*ka=) 'u-'-inu-t koo (*=fa) =fa *kofe*.
1SG.NOM NEG= (*NEG=) 1SG-EPEN-drink-CAUS 2SG.ACC (*=NEG) =NEG coffee
'I didn't (*not) give you coffee to drink.' (YEK & NSK; elic. Mar. 9, 2022)

The precise syntax of biclausal structures in Uab Meto, including periphrastic causatives, remains unresolved. For now, I follow Tan (2023: 73-75) in positing that in periphrastic causatives, the matrix verb *mo'e/moe'* 'make, do' embeds a clause that is at least large enough to allow negation (94a) and some TAM marking, such as irrealis *he* (93a, 95)[9]. In section 4.2, I analyze *he* as a T head, suggesting that periphrastic causatives embed at least a TP. Given this, a structure for ta periphrastic causative with the matrix agent *Nona* in (88a) is provided in (96)[10], and a structure for the periphrastic causative with a matrix non-agentive causer in (88c) is provided in (97).

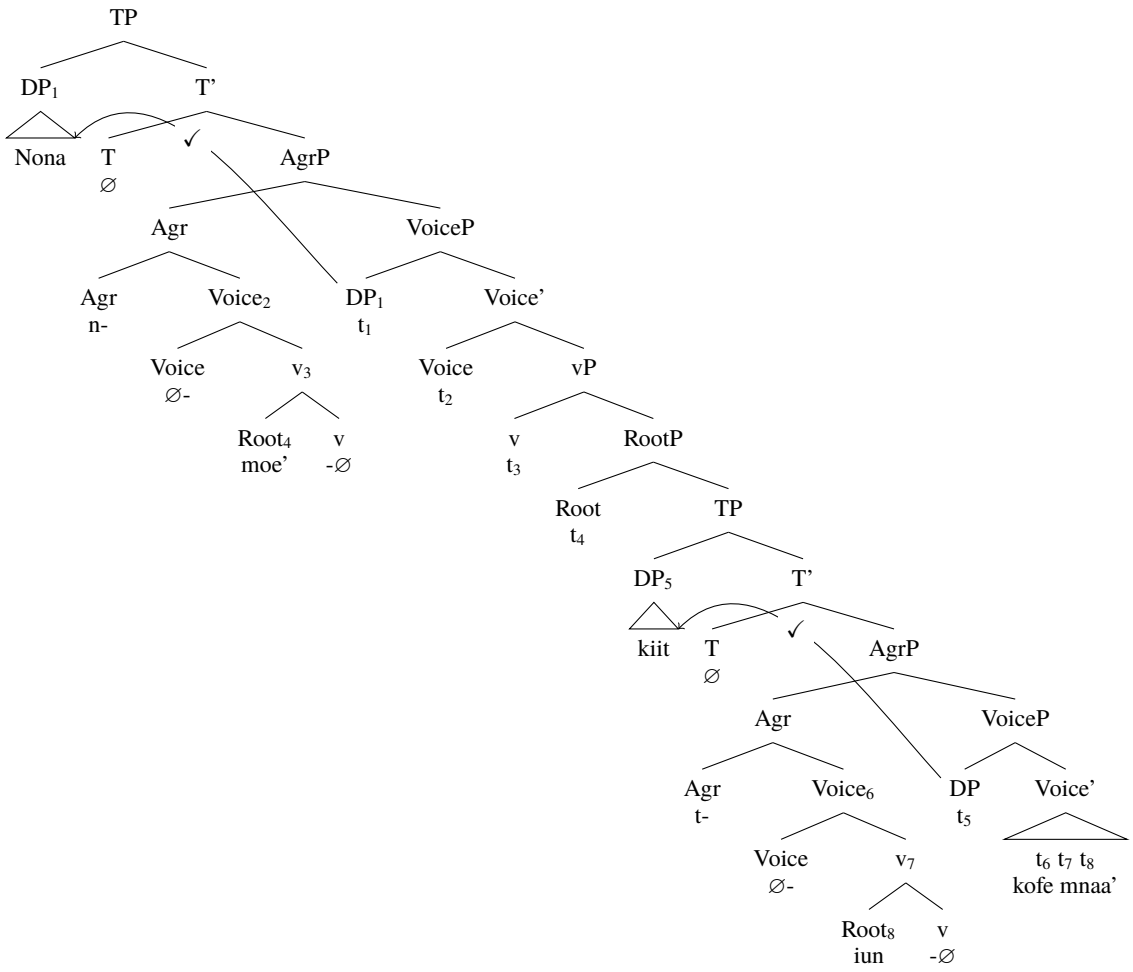
(95) Au '-moe'=le (**he**) na-meen.
1SG.NOM 1SG-do=3SG.ACC (IRR) 3-sickness
'I make him/her sick.' (YEK/NSK; elic. Sep. 29, 2021)

[9]This embedded clause can optionally include an embedded nominative subject coindexed with the accusative causee (1), though this may be a distinct, larger embedded structure, given the small translational difference.

(1) Au '-moe'=le **he iin** na-meen.
1SG.NOM 1SG-do=3SG.ACC IRR 3SG.NOM 3-sickness
'I make him so that he is sick.' (YEK/NSK; elic. Sep. 29, 2021)

[10]This sentence is not given in a full example. This tree is given as a sample derivation to demonstrate how the structure of (97) would differ if the matrix subject were an agent instead of causer.

(96)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VoiceP
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Voice2
DP1
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Voice'
Voice
∅-
v3
Voice
t2
vP
Root4
moe'
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-∅
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RootP
Root
t4
TP
DP5
T'
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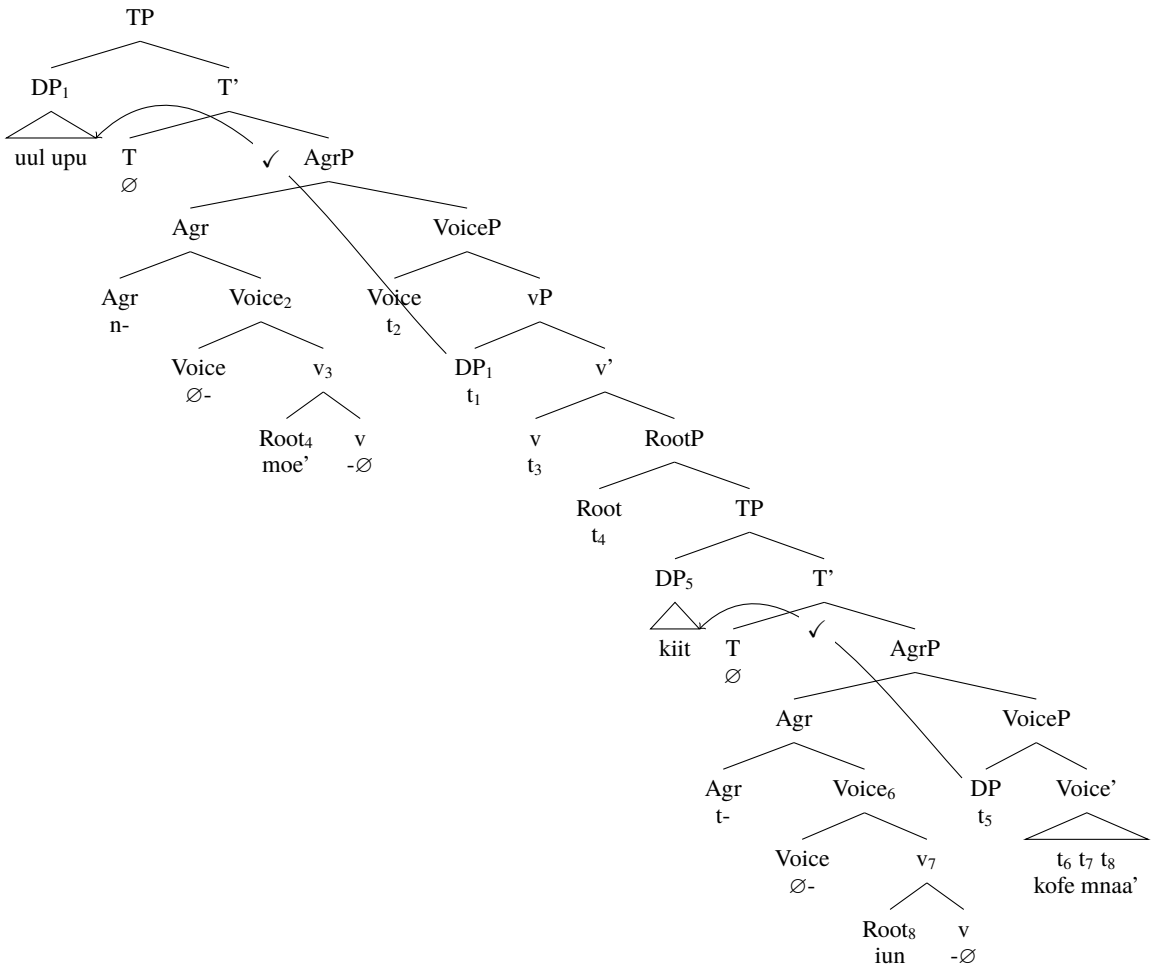
(97)



In fact, it is possible to have a causer subject, causee, and theme all within a suffixed causative construction, but only when the causee is introduced by the root, below $v_{[+CAUS]}$, rather than by Appl. Another way to express a meaning like the one in (87b,c) is to use the verb *hao* 'feed', which tolerates both agent (98a) and causer (98b) subjects when causativized.

(98) a. **Au** 'u-hao-∅ koo mna-ha-∅ mnaa'.
1SG.NOM 1SG-feed-CAUS 2SG.ACC NMLZ-eat-NMLZ old
'I feed you old food.' (YEK; elic. Apr. 6, 2022)

b. Context: There was a storm and a flood. Because of this, you cannot buy new food. You have to eat old food.

✓ **Uul upu** na-hao-∅ koo mna-ha-∅ mnaa'.
rain storm 3-feed-CAUS 2SG.ACC NMLZ-eat-NMLZ old
'The storm made you eat old food.' (YEK; elic. Apr. 6, 2022)

hao 'feed' is causativized in (98). Evidence for this includes the fact that there is a monotranstive use of *hao* featuring just an agent and a recipient that takes an asyllabic agreement prefix (99a);

recall from section 2.3.1 that verbs that take asyllabic (C-) prefixes in their base form switch to syllabic (CV-) prefixes when causativized. Furthermore, it is possible to causativize *hao* overtly with *-b* (99b). In this case there is an agent, a recipient, and a patient.

(99) a. Ina n-hao Tyler.
3SG.NOM 3-feed Tyler
'He/She feeds Tyler.' (SRB/YFB/YEK/NSK; elic. Jun. 27, 2022)

b. Iin na-hao-b Tyler sisi.
3SG.NOM 3-feed-CAUS Tyler meat
'He/She feeds Tyler meat.' (SRB/YFB/YEK/NSK; elic. Jun. 27, 2022)

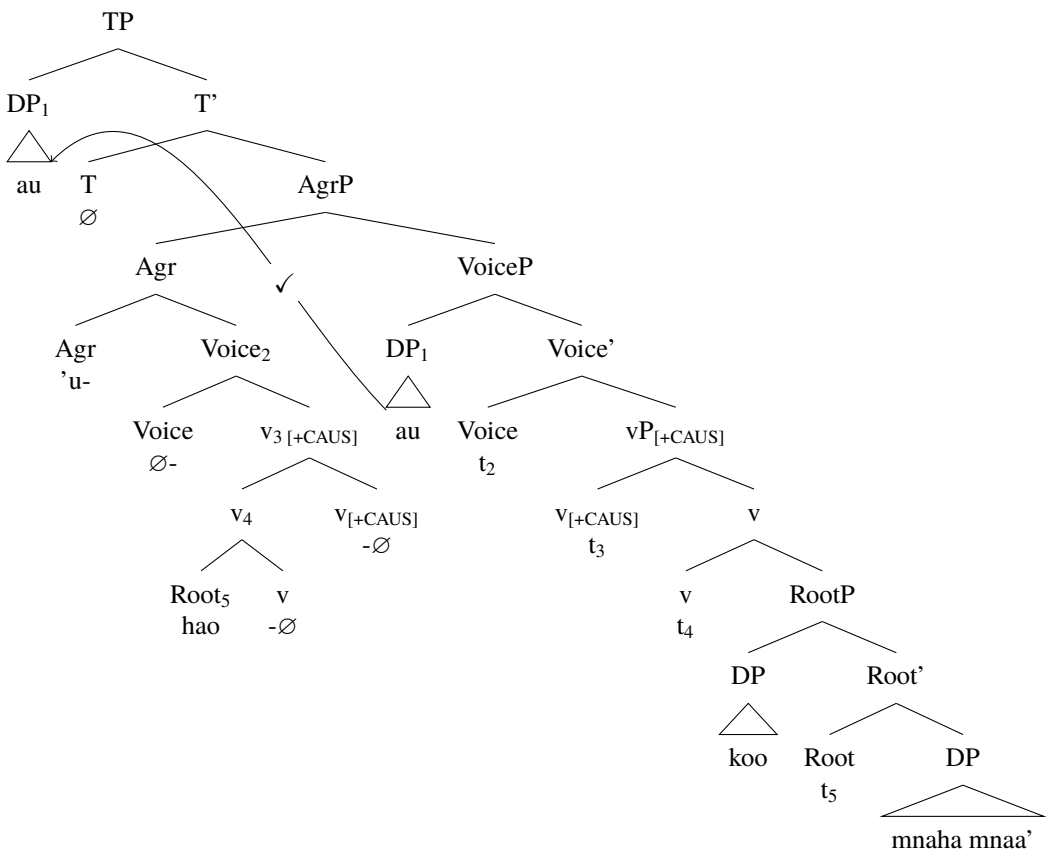
An important difference between *hao* 'feed' and the other causativized verbs that we have seen concerns which argument is added by causativization. Under the assumption that roots can select for their own arguments (Harley 2014), the root *hao* 'feed' in its non-causativized, baseline use selects for a recipient, and causativization modifies the semantics to allow for a patient. To further illustrate this point, in a periphrastic causative (100) meant to express the same idea as (98b), the causer is associated with the matrix verb *mo'e/moe'* 'make, do', leaving the embedded verb to introduce the eater agent and food patient. *hao* does not introduce patients unless morphologically causativized, so it is incompatible with this configuration. A different verb root *ha/ah* 'eat' must be used instead.

(100) Context: There was a storm and a flood. Because of this, you cannot buy new food. You have to eat old food.

✓ **Uul upu** n-moe' koo mu-ah mna-ha-∅ mnaa'.
rain storm 3-do 2SG.ACC 2SG-eat NMLZ-eat-NMLZ old
'The storm made you eat old food.' (YEK; elic. Apr. 6, 2022)

In light of all this, proposed structures for (98a) and (98b) are provided in (101) and (102) respectively. These structures are very similar to the one for inherent ditransitives with *fee* 'give' (30), but with the addition of $v_{[+CAUS]}$ to derive the ditransitivity. This structure maintains the general assumption that indirect objects are higher than direct objects in Uab Meto. Because the verb root introduces the recipient, it must also introduce the patient. Thus, Appl is not needed, and one avoids a configuration where a causee introduced by Appl is higher than a non-agentive causer introduced by $v_{[+CAUS]}$. The result is that both agentive and non-agentive causers are possible, because both are the highest DP in T's c-command domain in their respective sentences, and thus both are eligible for movement.

(101)


TP
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v3 [+CAUS]
au
Voice
t2
vP[+CAUS]
v4
v[+CAUS]
-∅
v[+CAUS]
t3
v
Root5
hao
v
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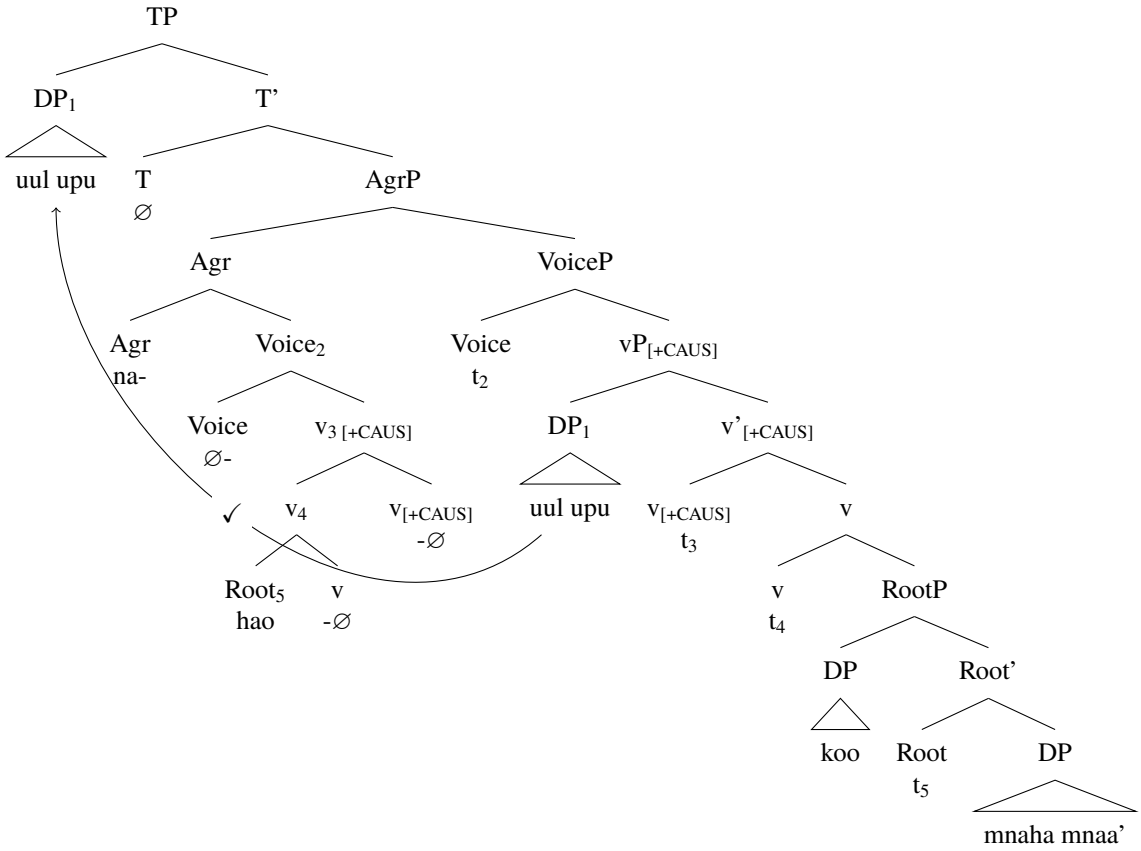
t4
RootP
DP
Root'
koo
Root
t5
DP
mnaha mnaa'

(102)



These data show that causers and causees can be introduced in distinct positions. Agentive causers are introduced in Spec,VoiceP, which is above Appl, and non-agentive causers of causative events are introduced in Spec,$vP_{[+CAUS]}$, which is below Appl. Non-agentive causers of main events are introduced in Spec,vP, which is also below Appl. Causees can be introduced in Appl, in an embedded clause, or in some cases by the verb root. Agentive causers are higher than every position where causees are introduced, so they are always possible as subjects. However, in order for non-agentive causers to be able to become subjects, one must choose a configuration in which the causee is not introduced above it in Appl. In these cases the causee must be introduced by the root, as in some suffixed causatives, or embedded, as in periphrastic causatives. These patterns allow us to place Appl above $v_{[+CAUS]}$ and below Voice.

2.3.4 Section summary

This subsection has discussed the morphology and syntax of $v_{[+CAUS]}$ and Appl. Appl is always null, while $v_{[+CAUS]}$ has several, lexically conditioned allomorphs: *-'*, *-b*, *-n*, *-∅*, and *-t*. Different pieces of evidence converge to indicate that among intermediate projections in the verbal complex, "default" $v/v_{[+BE]}/v_{[+HAVE]}$ is the lowest, followed by $v_{[+CAUS]}$, then Appl, and then Voice. Adding in what we know about the root and denominal verbs, we have arrived at the hierarchy of Voice >

Appl (when present) > $v_{[+CAUS]}$ (when present) > other v > n (when present) > Root. Two parts of the verbal complex remain to be discussed, Voice and Agr.

2.4 Voice

We now move into the higher part of the verbal complex. This section will discuss the different Voice heads present in Uab Meto. There are at least three different Voice heads: "default" Voice, stative *m(a)-*, and deobjective *ma-*. This section establishes the existence of these Voice heads and discusses their syntax, semantics, and effects on agreement-prefix allomorphy.

2.4.1 "Default" Voice

The first Voice head is "default" Voice; from a syntactic standpoint it could also be called "active" Voice. This Voice head is always null, and I assume that it is present in all verbs that do not have either of the overt alternatives, namely stative *m(a)-* and deobjective *ma-*. This null Voice head can either introduce an external argument or not. If this Voice head introduces an external argument, this argument is typically interpreted as an agent, and it is related as such to the event introduced by v and the root via Event Identification (Kratzer 1996: 122). We will see in section 4.3.3 that when "default" Voice introduces an external argument, it also has the ability to assign accusative case to an object. If this Voice head does not introduce an external argument, such as with unaccusative verbs, then it acts as expletive Voice, which does not contribute anything semantically but is nevertheless present syntactically (Alexiadou, Anagnostopoulou & Schäfer 2015: 108). This Voice head does not assign accusative case when it does not introduce an external argument.

Following Tan (2023), one could notate these variants of the default Voice head as $\text{Voice}_{[D]}$ (introduces the external argument in Spec,VoiceP) and $\text{Voice}_{[-D]}$ (does not introduce an external argument). Agreement-prefix allomorphy can reference this distinction, albeit indirectly. Recall from (35) in section 2.2.3 that $v_{[+HAVE]}$ is conditioned by the presence of a Voice head that introduces an external argument. $v_{[+HAVE]}$ conditions syllabic Agr prefixes, but in the absence of $v_{[+HAVE]}$ (or $v_{[+CAUS]}$), $\text{Voice}_{[D]}$ does not independently condition syllabic or asyllabic Agr. To illustrate this point, one can see trees with $\text{Voice}_{[D]}$ in (30), (41), and (78) and trees with $\text{Voice}_{[-D]}$ in (39) and (77). The presence of an external argument and $\text{Voice}_{[D]}$ is not sufficient to condition syllabic Agr.

At least to me, there is a clear intuition that despite variation in the introduction of an external argument and the types of v with which Voice can combine, there is only one active or default Voice head in the morphosyntactic sense. One can account for this variation in function with an allosemy analysis along the lines of the entries in (103), which are based on the entries in (37) from Myler (2016: 255). In an active clause, the alloseme in (103a) is used for verbs that describe an action and need to associate an agent with it. The allosemes in (103a-b) are instances of $\text{Voice}_{[D]}$ that condition and thus combines with $v_{[+HAVE]}$. $v_{[+HAVE]}$ is conditioned by any Voice head that introduces an external argument. The alloseme in (103c) is a semantically inert identify function. It combines with unaccusative verbs, including those that feature $v_{[+BE]}$. See section 2.2.3 for more discussion of this allosemy and its relation to $v_{[+BE]}$/$v_{[+HAVE]}$.

(103) a. [[Default Voice]] $\longleftrightarrow$ $\lambda x_e.\lambda e_s$.Agent(x,e) / _ (agentive, dynamic event)
b. [[Default Voice]] $\longleftrightarrow$ $\lambda x_e.\lambda e_s$.Holder(x,e) / _ (stative eventuality)
c. [[Default Voice]] $\longleftrightarrow$ λx.x / _ elsewhere (based on Myler 2016: 255)

2.4.2 Stative *m(a)-*

The second Voice head is stative *m(a)-*. It could be characterized as a type of "passive" Voice head from a syntactic standpoint. (104a-b) shows a basic active/stative pair with *'ipu/'iup* 'break, snap'. In the stative sentence (104b), the external argument is suppressed, and agreement is with the patient. That this is true agreement with a subject and not default 3rd person agreement possibly alongside topicalization is shown via examples like (104c-d). Notably, the presence of *m(a)-* also causes a change to syllabic Agr prefixes, but this is likely because it creates a CC-initial stem, all of which condition syllabic Agr, regardless of morphology (58, 155).

(104) a. Au ∅-'iup hau toe-f.
1SG.NOM 1SG-break tree branch-INAL
'I broke a tree branch.'
(YEK; elic. Sep. 15, 2021)[11]

b. Hau toe-f=e na-**m-**'iup.
tree branch-INAL=DEF 3-STAT-break
'The tree branch was broken.'
(YEK; elic. Sep. 15, 2021)

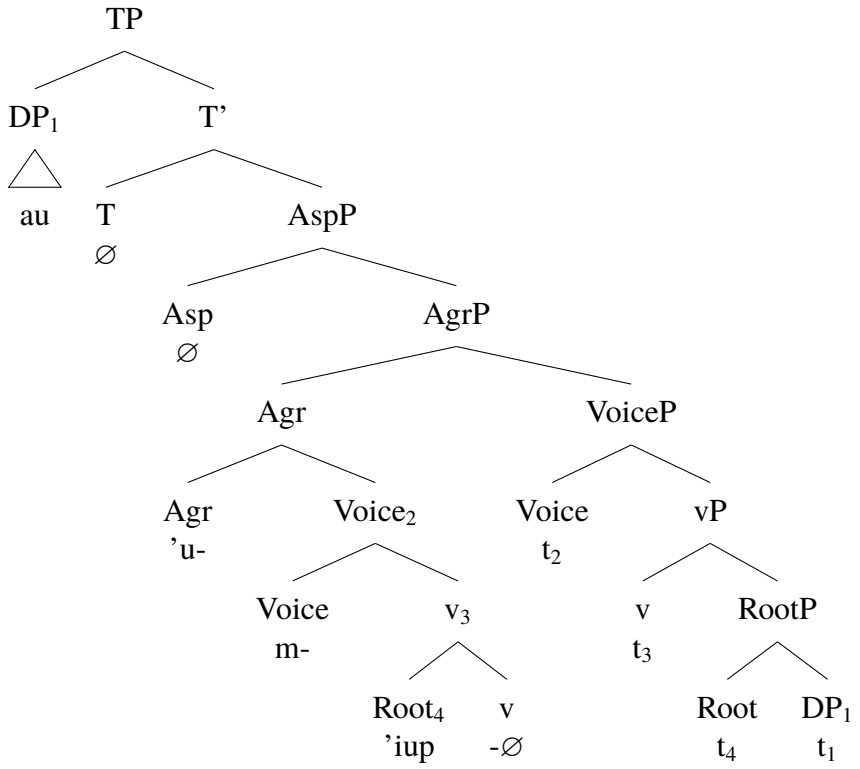
c. Au 'u-**m-**'iup.
1SG.NOM 1SG-STAT-break
'I was broken.' (YEK/NSK; elic. Sep. 15, 2021) (i.e. I am the branch.)

d. Hoo mu-**m-**'iup.
2SG.NOM 2SG-STAT-break
'You were broken.' (YEK/NSK; elic. Sep. 15, 2021) (i.e. You are the branch.)

The exact semantics of "stative" *m(a)-* are unresolved, so I am defaulting to the term used in Edwards (2020: 446). "passive" or "resultative" is an alternative. In terms of argument structure, it is clear that an agent DP is not present *syntactically* with these stative verbs, giving them the functionally unaccusative structure for (104c) illustrated in (105). Some evidence will be presented in section 2.4.4 indicating that an agent DP is present *semantically*, as they are in English passives (Alexiadou, Anagnostopoulou & Schäfer 2015: 20, Bhatt & Pancheva 2017: 8). Ultimately, nothing about allomorphy within the verbal complex crucially depends on this question.

[11] The asyllabic 1SG prefix '- [ʔ-] is null when attaching to verb stems that begin with [ʔ].

(105)



An observation that does relate to allomorphy is the form of stative *m(a)-* in different constructions. Stative *m(a)-* is not very productive on verbs in Uab Meto (Edwards 2020: 446, Tan (2023: 224), unlike on nouns (Tan 2023: 227). Stative *m(a)-* takes the form *ma-* in nominalizations. *m(a)-* is typically accompanied in these constructions by a nominalizing suffix -' (Tan 2023: 230). One can compare (106a) and (106b), which both have a stative meaning. Crucially, the nominalized stative in (106b) lacks agreement. In fact, agreement is impossible in these nominalizations (107).

(106) a. Hau=be iin toe-n na-**m-**'iup.
tree=DEF 3SG.NOM branch-3SG.INAL 3-STAT-break
'The tree's branch was broken.' (YEK/NSK; elic. Aug. 18, 2021)

b. Hau=be iin toe-n **ma-**'ipu**-'**.
tree=DEF 3SG.NOM branch-3SG.INAL STAT-break-NMLZ
'The tree's branch was broken.' (YEK/NSK; elic. Aug. 18, 2021)

(107) a. Au (*'-)ma-tepo-'.
1SG.NOM (*1SG-)STAT-hit-NMLZ
'I was hit.' (YEK; elic. Jul. 28, 2021)

b. *Buuk*=be (***n-**)ma-tu<'>i. / (***n-**)ma-tui-'
book=DEF (*3-)STAT-write<NMLZ> / (*3-)STAT-write-NMLZ

'The book was written.' (YEK/NSK; elic. Aug. 4, 2021)[12]

The presence or absence of Agr in the verbal complex is the relevant factor in the alternation between the *m-* and *ma-* forms of stative Voice. The form of the root has no evident effect. For example, metathesized *'iup* (104, 106a) and unmetathesized *'ipu* (108) 'break, snap' both show up with *m-* in verbs, and *'ipu* shows up with *ma-* in nouns (106b). The presence of $v_{[+CAUS]}$ also has no evident effect, being absent in (106)-(108) and present in (109)-(110) (Tan 2023: 285). The identity of the root doesn't matter either. (110) also shows another example of a root that can be used in both constructions, *sópu*/*sóóp* 'go through, finish'.

(108) Hae-k=e na-**m-'ipu**=te.
leg-1SG.INAL=DEF 3-STAT-break=SET
'My leg was broken.' (LTK; AOZ2019-MON011, line 152)

(109) a. *Méé j*=e **ma-**sae**-b**-∅.
table=DEF STAT-rise-CAUS-NMLZ
'The table was raised.'
(YEK; elic. Mar. 25, 2021)

b. Faat=be *bisa* **ma-**mófu**-**∅-'.
stone=DEF can STAT-fall-CAUS-NMLZ
'The stone can be dropped.'
(YEK/NSK; elic. Oct. 6, 2021)

(110) a. Na-sóóp-∅ téunn=e=ben.
3-go.through-CAUS weaving=DEF=INCP
'(Someone) has finished the weaving.' (YEK; elic. Aug. 18, 2021)

b. *Buuk*=be na-**m-sóóp-**∅.
book=DEF 3-STAT-go.through-CAUS
'The book was cut.' (YEK; elic. Oct. 13, 2021)

c. Téunn=e fuunn=es **ma-sópu-**∅**-'**.
weaving=DEF moon=one STAT-go.through-CAUS-NMLZ
'The weaving was finished within one month.' (YEK; elic. Aug. 18, 2021)

Since we can't appeal to the identify or form of the root or to the type of v present, we must appeal to a structural difference between stative verbs and nominals. As noted above, the key difference between these two structures is that stative verbs have an Agr-prefix node above Voice, while stative nominals have an n-suffix node above Voice. One could appeal to either of these depending on the choice of default allomorph. It is difficult to find a decisive motivating factor for one or the other, but I will choose *ma-* as the default and analyze the *m-* allomorph as being conditioned by the presence of Agr. Vocabulary entries for the allomorphs are provided in (111).

(111) a. $\text{Voice}_{\text{STAT}} \longleftrightarrow$ [m-] / Agr _
b. $\text{Voice}_{\text{STAT}} \longleftrightarrow$ [ma-] / elsewhere

[12] In some varieties of Uab Meto, the -' suffix that nominalizes the verb is infixed between the two vowels of VV-final stems (Edwards 2020: 443) when there is no enclitic attached. YEK prefers to infix in this way, while NSK does not.

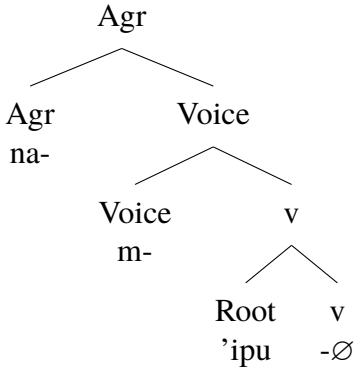
I analyze *ma-* as being the default allomorph for two reasons. The first is that stative nominals are much more productive, attaching readily to native verb stems (106b, 107, 148, 109, 110c) and loanwords (112).

(112) a. ma-*lesa*-' (Dutch *lezen* 'read')
STAT-read-NMLZ
'(thing that is) read' (YFB/YEK/NSK; elic. Jul. 2, 2022)

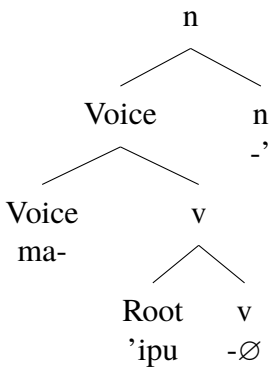
b. ma-*hormata*-' (Malay *hormat* 'honor, respect')
STAT-honor-NMLZ
'honored, honorable' (Tan 2023: 227)

The second reason is that given the structures posited for stative verbs and nominals, having allomorphy on Voice triggered by Agr is less controversial than allomorphy triggered by n. This has to do with the linearization of Agr and n relative to Voice. Agr is always an overt prefix. n is typically but not always overt, and when it is overt it is always a suffix. Stative *m(a)-* is also always a prefix, so Agr and Voice are uncontroversially linearly adjacent, in addition to being structurally adjacent. n is structurally adjacent to Voice but not linearly adjacent. This difference is illustrated in (113) and (114) for the stative verb in (108) and stative nominal in (106b) respectively.

(113)



(114)



The only way to get n and Voice to be linearly adjacent would be to assume that there can be linear adjacency before Vocabulary Insertion of n, at which point it obtains its phonological information, including whether it is a prefix or suffix. This issue may not matter under the assumption that n grammatically conditions the *ma-* allomorph. Frameworks like Bobaljik (2000) would accept grammatical conditioning from a higher, non-linearly adjacent node. On the other hand, frameworks like Embick (2015) would not accept this due to the lack of linear adjacency, even though there is structural adjacency. This issue is sidestepped by assuming that a higher morpheme that is both structurally and linearly adjacent grammatically conditions the allomorphy of stative *m(a)-*.

2.4.3 Deobjective *ma-*

The third Voice head is deobjective *ma-*. *ma-* also detransitivizes verbs, but in a distinct way from stative *m(a)-*. (115) shows *ma-* attaching to the verb *tepo/teop* 'hit'. (115a) shows the base verb, with

an agent acting on a patient, and (115b-d) show the deobjective version, where the agent remains and the patient is suppressed. If the subject is plural, elicited translations with no context often give rise to a reciprocal interpretation (Edwards 2020). If the subject is singular, elicited translations with no context have an existentially interpreted object (115c). It is also possible to include an overt oblique object (115d) introduced by *oka/ook* 'with'. (116) provides analogous examples with the verb *kena/keen* 'shoot'.

(115) a. Au ʼ-teop koo.
1SG.NOM 1SG-hit 2SG.ACC
'I hit you.'
(YEK; elic. Jul. 28, 2021)

b. Hita t-**ma**-teop.
1PL.INC.NOM 1PL.INC-DEOB-hit
'We hit/fight each other.'
(YEK; elic. Aug. 11, 2021)

c. Au ʼ-**ma**-teop.
1SG.NOM 1SG-DEOB-hit
'I fight (with someone).'
(YEK; elic. Jul. 28, 2021)

d. Au ʼ-**ma**-teop ʼ-ook koo.
1SG.NOM 1SG-DEOB-hit 1SG-with 2SG.ACC
'I fight with you.'
(YEK; elic. Oct. 1, 2021)

(116) a. Ina n-keen faaf=jes.
3SG.NOM 3-shoot pig=one
'He shot a pig.' (YEK; AOZ2019-WORDLIST001, line 265)

b. Hita t-**ma**-keen.
1PL.INC.NOM 1PL.INC-DEOB-shoot
'We shoot each other.'
(YEK; elic. Sep. 22, 2021)

c. Au ʼ-**ma**-keen.
1SG.NOM 1SG-DEOB-shoot
'I shoot.' / 'I war.'
(SRB/YFB/YEK/NSK; elic. Jul. 2, 2022)

d. Au ʼ-**ma**-keen ʼ-ook koo.
1SG.NOM 1SG-DEOB-shoot 1SG-with 2SG.ACC
'I shoot with you.'
(YEK; elic. Sep. 22, 2021)

The reciprocal interpretation is a pragmatic implicature. Examples like (115b) with a plural subject can be interpreted with an existential object (117a); the subject entities do not need to be directing the action at each other. Examples like (117b) with a plural subject and overt oblique object confirm the optionality of subject reciprocity.

(117) a. Hita t-ma-teop.
1PL.INC.NOM 1PL.INC-DEOB-hit
'We fight (with someone/each other).' (YEK/NSK; elic. Apr. 13, 2022)

b. Hita t-ma-teop t-ook faef fui=nun.
1PL.INC.NOM 1PL.INC-DEOB-hit 1PL.INC-with pig wild=PL
'We fight with wild pigs.' (YEK; elic. Jul. 1, 2022)

Deobjective *ma-* has the syntactic effect of an antipassive. As with typical antipassives, it demotes objects rather than subjects, though an object remains semantically (Silverstein 1972: 395) and may optionally be expressed overtly in an oblique way (England 1988: 532-533). One difference from

typical antipassives, however, is that the oblique object must be capable of directing the action back at the subject. This may explain the incompatibility of more asymmetrical verbs like *inu*/*iun* 'drink' with *ma-* (118). Other than this restriction, deobjective *ma-* is quite productive on verbs.

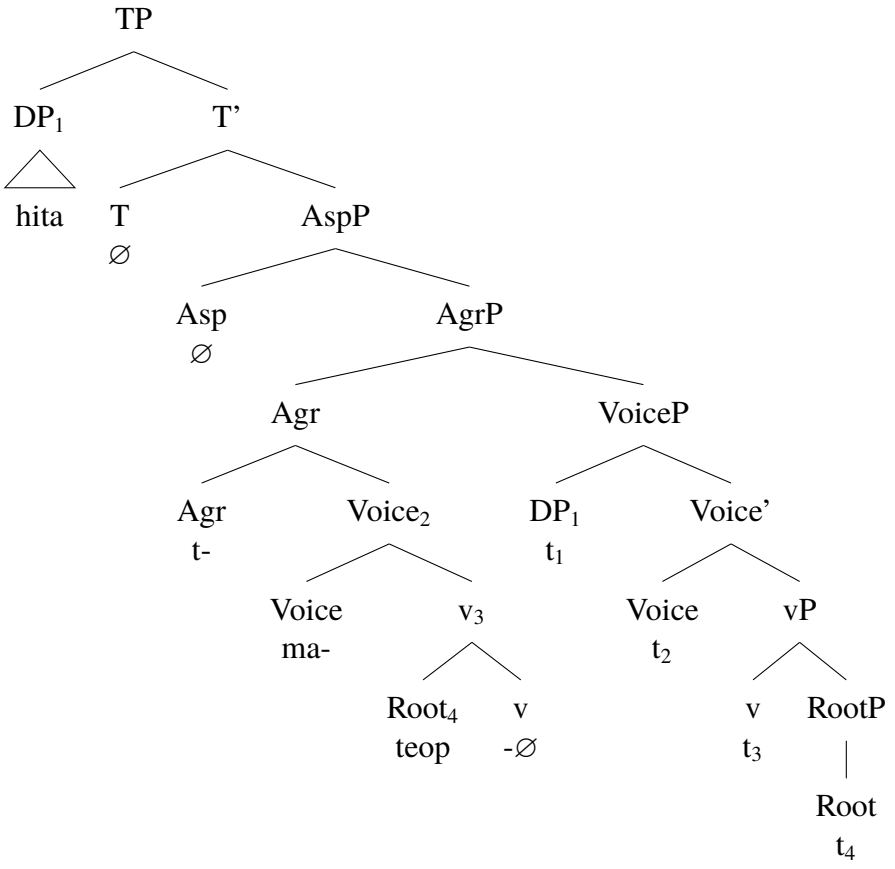
(118) a. Au ’-iun *kofe*.
1SG.NOM 1SG-drink coffee
'I drink coffee.' (YEK/NSK; elic. Jul. 1, 2022)

b. * Au ’-ma-’-iun (’-ook *kofe*).
1SG.NOM 1SG-DEOB-EPEN-drink (1SG-with coffee)
Intended: 'I drink (with coffee).' (YEK/NSK; elic. Jul. 1, 2022)

I analyze deobjective *ma-* in a way that broadly follows Labelle (2008)'s analysis of French reciprocal *se* (119). Labelle (2008) analyzes French reciprocal *se* as a Voice head that introduces the external argument and combines with a VP containing an unsaturated internal argument variable. Syntactically, sentences with deobjective *ma-* and an implied object are unergative, with only an external argument present. To illustrate the analysis, a tree of (115b) is given in (120).

(119) Luc et Pierre **se** regard-ent.
Luc and Pierre SE look.at-PRES.3PL
'Luc and Pierre look at each other.' (Labelle 2008: 834)

(120)



Deobjective *ma-* can also occur in nominalizations, as shown in (121) for the same roots *tepo/teop* 'hit' and *kena/keen* 'shoot'. As with stative *m(a)-* (107), agreement is also absent in these nominalizations. Notably, the form is *ma-* in both cases, rather than alternating between *m-* and *ma-* (106), or some other alternation.

(121) a. A|n-mui' **ma-tepo-s**.
EPEN|3-have DEOB-hit-NMLZ
'There is a fight.'
(YEK/NSK; elic. Sep. 29, 2021)

b. **Ma-keen-t**=e 'loob=en.
DEOB-shoot-NMLZ=DEF long=INCP
'The war was long.'
(YEK/NSK; elic. Oct. 20, 2021)

In fact, deobjective *ma-* does not seem to display any allomorphy, despite initial appearances. Edwards (2020: 442) reports six verbs in the Kotos Amarasi variety whose roots begin in /t/ that take a *mak-* allomorph, one of which is *tana/taan* 'ask' (122a). Tan (2023: 304) additionally reports two roots that begin in /s/ that take *mak-*, one of which is *senu(')* 'replace' (122b). However, not all roots beginning with /t/ and /s/ take *mak-*, as shown by (122c-d). (122d) has the same root as in (122a), showing that there can be variation.

(122) a. Hai m-**mak-**tana=n mi-knuut'=e.
1PL.EXC.NOM 1PL.EXC-DEOB-ask-PL 1PL.EXC-fine=3SG.ACC
'We asked one another (about it) to refine it.' (Edwards 2020: 371)

b. n-**mak-**senu'
3-DEOB-replace
'take turns with each other, replace each other' (Tan 2023: 304)

c. Ahh, rari=te, n-**ma-**taeb n-ook ahh baroit=n=eni=ma hai
FILL finish=SET 3-DEOB-greet 3-with FILL bride/groom=PL=PL=and 1PL.EXC.NOM
m-tebi m-fain iim.
1PL.EXC-turn 1PL.EXC-return 1PL.EXC.come
'After that he shook hands with each of the bride and groom and we turned and came back.' (Edwards 2020: 356)

d. N-**ma-**senu=n=ama a|n-ma-bana=n n-bii=n re' nana mese'
3-DEOB-replace=PL=and EPEN|3-DEOB-hit=PL 3-RLS.LOC=PL REL inside but
'They replaced and fought one another inside but...' (Edwards 2020: 340)

The fact that a small number of roots take the *mak-* form makes a case for the *ma/mak-* alternation being a case of lexically conditioned allomorphy. On the other hand, Tan (2023: 305) analyzes the [k] portion of *mak-* as belonging to a separate prefix, where the [k] is actually a separate *k-* prefix marking reciprocity that has a null allomorph on most verb roots. There is merit to this analysis, including in the Miomafo variety on which this chapter is based. The data available to me are limited, but the difference in meaning between (123a) and (123b) suggests that there is a *k-* prefix that contributes a distinct meaning. The translation of (123b) is consistent with a translation for the same verb in the Kotos Amarasi variety in (124a) and a naturalistic use of the verb by a Miomafo speaker in (124b).

(123) a. Hita t-**ma-**tuin.
1PL.INC.NOM 1PL.INC-DEOB-follow
'We follow each other.'
(YEK; elic. Jan. 29, 2024)

b. Hita t-**ma-k-**tuin.
1PL.INC.NOM 1PL.INC-DEOB-K-follow
'We queue/line up.'
(YEK; elic. Jan. 29, 2024)

(124) a. **n-ma-k-tuin**=ein
3-DEOB-K-follow=PL
'consecutively' (Edwards 2020: 442)

b. Hai **n-ma-k-tuin**=in a|m-seen ane.
1PL.EXC.NOM 3-DEOB-K-follow=PL EPEN|1PL.EXC-plant rice.plant
'We plant rice in a line.' (HNK; AOZ2019-MON006, lines 19-21)

This is the only verb of which I am currently aware that exhibits this alternation, so I am not yet ready to commit to the existence of a separate *k-* prefix without more evidence. What is important for our purposes here is that the available evidence suggests that deobjective *ma-* does not in fact have an allomorphic alternation between *ma-* and *mak-*. There is only *ma-*, and the status of the [k] remains unresolved.

Though deobjective *ma-* does not exhibit allomorphy itself, it does affect agreement-prefix allomorphy. Notably, all verbs with *ma-* take asyllabic Agr prefixes. This includes both verbs that lexically select for syllabic Agr (123a vs. 125) and causativized verbs that would otherwise take syllabic Agr (126a vs. 126b). This important observation will be revisited in chapter 3.

(125) Hiit **ta-tuin** fafi.
1PL.INC.NOM 1PL.INC-follow pig
'We follow a pig.' (YEK; elic. Jan. 29, 2024)

(126) a. Sina **n-ma-took-b**=in.
3PL 3-DEOB-sit-CAUS=PL
'They seat each other.'
(YEK/NSK; elic. Dec. 8, 2021)

b. Iin **na-toko-b** kau.
3SG.NOM 3-sit-CAUS 1SG.ACC
'He/she seated me.'
(YEK/NSK; elic. Oct. 27, 2021)

2.4.4 The syntax of Voice

Now that the existence of "default" Voice, stative *m(a)-*, and deobjective *ma-* has been established, we can now discuss their syntax. I assume that these three Voice heads all compete for the same Voice slot in the verbal complex. They occur in complementary distribution, though stative *m(a)-* is unproductive on verbs. They have distinct effects on the valency of the verbal complex. Default Voice does not affect it (127a); stative *m(a)-* suppresses the agent (127b); and deobjective *ma-* suppresses the patient (127c).

(127) a. Au **'-teop** koo.
1SG.NOM 1SG-hit 2SG.ACC
'I hit you.'
(YEK; elic. Jul. 28, 2021)

b. Au **ma-tepo-'**.
1SG.NOM STAT-hit-NMLZ
'I was hit.'
(YEK; elic. Jul. 28, 2021)

c. Au **'-ma-teop**.
1SG.NOM 1SG-DEOB-hit
'I fight (with someone).'
(YEK; elic. Jul. 28, 2021)

Beyond the fact that these voice markers occupy the same Voice head, it is important in accounting for agreement-prefix allomorphy to locate Voice in the verbal complex. We have already seen two arguments that Voice is above $v_{[+CAUS]}$. First, as shown in section 2.3.2, Uab Meto suffixed causatives formed with $v_{[+CAUS]}$ are vP-selecting type (Tan 2023: 327), meaning that $v_{[+CAUS]}$ selects for a vP complement. This vP complement can be headed by "default" v, $v_{[+BE]}$ or $v_{[+HAVE]}$. Default v takes a RootP complement, while $v_{[+BE]}$ and $v_{[+HAVE]}$ take a nP complement, and the head n of this nP takes a RootP complement. Based on this reasoning, Voice must be above $v_{[+CAUS]}$ and thus also default v, $v_{[+BE]}$, $v_{[+HAVE]}$, n, and the root. In fact, Voice being above v is a standard assumption (see Alexiadou, Anagnostopoulou & Schäfer 2015; Harley 2013; Legate 2014, among others), but it can also be justified in Uab Meto in various ways.

Secondly, we saw in section 2.3.3 that inanimate causers cannot be the subjects of ditransitive causatives, while agentive causers can. I assume inanimate causers are introduced in $vP_{[+CAUS]}$, loosely following Pesetsky (1995) and Alexiadou, Anagnostopoulou & Schäfer (2015). I also assume that the causees of ditransitive causatives are introduced in an ApplP between Voice and $v_{[+CAUS]}$. Combining these less common assumptions with the standard assumption that agents are introduced in Spec,VoiceP (Alexiadou, Anagnostopoulou & Schäfer 2015; Harley 2013; Legate 2014; Pylkkänen 2008), the result is that agents can be subjects in these constructions because they are the highest DP, and thus the closest to the D-probe on T, while inanimate causers cannot be subjects here, because the causee is introduced in a higher position than the causer in these cases.

A third argument for Voice being higher than $v_{[+CAUS]}$ comes from the scopal interpretation of deobjective ditransitive causatives with deobjective *ma-* (Tan 2023: 332). Recall that one piece of evidence for Uab Meto having vP-selecting causatives is the ambiguity of examples like (74), repeated as (128). In this case, default v introduces the running event, and $v_{[+CAUS]}$ introduces the causing event, and it is ambiguous without further context which of these events the adverbial *labah* 'quickly' is describing. It could attach as an adjunct to either vP.

(128) Hiit ta-'-aena-' siin **labah**.
1PL.INC.NOM 1PL.INC-EPEN-run-CAUS 3PL quickly
'We make them quickly run.' OR 'We quickly make them run.'
(YEK; elic. Jan. 23, 2024, based on Tan 2023: 328)

In theory, one might expect a similar ambiguity if Voice could attach above any vP in a multi-vP structure. As a baseline case, the base verb *mnau* 'remember' (129a), can combine with deobjective *ma-* to derive *mamnau* 'remember each other' (129b). This verb only has one interpretation, where the reciprocity associated with *ma-* describes the remembering event. This verb is not causativized, so there is only one event in the clause. To test a structure with multiple vPs and thus multiple events, one can causativize *mnau* 'remember' to make *mnaub* 'remind' (130a). Adding *ma-* to *mnaub* creates *mamnaub* 'remind each other' (130b). Crucially, this verb only has one interpretation, the one

in which the reciprocity associated with *ma-* applies to the causing event, not the remembering event. In other words, reciprocity/deobjective must scope over causative: DEOB > $v_{[+CAUS]}$. Therefore, deobjective *ma-* must be higher than $v_{[+CAUS]}$. In order to have a causative meaning outscope reciprocity, one must use a periphrastic causative like (130c), where the causative *mo'e/moe'* 'make, do' is in the matrix clause and deobjective *ma-* is in the embedded clause.

(129) a. Au **'u-mnau** koo.
1SG.NOM 1SG-remember 2SG.ACC
'I remember you.' (YEK/NSK; elic. Feb. 2, 2022)

b. Meu=t ∅-**ma-mnau=n**|a m-bii=n hiit
tomorrow=SET 2PL-DEOB-remember=PL|EPEN 2PL-RLS.LOC=DAT 1PL.INC.NOM
kuan=am ...
village=and ...
'In the future you will remember each other in our village, and...'
(KSF; AOZ2019-MON003, line 51)

(130) a. Au **'u-mnau-b** koo he m-soos manu.
1SG.NOM 1SG-remember-CAUS 2SG.ACC IRR 2SG-buy chicken
'I remind you to buy a chicken.' (YEK; elic. Feb. 2, 2022)

b. Au **'-ma-mnau-b** '-ook koo n-eu Bi Nona.
1SG.NOM 1SG-DEOB-remember-CAUS 1SG-with 2SG.ACC 3-to Ms. Nona
✓ DEOB > $v_{[+CAUS]}$ 'I remind with you about Nona.' / 'We remind each other about Nona.'
* $v_{[+CAUS]}$ > DEOB 'I make you and Nona remember each other.'
(YEK; elic. Jan. 29, 2024)

c. Au **'-moe'** koo m-ook Bi Nona ∅-**ma-mnau=n**.
1SG.NOM 1SG-do 2SG.ACC 2SG-with Ms. Nona 2PL-DEOB-remember=PL
✓periphrastic CAUS > DEOB 'I make you and Nona remember each other.'
(YEK; elic. Jan. 29, 2024)

A final argument for Voice being higher than $v_{[+CAUS]}$ comes from restrictions on which verbs can form nominals with stative *m(a)-*. Stative nominals are much more productive than stative verbs, allowing for clearer generalizations about which types of verbs are semantically compatible with the prefix. Tan (2023: 228) observes that stative nominals can only be formed from transitive verb stems. Neither unergatives (131) nor accusatives (132) are possible stems.

(131) a. * ma-bua-' / ma-bu<'>a
STAT-clump-NMLZ / STAT-clump<NMLZ>
Intended: 'gathered' (Tan 2023: 229)[13]

[13] See (107) and the attached footnote for the reason that both forms were tested.

b. * Iin ma-toko-'.
3SG.NOM STAT-sit-NMLZ
Intended: 'He/She/It was sat.' (YEK/NSK; elic. May 11, 2022)

(132) a. * ma-sae-' / ma-sa<'>e
STAT-rise-NMLZ / STAT-rise<NMLZ>
Intended: 'risen, ascended' (Tan 2023: 229)

b. * Hoo ma-mofu-'.
2SG.NOM STAT-fall-NMLZ
Intended: 'You have/were fallen.' (SRB/YFB/YEK/NSK; elic. Jul. 2, 2022)

Notably, these intransitive verbs are possible in stative nominals when they have been causativized and thus are built from a transitive base (133). Recall that *mófu/móóf* does not have an overt causativization suffix (71), so the grammatical stative nominal *mamofu'* 'dropped' in (133c) is homophonous with the way that one would theoretically say 'fallen' in (132b), but only the interpretation with an implied agent is possible. These verbs are semantically transitive, but because they combine with stative *m(a)-* they are syntactically unaccusative. If they instead combined with default Voice, as in (80c), (126b), (52b), and (71b), they would be both syntactically and semantically transitive.

(133) a. *Méé j*=e **ma-sae-b-∅**.
table=DEF STAT-rise-CAUS-NMLZ
'The table was raised.'
(YEK; elic. Mar. 25, 2021)

b. Iin **ma-toko-b-∅**.
3SG.NOM STAT-sit-CAUS-NMLZ
'He/She/It was seated.'
(YEK/NSK; elic. May 11, 2022)

c. Faat=be bisa **ma-mófu-∅-'**.
stone=DEF can STAT-fall-CAUS-NMLZ
'The stone can be dropped.'
(YEK/NSK; elic. Oct. 6, 2021)

The fact that only the transitivized versions of these verbs are possible in stative nominals shows that Voice is higher than $v_{[+CAUS]}$. This argument works in two ways. If you start with an unaccusative verb like *sae* 'rise' or *mófu/móóf* 'fall', these verbs in their unaccusative usage combine with default v, which adds event semantics but makes no contribution regarding argument structure. The resulting vP then combines with default Voice, which in this case introduces no external argument, as shown in (77). Default Voice is compatible with this derivation. On the other hand, stative *m(a)-* does not introduce an agent syntactically, but it introduces and abstracts over one semantically. $v_{[+CAUS]}$ modifies the semantics of the stem to allow for the introduction of a causer at least semantically, if not also syntactically like in (78). Unaccusative verbs need to be causativized by $v_{[+CAUS]}$ before they are ready to combine with a Voice head that demands a semantic agent. If you start with an unergative verb like *bua* 'gather' and *toko/took* 'sit', these verbs lack an internal argument in their base forms, but stative *m(a)-* requires this argument and the semantic configuration to interpret it. These verbs need to combine with $v_{[+CAUS]}$ to allow for the introduction of

an internal argument. $v_{[+CAUS]}$ creates the transitive verb stem needed for combination with stative *m(a)-*; the stem is not compatible with stative *m(a)-* before this. Thus, stative *m(a)-* must be higher than $v_{[+CAUS]}$, and more broadly, Voice must be higher than v.

2.4.5 Section summary

This subsection has shown that there are at least three distinct Voice heads in Uab Meto: "default" or "active" Voice, stative *m(a)-*, and deobjective *ma-*. Default Voice can introduce the external argument, but it can also be semantically inert, as with unaccusative verbs. Stative *m(a)-* does not introduce an external argument syntactically, but introduces and abstracts over one semantically. It also requires the presence of an internal argument. Deobjective *ma-* introduces an agent both syntactically and semantically. It also semantically requires the presence of an internal argument. The internal argument can either be null and abstracted over, or it can be introduced obliquely by *oka*/*ook* 'with'. These Voice heads alternate; only one can be present at a time, and they all occupy the same Voice head projection above Appl, $v_{[+CAUS]}$, the other v heads, n in denominal verbs, and the root.

In terms of allomorphy, default Voice is always null. Stative *m(a)-* surfaces as *m-* in the presence of Agr (i.e. on verbs) and *ma-* on nouns. Deobjective *ma-* always surfaces as *ma-*; preliminary evidence suggests that the additional [k] that surfaces with some /t/- and /s/-initial stems may be a separate morpheme.

2.5 The syntax of Agr

The last piece of the verbal complex is agreement. For reasons discussed at length in Lemon (2024a) and chapter 4, I analyze Uab Meto verbal agreement as being instantiated in a dedicated Agr projection that is the highest element in the verbal complex. I will only provide a brief overview of the syntactic side here and instead focus mostly on the morphological evidence for Agr being the highest element in the verbal complex.

There are three lines of evidence that lead to the conclusion that Agr is the highest element in the verbal complex. The first line of evidence comes from the DPs with which Agr chooses to agree. In section 1.6 we saw that Uab Meto agreement is nominative-aligned. Uab Meto verbs do not necessarily agree with nominative-marked DPs – one common example is agreement of the embedded verb with accusative-marked DPs in periphrastic causatives (72, 73) – but they consistently agree with the highest argument generated in their c-command domain, regardless of where it originates.

For example, in sentences with unaccusative verbs, agreement is with a patient that originates as a complement of the root (134a). However, in sentences with causativized unaccusatives, agreement is with the agent, presumably introduced in Spec,VoiceP (134b). Trees illustrating their structure are provided in (77) and (78).

(134) a. Au **'-sae**.
1SG.NOM 1SG-rise
'I rise.' (YEK; elic. Mar. 25, 2021)

b. Hoo **mu-sae-b** kau.
2SG.NOM 2SG-rise-CAUS 1SG.ACC
'You raise me.' (YEK; elic. Mar. 25, 2021)

Non-causativized transitive verbs agree with the agent of the event described by the root (135a). However, causativized transitives agree with the agent of the causing event, not the causee or the patient (135). The structure of (135b) is provided in (79). Under the assumption that external arguments are generated in Spec,VoiceP (Harley 2013; Legate 2014), the fact that verbs agree with the highest argument, regardless of where it is base-generated in the clause, provides syntactic evidence that agreement is higher than Voice, and thus everything else in the verbal complex.

(135) a. Neno ii hoo **m-éók** bolo.
day DEM.PROX 2SG.NOM 2SG-eat cake
'Today you eat cake.' (YEK/NSK; elic. Oct. 20, 2021)

b. Au **'u-'-éku-t** koo bolo.
1SG.NOM 1SG-EPEN-eat-CAUS 2SG.ACC cake
'I feed you cake.' (YEK/NSK; elic. Jul. 14, 2021)

The second line of evidence that Agr is the highest element in the verbal complex is based on morpheme ordering. Straightforward evidence that agreement is higher than Voice comes from the fact that agreement always occurs peripheral to Voice. The Voice prefixes stative *m-* (136a) and deobjective *ma-* (136b) intervene between agreement and the verb root. If Agr were lower than Voice, we would expect it to attach first, and this linear intervention would be unexpected.

(136) a. Iin *ase* na-**m**-'iup haef nuub.
3SG.NOM axle 3-STAT-break time two
'Its axle was broken twice.' (LTK; AOZ2019-MON011, line 428)

b. Au '-**ma**-haep '-ook koo.
1SG.NOM 1SG-DEOB-close 1SG-with 2SG.ACC
'I'm close with you.' (YEK; elic. Jul. 30, 2019)

The third line of evidence comes from where Agr does not occur. More specifically, we can also show that agreement is higher than Voice and $v_{[+CAUS]}$ through nominalizations. Unlike the denominal verbs discussed in section 2.2.3 that end up as verbs, these nominalizations are best described as deverbal nouns; the roots are first categorized as verbs by combining with v before later combining with n. As we will see, these higher, recategorizing n heads are often overt. Deverbal noun nominalizations of all sizes in Uab Meto lack agreement, including nominalizations that contain overt $v_{[+CAUS]}$ and Voice heads. The fact that nominalizations can include these heads but exclude agreement suggests that agreement is higher than them.

The simplest nominalizations include only a verb root and the nominalizing suffix *-t*, at least overtly. These indicate the result or instrument associated with the verb. As an example, agreement attaches to the verb root *keen/kena* 'shoot' when it is not nominalized (137a), but there is no agreement with nominalization (137b). Thus, agreement is higher than the root.

(137) a. Ina **n-keen** faaf=jes.
3SG.NOM 3-shoot pig=one
'He shot a pig.' (YEK; AOZ2019-WORDLIST001, line 265)

b. T-aem fua-f n-eu **kena-t**.
1PL.INC-look.for fruit-INAL 3-for shoot-NMLZ
'We were looking for bullets for the guns.' (YEK; AOZ2019-MON002, line 34)

Increasing complexity, the prefix *a-* can be added to create subject nominalizations[14]. This usually occurs with roots that have already been nominalized with *-t* (137b vs. 138). As expected, these nominalizations also lack agreement.

(138) Iin ees he na-toon a|n-fee molok neem on hai
3SG.NOM FOC IRR 3-tell EPEN|3-give talk 3.come IRR.LOC 1PL.EXC.NOM
a-kena-t.
SUB.NMLZ-shoot-NMLZ
'He wanted to give instructions to us as the shooters.' (YEK; AOZ2019-MON002, line 30)

Nominalizations can be built from verbal complexes with more overt material that just the verb root. In sections 2.3.1-2.3.2 we saw that Uab Meto features a few different causative suffixes, namely *-b*, *-'*, *-n*, *-∅*, and *-t*, and these were analyzed as $v_{[+CAUS]}$ heads. I will focus on *-b* here, because it is the only one that is phonetically unique to causatives. If a verb stem ends in a consonant, which includes roots causativized with one of these suffixes (139a vs. 139b), then the nominalizing suffix *-t* does not appear overtly in the corresponding nominalization, but subjective *a-* still appears (139c vs. 139d) (Edwards 2020: 442). Prefixing subjective *a-* allows one to form nominalizations that overtly feature $v_{[+CAUS]}$. The fact that nominalizations can include these suffixes without agreement indicates that agreement is higher than $v_{[+CAUS]}$.

(139) a. Ina **n-tuup** es haal'=e tuun.
3SG.NOM 3-sleep IPFV.LOC bed=DEF top
'She is sleeping on the bed.' (YEK; AOZ2019-WORDLIST001, line 261)

b. Au **'u-tupa-b** koo.
1SG.NOM 1SG-sleep-CAUS 2SG.NOM
'I put you to sleep.' (YEK; elic. May 19, 2021, based on Steinhauer 1993: 154)

c. **a-tupa-s** 'sleep' = /tupa/
SUB.NMLZ-sleep-NMLZ
'someone who sleeps' (Steinhauer 1993: 154)[15]

d. **a-tupa-b-∅** 'put to sleep' = /tupa-b/
SUB.NMLZ-sleep-CAUS-NMLZ
'someone who puts to sleep' (Steinhauer 1996a: 228)

[14]Many of these nominalizations, like *a-kena-t* 'shooter', are translatable as English agent nominalizations with *-er*, but examples like *a-masa-t* 'beautiful one' (YEK; elic. Oct. 28, 2021), *a-punu-t* 'rotten one' (YEK; elic. Jan. 26, 2022), *a-mate-s* 'dead one' (Edwards 2020: 442), and *a-lómi-t* 'fan, lover' (Steinhauer 1996a: 228) shows that *a-* references the highest argument associated with a verb, which may or may not be an agent.

[15]Nominalizing /-t/ takes the form [-s] on stems containing a [t] (Steinhauer 1996a: 228) and is null on C-final stems (Edwards 2020: 442).

The highest verbal elements that I have found in nominalizations are the prefixes stative *m(a)-* and deobjective *ma-*. These were analyzed in section 2.4 as Voice heads. I will first focus on stative *m(a)-*.

Stative *m(a)-* takes the form *ma-* in nominalizations. As noted in section 2.4.2, *m(a)-* is usually accompanied in nominalizations by a final nominalzing suffix *-'*. A stative verb vs. noun contrast is given in (106), and their structures are illustrated in (113) and (114). Agreement is impossible in these stative nominalizations, even when they are used predicatively (107). There are also nominalized statives that use the nominalizing suffix *-t*. (140a) shows the verbal version of *hóni/hóin/hónis* 'to birth', and (140b) shows a stative nominalization of this verb that includes stative *ma-* and the nominalizer *-t*, acting as an attributive modifier to *neno/neon* 'day'. There is no agreement here either.

(140) a. Nane nitu mese' ees **na-hóin-∅** kiit.
DEM.DIST ancestor one FOC 3-birth-CAUS 1PL.INC.ACC
'That is, one ancestor birthed us.' (KSF; AOZ2019-MON003, line 105)

b. iin neon **ma-hóin-∅-t**=e
3SG.NOM day STAT-birth-CAUS-NMLZ=DEF
'his birthday' (LTK; AOZ2019-MON011, line 141)

Deobjective *ma-* also occurs in nominalizations. Adding to the paradigm for *tepo/teop* 'hit' in (115) are *tepos* 'a hit' and *matepos* 'a fight' (141a-b), and adding to the paradigm for *kena/keen* 'shoot' in (116) and (137-138) are *makenat* 'war' and *amakentin* 'those who shoot each other'/'those who fight a war' (141c-d).

(141) a. **tepo-s**
hit-NMLZ
'a hit' (Steinhauer 1993: 151)

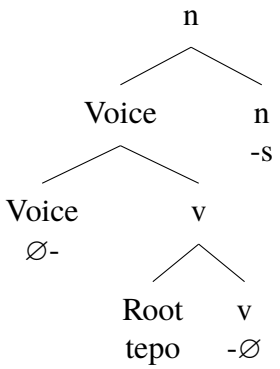
b. **ma-tepo-s**
DEOB-hit-NMLZ
'a fight'
(YEK; elic. Sep. 29, 2021)

c. **ma-kena-t**
DEOB-shoot-NMLZ
'a war' (YEK/NSK; elic. Sep. 29, 2021)

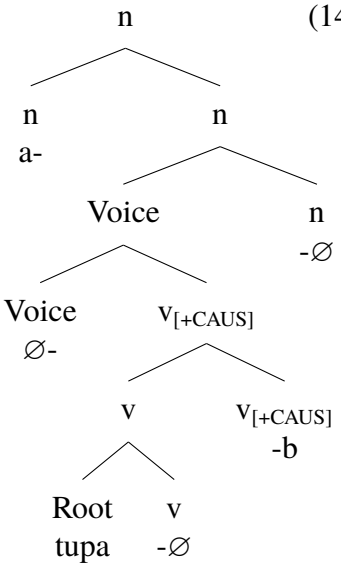
d. **a-ma-keen-t=in**
SUB.NMLZ-DEOB-shoot-NMLZ=PL
'those who shoot each other/fight a war'
(Tarno et al. 1992: 38)

Uab Meto nominalizations can be analyzed very similarly to verbal complexes with Agr. As discussed in section 1.6.2, verbal complexes with Agr are formed via head movement of the root, v, and Voice to Agr. Nomalizations are formed in the same way, except that instead of head movement to Agr, there is head movement to a nominalizing head. Subjective *a-* attaches to these nominalizations. Some example structures are provided in (142), (143), and (144). These show proposed structures for (141a), (139d), and (141d) respectively. Stative verb nominalizations formed with *ma-...-t* (140b) can be analyzed in a structurally identical way to those formed with *ma-...-'*; an example is given in (114).

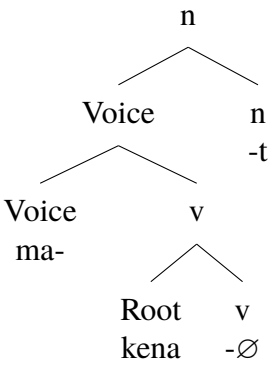
(142)



(143)



(144)

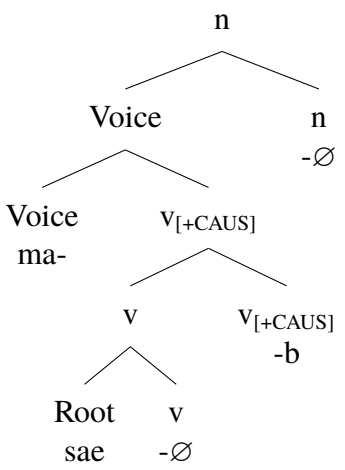


Lastly, it is possible to have both Voice and $v_{[+CAUS]}$ overtly in a nominalization (133a-b, 145). Proposed structures for (145a) and (145b) are shown in (146) and (147) respectively.

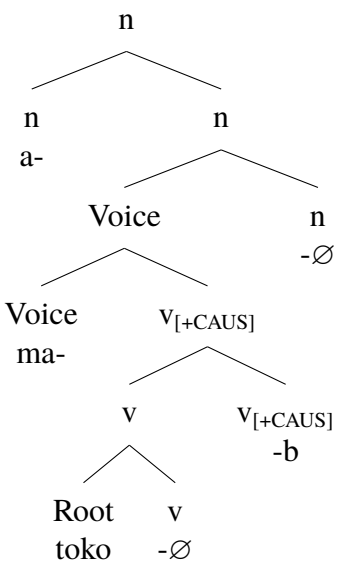
(145) a. Au **ma-**sae**-b**-∅.
1SG.NOM STAT-rise-CAUS-NMLZ
'I was raised.' (YEK/NSK; elic. Sep. 22, 2021)

b. A-**ma-**toko**-b**-∅ nae n-took es au '-toko-'.
SUB.NMLZ-STAT-sit-CAUS-NMLZ DEM.DIST 3-sit IPFV.LOC 1SG.NOM NMLZ-sit-NMLZ
'That seated person is sitting in my chair.' (YEK; elic. Oct. 28, 2021)

(146)



(147)



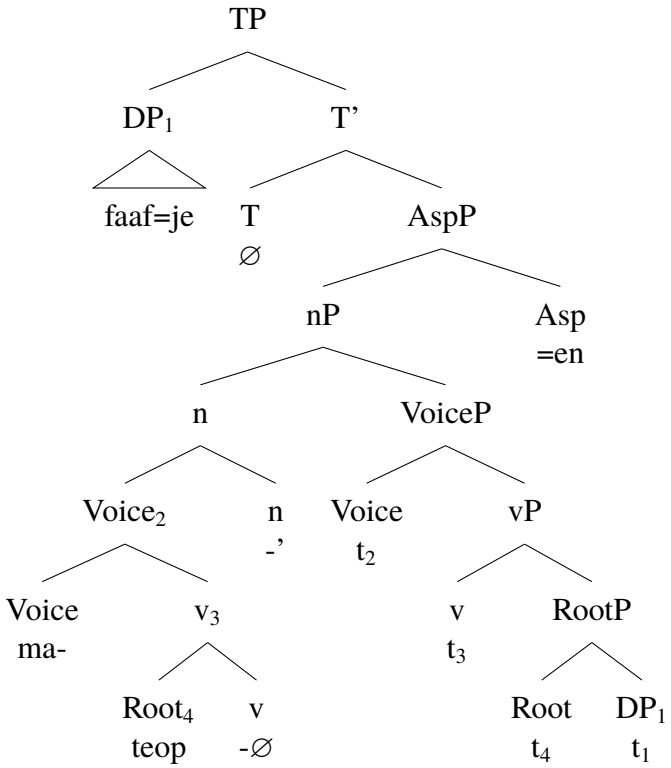
The proposed structures for nominalizations that we have seen so far only show the nominalizations themselves. Of course, we have seen examples of stative nominalizations being used predicatively in full clauses where agreement is obligatorily absent (106b, 107). The possibility of these predicative uses might lead one to predict that stative nominalizations are also compatible with TAM marking. This prediction is borne out. (133c) shows a stative nominal being used predicatively alongside the modal verb *bisa* 'can', and (148) shows stative nominals with inceptive *=en* and future *lof*.

(148) a. Faaf=je ma-teop-'**=en**.
pig=DEF STAT-hit-NMLZ=INCP
'The pig has been hit.' (YEK; elic. Aug. 18, 2021)

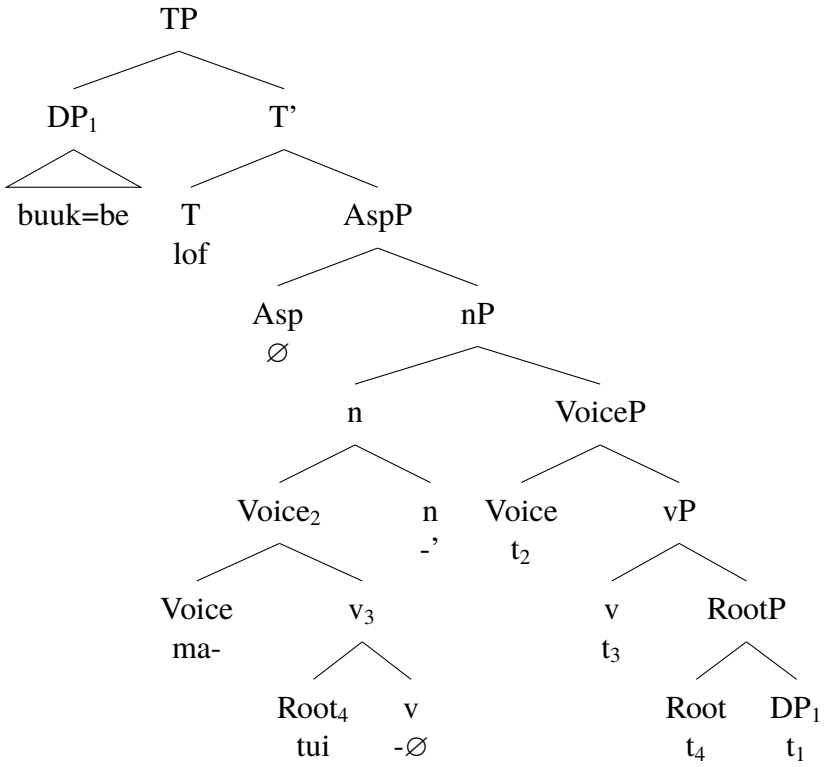
b. *Buuk*=be **lof** ma-tu<'>i. / ma-tui-'.
book=DEF FUT STAT-write<NMLZ> / STAT-write-NMLZ
'The book will be written.' (YEK/NSK; elic. Aug. 4, 2021)

Examples like these can be accounted for by saying that predicates can be nominal or verbal. Verbal predicates include AgrP. Nominal ones replace the AgrP layer with a nominalization (nP) layer. Agreement and deverbal nominalization are in complementary distribution. Structures for (148a) and (148b) are provided in (149) and (150) respectively. These can be compared to structures like (105) and (120), which have the AgrP layer instead.

(149)



(150)



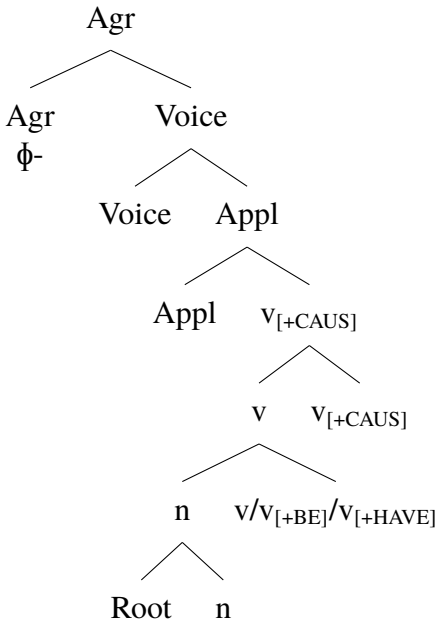
In summary, Agr must be higher than Voice for three reasons. First, agreement is always with the highest argument. This alignment is achieved with a ϕ-probe above the Merge site of external arguments in Spec,VoiceP. Second, we know from section 2.4.4 that Voice is the highest head in the verbal complex other than Agr, and we have seen here that Voice intervenes between Agr and the root, suggesting that Agr is higher than Voice. Third, all nominalizations derived from verbs in Uab Meto lack agreement. These nominalizations can include every other overt head in the verbal complex (root, $v_{[+CAUS]}$, Voice), but not Agr. This suggests that the nominalizing suffixes attach to VoiceP, which is large enough to include the root, $v_{[+CAUS]}$, and Voice but small enough to exclude Agr. Furthermore, the fact that these nominalizations can be used predicatively with TAM marking and still exclude agreement suggests that Agr is an independent syntactic projection (Pollock 1989, Chomsky 1991, Chomsky & Lasnik 1993, Yuan 2021, among others).

2.6 Chapter conclusion

This chapter has provided a detailed analysis of the structure of the Uab Meto verbal complex and the allomorphy displayed by its various parts. It started by discussing the low area of the root and the categorizing heads "default" v, n, and the special v heads associated with n, $v_{[+BE]}$/$v_{[+HAVE]}$ (section 2.2), motivating the existence of n, $v_{[+BE]}$, $v_{[+HAVE]}$, and the denominal verbs that they create. It then moved onto the middle area of $v_{[+CAUS]}$ and Appl (section 2.3), providing evidence that $v_{[+CAUS]}$ selects for vPs, and Appl introduces the causees of causativized transitive verbs above$v_{[+CAUS]}$. Lastly,

it finished with the high area of "default", stative, and deobjective Voice (section 2.4) and Agr (section 2.5), showing that Voice must be higher than $v_{[+CAUS]}$, and Agr must be higher than everything else in the verb. Discussion from this section leads to the conclusion that the structure of the verbal complex must be as in (151), repeated from (33). Not all parts are present in every verbal complex. Voice, v, and the root are always present. Agr is present on all actual verbs, but not nominalized ones. $v_{[+CAUS]}$ is only present in causativized verbs. Appl is only present with monotransitives that are causativized into ditransitives. Denominal verbs have roots that first combine with n and then $v_{[+BE]}$ or $v_{[+HAVE]}$ instead of "default" v. Many of these heads have overt instantiations, with clear syntactic and semantic effects, thus making their existence quite evident, but some, like Appl, low categorizing n, and $v_{[+BE]}/v_{[+HAVE]}$, are motivated primarily through semantics, though their morphology and syntax become apparent through careful examination of the relevant verbs.

(151)



This chapter has also analyzed the allomorphy displayed by all heads in the verbal complex with any overt allomorphs. $v_{[+CAUS]}$ has five allomorphs (*-b*, *-'*, *-n*, *-t*, and *-∅*) that are largely lexically selected by the root, apart from *-t*, which seems to be used primarily on transitive verbs in some dialects. $v_{[+BE]}$ and $v_{[+HAVE]}$ do not have any overt phonology themselves, but they often indicate their presence by triggering the deletion of the final consonant of C-final nouns that they verbalize, a form of subtractive morphology. Among Voice heads, "default" Voice is always null, while deobjective *ma-* is always *ma-*. Stative *m(a)-* surfaces as *m-* in stative verbs and *ma-* in stative nominals.

Knowing the structure of Uab Meto verbs is useful for the chapters to come. A clear understanding of their structure greatly facilitates the analysis of Agr allomorphy that will be discussed in chapter 3, and knowing the minimum possible height of Agr is also helpful for pinning down the exact height of agreement in chapter 4.

Chapter 3

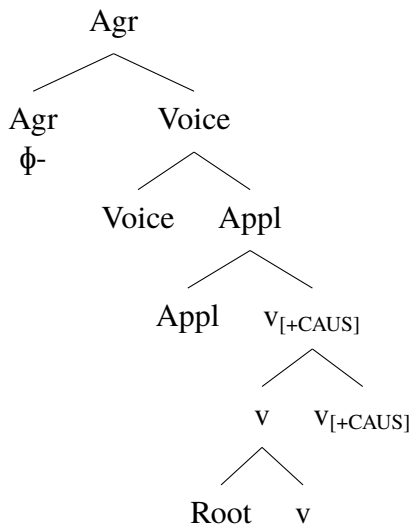
The allomorphy of Uab Meto subject-agreement prefixes: Structural adjacency, not linear

3.1 Introduction and summary of the chapter

3.1.1 Background on allomorphy research

A major topic of research in the allomorphy literature over the years has been figuring out the conditions under which a morpheme or set of morpheme can condition allomorphy on another morpheme. This broad topic can be further subdivided into several different research areas, as discussed below. In all of these areas, different works make very different predictions about the possibilities for allomorphic conditioning. This can be illustrated with the structure in (152), which is one of the verbal-complex structures that will be relevant in this chapter.

(152)



Research area 1 concerns the **types of structural or linear locality** that morphemes must have to one another. Embick (2010, 2015) takes the view that morphemes must be phonologically adjacent, either at the outset or created via Pruning of null intervening morphemes. If all morphemes in (152) are overt, then the Root and Appl should be able to condition allomorphy on each other, and v and $v_{[+CAUS]}$ should be able to condition allomorphy on each other, but allomorphic conditioning between $v_{[+CAUS]}$ and Appl should be impossible. If everything other than Agr and the root were null, one could make Agr and the Root linearly adjacent with Pruning. However, if the root is always overt, nothing could make $v_{[+CAUS]}$ and Agr linearly adjacent, even if Appl and Voice were both null. Structural adjacency is not necessary if there is already linear adjacency before any Pruning. Similarly, Gribanova & Harizanov (2017) argue that structural adjacency is not needed if the relevant morphemes are null, but linear adjacency is needed, along the lines of Embick (2015), but without Pruning. Paster (2009) has a more expansive view, arguing that adjacent morphemes or whole multi-morpheme stems to which an affix attaches can condition allomorphy. This would allow a feature relevant to the whole stem up to Voice (e.g. syllable count) to condition allomorphy on Agr. Crucially though, the stem as a whole is linearly adjacent to Agr. There should be no cases of a prefix conditioning allomorphy on a suffix, or vice versa, without the involvement of linearly intervening material in the conditioning. Bobaljik (2000) is even more permissive, allowing prefixes and suffixes to condition allomorphy on each other. Neither linear nor structural adjacency is needed. This would allow, for example, Agr and v to condition allomorphy on each other, even without Pruning. Bobaljik (2012) revises this a bit to say root allomorphy must be conditioned by structurally adjacent morphemes, but not affixal allomorphy. Merchant (2015) has a distinct theory. Building on Svenonius (2012), he suggests that a sequence or *span* of adjacent morphemes can condition allomorphy on another morpheme or span of adjacent morphemes. A span of adjacent morphemes can also be targeted for Vocabulary Insertion. The heads in a span must be *structurally* adjacent. Merchant (2015) is open to the idea of Pruning out or Obliterating null morphemes that have no role in allomorphic conditioning to create structural adjacency. Finally, there are theories that eschew the need for adjacency and instead posit less restrictive domains. Moskal & Smith (2016) argue that any morphemes within the same cyclic domain with a complex head can condition allomorphy on each other. The question of cyclic domains in Uab Meto is unresolved, but this would presumably allow for allomorphic interactions between some pairs of morphemes that are neither linearly nor structurally adjacent. Perhaps the most permissive theory is that of Choi & Harley (2019), which allows for any morpheme within a complex head to condition allomorphy on any other morpheme in that complex head. (152) is a complex head, so in theory all of these morphemes would be able to interact.

Research area 2 concerns the **types of allomorphic conditioning** that are possible in different structural configurations. These types describe the conditioning morpheme, not the conditioned morpheme. Different types of allomorphic conditioning include phonological (based on features pertaining to sounds, surprasegmentals, syllables, etc.), grammatical (morphosyntactic features like tense, aspect, person/number, case, etc.), and lexical (particular roots, can be considered a subtype of grammatical conditioning). Bobaljik (2000) famously argues that Vocabulary Insertion (VI) overwrites grammatical information. If you assume that VI starts at the root and proceeds outwards, then morphemes that are lower than the one in question can only supply phonological conditioning,

while ones that are higher can only supply grammatical conditioning. By contrast, Harizanov & Gribanova (2014) and Gribanova & Harizanov (2017) find evidence that allomorphy conditioned by lower heads can be either phonological or grammatical in nature. Therefore, VI must not overwrite grammatical information. Embick (2015) takes the intermediate stance that VI does not overwrite grammatical information by default, though it may happen in some cases. Therefore, he is open to the possibility of inward-sensitive grammatically conditioned allomorphy. Given that Agr is the highest head in (152), Bobaljik (2000) would predict that only phonological conditioning of its allomorphy by lower heads is possible, while Harizanov & Gribanova (2014) and Gribanova & Harizanov (2017) would allow both phonological and grammatical conditioning.

Research area 3 concerns **how to rank competing conditioning factors**. In Distributed Morphology, one can choose allomorphs (or vocabulary items in general) based on the Subset Principle (Halle & Marantz 1993). Assuming features on the relevant node itself are equal, the allomorph that corresponds to the most features in the conditioning environment is selected. This is the most specific choice. But what if you have allomorphs based on phonological features vs. grammatical features, where there are no logical subsets? McCarthy & Prince (1993) propose in the Optimality Theory framework that phonological constraints outrank morphological (i.e. grammatical) ones: P » M. Harizanov & Gribanova (2014) and Gribanova & Harizanov (2017), reformulating McCarthy & Prince (1993) for Distributed Morphology, suggest that phonological context is more specific than grammatical context. Paster (2009) argues against P » M-style approaches, arguing that morphology and phonology are not active at the same during the course of a derivation. She further argues that known cases of seemingly phonologically anti-optimizing allomorphy suggest that a subcategorization approach is more appropriate. Allomorphs can subcategorize for lexical, grammatical, and phonological aspects. It is unclear how to decide between allomorphs when these aspects conflict. Perhaps entries could be designed with a combination of lexical, grammatical, and/or phonological factors such that one always wins based on the Subset Principle.

3.1.2 Uab Meto allomorphy

This chapter seeks to test the predictions of these various theories on patterns of allomorphy displayed in Uab Meto. As discussed in previous chapters, Uab Meto is typologically unusual among Austronesian languages in general, but typical of languages of the Lesser Sunda Islands in southeastern Indonesia, in having obligatory verb agreement in person and number with subjects (Blust 2013: 88). Some examples are provided in (153). There is no finiteness distinction in the language, so default 3rd-person agreement is used when there is no controller, both in dictionary entries (154a) and wordlist elicitation (154b). Verbal agreement is underlined in these examples and every other example in this dissertation.

(153) a. Ina *(**n-**)móóf. *Iin móóf.
3SG.NOM *(3-)fall
'He fell.' (YEK; elic. May 20, 2021)

b. Hoo *(**mu-**)sae-b kau.
2SG.NOM *(2SG-)go.up-CAUS 1SG.ACC
'You raise me.' (YEK; elic. May 19, 2021)

(154) a. **n-**hae
3-tired
'tired, exhausted'
(Manhitu 2007: 6)

b. **na-**baak
3-steal
'steal'
(YEK; AOZ2019-WORDLIST001, line 72)

In addition to demonstrating the pervasiveness and obligatoriness of verbal agreement in Uab Meto, these examples also illustrate the phenomenon that is the main focus of this chapter: Uab Meto has two sets of agreement prefixes, an "asyllabic" C- set consisting of just a consonant and a "syllabic" CV- set consisting of the same consonant and a following vowel. The two sets are illustrated in the examples in (154), where *hae* 'tired, exhausted' takes the asyllabic 3rd-person prefix *n-* while *baka*/*baak* 'steal' takes the syllabic 3rd-person prefix *na-*. The full paradigm is provided in Table 3.1. This set of alternations between C- and CV- is analyzed as a case of allomorphy due to the lack of a regular phonological explanation for it.

		SG		PL	
		asyll.	**syll.**	**asyll.**	**syll.**
1ST	**INC**			t-	ta-
	EXC	'-	'u-	m-	mi-
2ND		m-	mu-	m-	mi-
3RD		n-	na-	n-	na-

Table 3.1: Uab Meto verbal agreement prefixes

There are a variety of factors that affect the choice of agreement prefix allomorph (Edwards 2020: 440). Some are phonological, like all CC-initial stems taking the syllabic prefixes (155a) and all V-initial stems taking the asyllabic allomorphs (155b). Among CV-initial stems some factors are phonological, such as all stems of 3+ syllables taking asyllabic prefixes (156), and others are grammatical, such as nearly all causativized verbs taking syllabic prefixes (157a vs. 157b). There are also some cases of lexical idiosyncrasy, such as the verb *Vma*/*VVm* 'come', which primarily shows agreement through vowel changes rather than the usual prefixes (158).

(155) a. Iin **na-snaas**.
3SG.NOM 3-stop
'He stopped.'
(YAF; AOZ2019-MON004, line 313)

b. Iin **n-o'en** kau, **n-aak** Lamber?
3SG.NOM 3-call 1SG.ACC 3-say Lamber
'He called me, said "Lamber"?'
(LTK; AOZ2019-MON011, line 173)

(156) Ina **n-'eusfaan**.
3SG.NOM 3-sneeze
'He/She sneezes. (Steinhauer 1993: 135)

(157) a. Ina **n-took**.
3SG.NOM 3-sit
'He/she sits.'
(YEK/NSK; elic. Oct. 27, 2021)

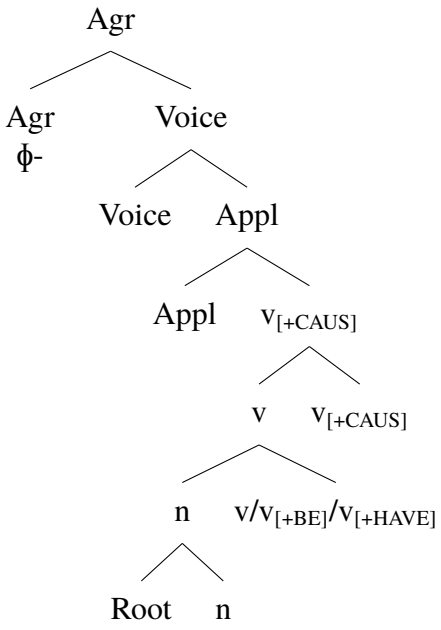
b. Iin **na-toko-b** kau.
3SG.NOM 3-sit-CAUS 1SG.ACC
'He/she seated me.'
(YEK/NSK; elic. Oct. 27, 2021)

(158) a. Hoo **óóm**.
2SG.NOM 2SG.come
'You (sg.) come.'
(YEK; elic. Jul. 15, 2019)

b. Hai **éém**.
1PL.EXC.NOM 1PL.EXC.come
'We (exc.) come.'
(YEK; elic. Jul. 15, 2019)

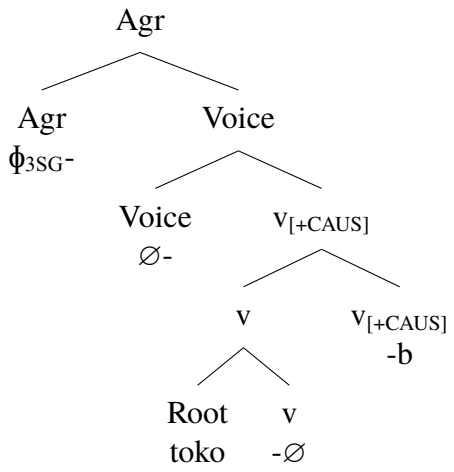
The examples in (157) illustrates one of the main points to be made in this chapter. Regarding **research area 1**, these examples suggest that allomorphy can be conditioned by a morpheme that is not linearly adjacent. Causative v ($v_{[+CAUS]}$) is always linearly separated from Agr by at least the root, but nevertheless it is able to condition the syllabic Agr prefix *na-*. Even though linear adjacency is not present, in this case there is *structural* adjacency. This chapter will argue that Uab Meto agreement-prefix allomorphy depends on conditioning by structurally adjacent morphemes, either via the initial structure or through the Obliteration (Arregi & Nevins 2007, 2012) of null, featurally unmarked interveners. This is very similar to the "radical Pruning" of Embick (2010, 2015), but it is interleaved with Vocabulary Insertion, rather than occurring before it based exclusively on grammatical features. Chapter 2 argued for the verbal-complex structure in (159), where agreement is in an independent Agr projection that is higher than Voice, which is higher than v, which is higher than the root. These projections are present in every verbal complex. $v_{[+CAUS]}$ is only present in causativized verbs; n is only present in denominal verbs; and Appl is only present in causativized transitives. When present, $v_{[+CAUS]}$ is above v, n is right above the root, and Appl is between Voice and $v_{[+CAUS]}$. "Default" v combines with and verbalizes roots. It alternates with $v_{[+BE]}$ and $v_{[+HAVE]}$, which combine with n to form denominal verbs (Tan 2023).

(159)

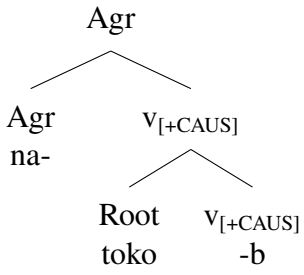


In a case like (157b), Voice is null, so it is Obliterated, causing $v_{[+CAUS]}$ to be structurally adjacent to Agr. This allows $v_{[+CAUS]}$ to condition syllabic Agr prefixes, as shown in (160).

(160) a. Before Obliteration



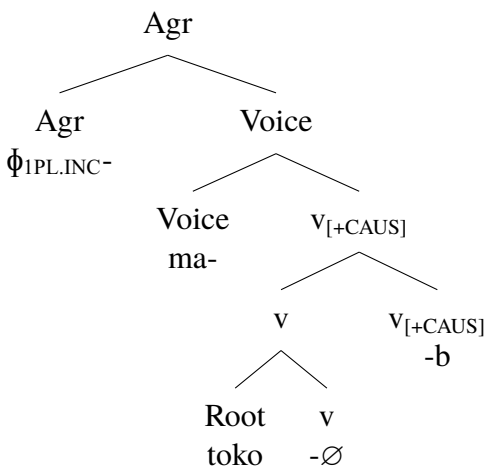
b. After Obliteration



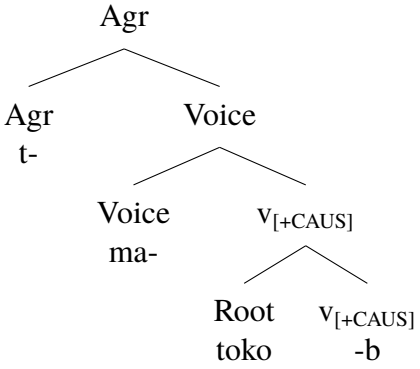
However, if Voice is overt, as with deobjective *ma-* in (161), it cannot be Obliterated. This prevents $v_{[+CAUS]}$ from being structurally adjacent to Agr, and therefore, it cannot condition syllabic Agr, as shown in (162). In addition to showing that structural intervention prevents the conditioning of allomorphy, the fact that phonological material in Voice is present to block allomorphy on Agr conditoned by $v_{[+CAUS]}$ supports the standard assumption that Vocabulary Insertion proceeds root-outwards (Bobaljik 2000).

(161) Hita t-**ma-**toko**-b**.
1PL.INC.NOM 1PL.INC-DEOB-sit-CAUS
'We seat each other.' (YEK/NSK; elic. Dec. 8, 2021)

(162) a. Before Obliteration

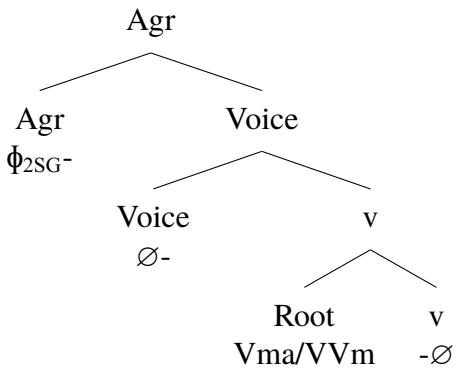


b. After Obliteration

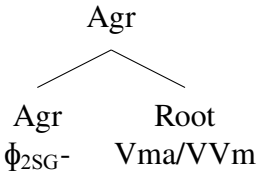


Obliteration is also useful for deriving verbs where it is not possible to separately parse an Agr prefix and root like *Vma/VVm* 'come'. Obliteration removes null nodes from the structure to create the condition of strict structural *and* linear adjacency under which Agr and the root can undergo Fusion into one node (Halle & Marantz 1993: 116), as shown in (163) for the verb in (158a).

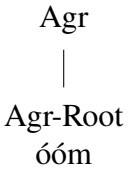
(163) a. Before Obliteration



b. After Obliteration



c. After Fusion



Regarding **research area 2**, $v_{[+CAUS]}$ is not always overt (164); its conditioning of syllabic Agr is grammatical in nature. $v_{[+HAVE]}$ also conditions syllabic Agr and is never overt itself, though it can cause the deletion of the final consonant of C-finals stems to which it attaches; V-final stems are never affected. This means that for both $v_{[+CAUS]}$ and $v_{[+HAVE]}$, there are cases where they have no phonological presence. In order for this allomorphy to be possible, just as it is in cases like (160), inward-sensitive grammatically conditioned allomorphy must be permitted (Harizanov & Gribanova 2014) and therefore, Vocabulary Insertion must not overwrite grammatical information.

(164) a. Faat=be **n-móóf**.
stone=DEF 3-fall
'The stone fell.'
(YEK; elic. Oct. 6, 2021)

b. **Na-móóf-∅** fatu.
3-fall-CAUS stone
'He/she/someone dropped a stone.'
(YEK; elic. Oct. 6, 2021)

This chapter will ultimately argue that the asyllabic prefixes are the general default, except that stems of 3+ syllables also actively condition asyllabic prefixes due to a dispreference for forming quadrisyllabic or longer words when this can be avoided (Edwards 2020: 441; Tan 2023: 98). Meanwhile, the syllabic prefixes are conditioned by a variety of factors, including phonological (CC-initial stem), grammatical (the presence of $v_{[+CAUS]}$ or $v_{[+HAVE]}$), and lexical (a few roots like *ha/ah* 'eat' and *tuin* 'follow'). This is shown in (165). This analysis is derived from descriptive insights in Edwards (2020) and Tan (2023), but the theoretical side is quite different.

(165) a. Agr $\longleftrightarrow$ CV- / _CC, $v_{[+CAUS]}$, $v_{[+HAVE]}$, *ha/ah* 'eat', *tuin* 'follow', maybe other roots
b. Agr $\longleftrightarrow$ C- / _ σσσ+ and elsewhere

The various conditioning factors mentioned in (165) are not mutually exclusive and thus can conflict. Regarding **research area 3**, stems of 3+ syllables can be causativized with a $v_{[+CAUS]}$ suffix like *-b*, but these stems take asyllabic prefixes even when causativized (166). In other words, the length of the stem overrides the conditioning for a syllabic prefix by $v_{[+CAUS]}$, unlike with disyllabic stems (157b). This provides evidence for an idea like P » M (McCarthy & Prince 1993) or phonological context being more specific than grammatical context (Harizanov & Gribanova 2014). This also shows that whole multi-morphemic stems can condition allomorphy (Paster 2009, Merchant 2015). In (166a), no individual morpheme is 3+ syllables, but the stem as a whole is, and that is what matters for blocking syllabic Agr. This indicates that adjacency can be evaluated on the basis of larger constituents, not just individual morphemes.

(166) a. **n-'oe-meta-b**
3-water-black-CAUS
'make dirty' (Tan 2023: 328)

b. Hoo **m-haumaka-b** kau.
2SG.NOM 2SG-near-CAUS 1SG.ACC
'You make me near (you).' (YEK; elic. Jan. 13, 2024)

3.1.3 Structure of the chapter

The rest of this chapter proceeds as follows. **Section 3.2** will describe the various phonological, grammatical, and lexical factors that affect the choice of agreement-prefix allomorph, drawing to a large degree on the description presented in Edwards (2020), but with mostly original data to confirm that the patterns he observes in the Kotos Amarasi variety of Uab Meto extend to the Miomafo variety. This empirical foundation will set the stage for a theoretical analysis. The analysis that will be presented is largely based on the principles of structural adjacency and the possibility to create it via the Obliteration (Arregi & Nevins 2007, 2012) of null intervening morphemes, so **section 3.3** discusses these concepts in broader theoretical terms, as well as discussing Uab Meto syllable and foot structure, because syllable count is relevant to agreement-prefix allomorphy, but determining the syllable count of an Uab Meto word is not always the most straightforward due to processes

like metathesis and diphthongization. **Section 3.4** then provides the analysis, demonstrating how limiting allomorphic conditioning to structurally adjacent morphemes and stems, combined with Obliteration, can account for the various conditioning factors that are observed in this allomorphy. **Section 3.5** will discuss three potential alternative analyses, namely overt phonological conditioning, covert phonological conditioning (Tan 2023) and Spell-Out domains, as well as the pros and cons of these approaches. It also features a discussion of the observations that any analysis of this allomorphy needs to capture. Finally, **section 3.6** discusses theoretical implications and concludes.

3.2 Agreement prefix allomorphy: Description

As noted in Table 3.1, repeated as Table 3.2, there are two sets of subject-agreement prefixes in Uab Meto, an asyllabic (C-) set and a syllabic (CV-) set consisting of the consonant from the asyllabic set + a following vowel. This total overlap in the consonants makes clear that there is a formal relationship between the sets. Therefore, the asyllabic and syllabic prefixes for a given person/number combination should be treated as allomorphs of the same morpheme.

		SG		PL	
		asyll.	**syll.**	**asyll.**	**syll.**
1ST	**INC**			t-	ta-
	EXC	’-	’u-	m-	mi-
2ND		m-	mu-	m-	mi-
3RD		n-	na-	n-	na-

Table 3.2: Uab Meto agreement prefixes (repeated)

Allomorphy between the asyllabic and syllabic sets is conditioned in different ways by the root, v, and Voice. I will describe what the relevant factors are below. Data will mostly come from the Miomafo variety, but the description derives heavily from Edwards (2020), who observes the same set of factors and resulting patterns in Amarasi.

3.2.1 Phonological factors: Stem shape

The main factor conditioning the choice of Agr-prefix allomorph is the phonological shape of the stem. Phonological conditioning occurs when Agr attaches to a stem just containing an overt V- or CC-initial root. All V-initial roots take the asyllabic Agr prefixes (167), and all CC-initial roots take the syllabic ones (168) (Edwards 2020: 440).

(167) a. Iin **n-o’en** kau, **n-aak** Lamber?
3SG.NOM 3-call 1SG.ACC 3-say Lamber
‘He called me, said “Lamber”?’ (LTK; AOZ2019-MON011, line 173)

b. Au neon unu' le' au **'-ita** bnao kolo.
1SG.NOM day first REL 1SG.NOM 1SG-see boat bird
'(That was) my first time that I saw an airplane.' (YAF; AOZ2019-MON004, line 61)

(168) a. Iin **na-snaas**.
3SG.NOM 3-stop
'He stopped.'
(YAF; AOZ2019-MON004, line 313)

b. Au **'u-'koo** *desa* Oelneke.
1SG.NOM 1SG-from village Oelneke
'I am from the village of Oelneke.'
(YEK; AOZ2019-MON002, line 3)

CV-initial roots are phonologically unpredictable due to lexical and grammatical factors. Therefore, determining the phonological default for stems of this shape is more difficult, but two pieces of evidence suggest that the asyllabic prefixes are the default. First, ∼75% of native disyllabic CV-initial roots take the asyllabic prefixes. Second, and most revealingly, all CV-initial loanword roots take the asyllabic prefixes (169) (Edwards 2020: 440). Id. = Indonesian

(169) a. Pleent=e **n-*'utus*** kau '-nao on paha 'naek. (Id. *utus* 'dispatch')
government=DEF 3-dispatch 1SG.ACC 1SG-go IRR.LOC land big
'The government sent me to the big city.' (YAF; AOZ2019-MON004, lines 73-74)

b. Hoo **m-*putal*** oot=be he m-éék=je n-óé mee? (Id. *putar* 'turn')
2SG.NOM 2SG-turn car=DEF IRR 2SG-bring=3SG.ACC 3-to which
'You're turning the car in order to bring it where?'
(LTK; AOZ2019-MON011, line 322)

Of course, loanword roots that begin with a CC cluster (170) take the syllabic prefixes like native CC-initial roots, showing that this phonological conditioning is active for both etymological root types. Interestingly, for V-initial roots, I am not aware of any loanword verb roots that are this shape, despite potential candidates from Indonesian like *utus* 'dispatch'. I suspect that this is because these roots were imported as complete words, and Uab Meto requires all words to begin with a consonant (Steinhauer 1996b: 479, Edwards 2017, Edwards 2020: 120). This property of the language will be discussed in section 3.5.

(170) Olas ii au **'u-*skool*** es Kupang. (Dutch *school* 'school')
time DEM.PROX 1SG.NOM 1SG-school IPFV.LOC Kupang
'Now I am studying in Kupang.' (YEK; AOZ2019-MON001, line 4)

The last phonological factor is that all non-reduplicated roots and morphologically complex stems of three or more syllables take asyllabic prefixes. (171a-b) shows two roots without any overt Voice or v affixes: quadrisyllabic *'eusfani/'eusfaan* 'sneeze' and trisyllabic *kumani/kumaen* 'smile'. (171c) shows a quadrisyllabic complex stem consisting of two disyllabic roots *'oe* 'water' and *metan* 'black'. This conditioning of asyllabic prefixes by stems of 3+ syllables appears to arise from dispreference for forming quadrisyllabic words when possible (Tan 2023: 98) or such stems being larger than a single foot (Edwards 2020: 441). Syllable and foot structure will be discussed in section 3.3.2.

(171) a. Ina **n-'eusfaan**.
3SG.NOM 3-sneeze
'He/She sneezes.
(Steinhauer 1993: 135)

b. Sina **n-kumani**=n.
3PL 3-smile=PL
'They smile.'
(Steinhauer 1993: 134)

c. **n-'oe-metan**
3-water-black
'be dirty'
(Tan 2023: 328)

3.2.2 Lexical idiosyncrasy

The choice of agreement-prefix allomorph becomes more complicated among disyllabic native CV-initial roots. This is where interactions between the root, v, and Voice, become evident. From a distributional standpoint, the majority of native CV-initial roots take the asyllabic prefixes, about 75% in the Kotos Amarasi dialect corpus of Edwards (2020: 440). I do not have the same sort of data for the Miomafo variety on which this chapter is based, but in my experience the varieties almost always match in their choice of agreement-prefix allomorph for a given root/stem, suggesting that the Miomafo distribution is quite similar. Here the choice between the two sets depends on a variety of factors and can appear lexically idiosyncratic. For example, two transitive verbs *tui* 'write' and *tuin* 'follow' that differ only in that one has a coda [n] take prefixes from different sets (172). Tan (2023) even reports a few homophonous roots that differ in their choice (173). We will see in section 3.4 that some, but not all, of this variation can be explained via grammatical conditioning from $v_{[+CAUS]}$ or $v_{[+HAVE]}$, but for now, examples like these show that phonology cannot fully explain the choice of Agr prefix.

(172) a. Au **'-tui** au kaan-k=e.
1SG.NOM 1SG-write 1SG.NOM name-1SG.INAL=DEF
'I wrote my name.' (YEK; elic. Nov. 24, 2019)

b. Au **'u-tuin** *lomba* '-bii Jakarta.
1SG.NOM 1SG-follow contest 1SG-RLS.LOC Jakarta
'I joined the contest in Jakarta.' (YAF; AOZ2019-MON004, line 78)

(173) a. **n-fua**
3-worship
'does traditional worship'
(Tan 2023: 102)

b. **na-fua**
3-fruit
'bears fruit' (Tan 2023: 102)

c. **n-sae**
3-rise
'rises, ascends'
(Tan 2023: 100)

d. **na-sae**
3-miss
'to miss (e.g. an event)' (Tan 2023: 100)

Beyond examples like those in (172) and (173), there are three verbs whose agreement pattern are clearly lexically idiosyncratic. First, there is a somewhat irregular verb *ha/ah* 'eat' that takes syllabic prefixes even when it has metathesized to become the V-initial *ah* (174), creating a rare violation of a general constraint against vowel hiatus across morpheme boundaries in Uab Meto (i.e. *V-V) (Tan 2023: 97). This verb is exceptional in that *ha/ah* may be the only monosyllabic (i.e. one vowel) lexical root in the language (Edwards 2020: 440). Relatedly, Uab Meto has consistent stress on

the penultimate syllable of the word, excluding any enclitics (Edwards 2020: 111-113), so this is the only verb to my knowledge where the agreement prefix is audibly stressed, rather than a vowel in the root. How these properties might explain Agr allomorphy associated with this verb will be revisited in section 3.4.

(174) a. Au **'u-ah**.
1SG.NOM 1SG-eat
'I eat.' (YEK; elic. Jul. 17, 2019)

b. Hoo **mu-ah**.
2SG.NOM 2SG-eat
'You (sg.) eat.'
(YEK; elic. Jul. 17, 2019)

c. Iin **na-ah**.
3SG.NOM 3-eat
'He/she/it eats.'
(YEK; elic. Jul. 17, 2019)

d. Hiit **ta-ah**.
1PL.INC.NOM 1PL.INC-eat
'We (inc.) eat.'
(YEK; elic. Jul. 17, 2019)

e. Hai **mi-ah**.
1PL.EXC.NOM 1PL.EXC-eat
'We (exc.) eat.'
(YEK; elic. Jul. 17, 2019)

f. Hii **mi-ah**.
2PL.NOM 2PL-eat
'You (pl.) eat.'
(YEK; elic. Jul. 17, 2019)

g. Siin **na-ha**=n.
3PL 3-eat=PL
'They eat.' (YEK; elic. Jul. 17, 2019)

Second, there are two verbs approximately meaning 'come' that have irregular conjugations. The first is only mildly irregular. The root is usually two high back vowels [uu], while the *1pl.exc/2pl* form has the high front vowel [ii]. The verb otherwise is normal as far as agreement is concerned. This verb is VV-final, so like other VV-final roots, it does not have distinct metathesized forms (Steinhauer 1996b: 480). As with other verbs, the 3PL form varies in whether the plural enclitic *=(i)n/=nun* attaches to it.

(175) a. Au **'-uu**.
1SG.NOM 1SG-come
'I come.' (YEK; elic. Aug. 1, 2019)

b. Hoo **m-uu**.
2SG.NOM 2SG-come
'You (sg.) come.' (YEK; elic. Aug. 1, 2019)

c. Iin **n-uu**.
3SG.NOM 3-come
'He/she/it comes.' (YEK; elic. Aug. 1, 2019)

d. Hiit **t-uu**.
1PL.INC.NOM 1PL.INC-come
'We (inc.) come.' (YEK; elic. Aug. 1, 2019)

e. Hai **m-ii**.
1PL.EXC.NOM 1PL.EXC-come
'We (exc.) come.' (YEK; elic. Aug. 1, 2019)

f. Hii **m-ii**.
2PL.NOM 2PL-come
'You (pl.) come.' (YEK; elic. Aug. 1, 2019)

g. Siin **n-uu/n-uu**=n/**n-uu**=nun.
3PL 3-come/3-come=PL/3-come=PL
'They come.' (YEK; elic. Aug. 1, 2019)

The second verb meaning 'come' is quite irregular. It has a template that could be described as (C)Vma/(C)VVm. It dispels with many of the usual prefixes, showing agreement primarily through vowel changes. A full paradigm is provided in (176), mostly showing the metathesized (C)VVm forms that assimilate the [a] of the unmetathesized (C)Vma forms into the preceding vowel. (176c) shows both, while (176g) only shows the unmetathesized 3PL form. The same forms are reported in Steinhauer (1993: 156). To fill in some gaps, the unmetathesized 1SG/2SG and 1PL.EXC/2PL forms are provided in (177a) and (177b) respectively, and the metathesized 3PL form is provided in (177c).

(176) a. Au **óóm**.
1SG.NOM 1SG.come
'I come.' (YEK; elic. Jul. 15, 2019)

b. Hoo **óóm**.
2SG.NOM 2SG.come
'You (sg.) come.'
(YEK; elic. Jul. 15, 2019)

c. Iin **neem/nema**.
3SG.NOM 3.come/3.come
'He/she/it comes.'
(YEK; elic. Jul. 15, 2019)

d. Hiit **teem**.
1PL.INC.NOM 1PL.INC.come
'We (inc.) come.'
(YEK; elic. Jul. 15, 2019)

e. Hai **éém**.
1PL.EXC.NOM 1PL.EXC.come
'We (exc.) come.'
(YEK; elic. Jul. 15, 2019)

f. Hii **éém**.
2PL.NOM 2PL.come
'You (pl.) come.'
(YEK; elic. Jul. 15, 2019)

g. Siin **neem/nema**=n.
3PL 3.come/3.come=PL
'They come.' (YEK; elic. Jul. 15, 2019)

(177) a. Au **óma** '-tee ii funan téón.
1SG.NOM 1SG.come 1SG-arrive DEM.PROX moon three
'I arrived here for three months.' (YAF; AOZ2019-MON004, line 103)

b. **Éma**=t na-fini-b kai m-fani m-bii Flores.
1PL.EXC.come=SET 3-pass-CAUS 1PL.EXC.ACC 1PL.EXC-return 1PL.EXC-RLS.LOC Flores
'Upon arriving there we were made to continue back to Flores." (LTK; AOZ2019-MON011, line 371-372)

c. =m siin **neem**=n=en=ate
=and 3PL 3.come=PL=INCP=SET
'so they could (start to) come back' (LTK; AOZ2019-MON011, line 226)

The 1PL.EXC/2PL form *éma/éem* sometimes surfaces as *aima/aim*, as shown in (178). The unmetathesized *aima* is shown in (178a), and the metathesized *aim* is shown in (178b). Notice that (178a) is uttered by the same speaker, LTK, who uses the *éma/éem* form in (177b), suggesting that these forms exist in variation within speakers' grammars. I am aware of some Uab Meto speakers, especially those of the Fatule'u variety (Edwards 2021: 144), using an alternative 1SG/2SG form *auma/aum*, but I am yet to encounter this 1SG/2SG form in the speech of Miomafo speakers other than its being mentioned as an option in an elicitation context (178c).

(178) a. ∅-mépó m-bii naan, ∅-méép ∅-méép ∅-mépó=m
1PL.EXC-work 1PL.EXC-RLS.LOC DEM.DIST 1PL.EXC-work 1PL.EXC-work 1PL.EXC-work
mi-lali=te m-faen **aima**=m ...
1PL.EXC-finish=SET 1PL.EXC-return 1PL.EXC.come=and ...
'We worked there, worked worked worked until we finished, and then we went back and...' (LTK; AOZ2019-MON011, line 365)[1]

b. Hoe, **aim** he ta-bua he t-moe' hiit alat|a
hey 2PL.come IRR 1PL.INC-clump IRR 1PL.INC-do 1PL.INC.NOM custom|EPEN
m-bii=n hiit kuan.
3-RLS.LOC=DAT 1PL.INC.NOM village
'Hey, come gather so that we do our custom in our village.'
(KSF; AOZ2019-MON003, line 35)

c. Hoo {**óóm** / **aum**} m-eu kau.
2SG.NOM {2SG.come / 2SG.come} 2SG-to 1SG.ACC
'You come to me.' (YEK; elic. Sep. 8, 2021)

3.2.3 Grammatical factors: $v_{[+CAUS]}$ and $v_{[+HAVE]}$

Though there are several cases of lexically conditioned allomorphy of Agr, I will argue that the choice of agreement prefix allomorph for disyllabic CV-initial roots and stems can typically be attributed to the presence of one of two v heads, $v_{[+CAUS]}$ or $v_{[+HAVE]}$.

Causativized disyllabic roots take syllabic Agr prefixes, even if the base verb takes asyllabic ones (179). Many more examples can be found in section 2.3.1. This alternation includes loanwords (180a vs. 180b), showing the productive nature of this conditioning. Roots that already take syllabic prefixes in their base form continue to take them when causativized (181). Notably, this switch to syllabic prefixes for causativization still occurs even when there is no overt causative suffix (182), indicating that the grammar of causativization, rather than any particular morphological manifestation, is the relevant factor.

[1] See section 3.2.5 for discussion of when asyllabic (C-) agreement prefixes are null.

(179) a. Ina **n-took**.
3SG.NOM 3-sit
'He/she sits.'
(YEK/NSK; elic. Oct. 27, 2021)

b. Iin **na-toko-b** kau.
3SG.NOM 3-sit-CAUS 1SG.ACC
'He/she seated me.'
(YEK/NSK; elic. Oct. 27, 2021)

(180) a. Hoo **m-*rees*** *surat*.
2SG.NOM 2SG-read letter
'You read a letter/book.' (Tan 2023: 139)

b. Hoo **mu-*resa*-b** siin *surat*. (Dutch *lezen* 'read')
2SG.NOM 2SG-read-CAUS 3PL letter
'You make them read a letter/book.' (Tan 2023: 139)

(181) a. Au **'u-mnau** koo.
1SG.NOM 1SG-remember 2SG.ACC
'I remember you.' (YEK/NSK; elic. Feb. 2, 2022)

b. Au **'u-mnau-b** koo he m-soos manu.
1SG.NOM 1SG-remember-CAUS 2SG.ACC IRR 2SG-buy chicken
'I remind you to buy a chicken.' (YEK; elic. Feb. 2, 2022)

(182) a. Au **'-móuf**.
1SG.NOM 1SG-fall
'I fall.' (Benu 2016: 153)

b. Hoo **mu-móuf-∅** kau.
2SG.NOM 2SG-fall-CAUS 1SG.ACC
'You make me fall.'/'You drop me.' (Benu 2016: 153)[2]

Furthermore, many of the ∼25% of non-causativized disyllabic "roots" that take syllabic Agr prefixes are denominal verbs that combine with $v_{[+HAVE]}$. Such denominal verbs are syntactically unergative (183a) or transitive (183b), and they contrast with denominals that combine with $v_{[+BE]}$, which take asyllabic Agr prefixes and are syntactically unaccusative (183c). More examples and the nominal sources of the verbs in (183) can be found in section 2.2.3.

(183) a. On le' hai m-méóp *kelompok*=at hai **mi-bua**.
IRR.LOC REL 1PL.EXC.NOM 1PL.EXC-work group=SET 1PL.EXC.NOM 1PL.EXC-clump
'Since we work as a team, we gather.' (HNK; AOZ2019-MON006, line 31)

b. Sekau ees **na-tiik** kau?
who FOC 3-heel 1SG.ACC
'Who kicked me?'
(YEK/NSK; elic. Jan. 12, 2022)

c. Hoo **m-'aet**.
2SG.NOM 2SG-servant
'You are a servant.'
(Tan 2023: 184)

Denominal verbs can be causativized, and they behave the same way as other verbs when this occurs. Both those that take syllabic Agr prefixes in their non-causativized form (183a) and those

[2]Uab Meto does not have a standardized orthography. *móuf* is a more phonemic spelling for the metathesized form of *mófu* /mɔfu/ 'fall', while *móóf*, as in (63) and (71), is closer to the Miomafo pronunciation [mo:f]. /ɔ/ and /u/ assimilate to each other in the Miomafo variety.

that take asyllabic Agr prefixes in their non-causativized form (183c) take syllabic Agr prefixes when causativized (184).

(184) a. **Na-bua-b**=e n-jael Oelneke.
3-clump-CAUS=3SG.ACC 3-become Oelneke
'It was gathered together to become Oelneke.' (YAF; AOZ2019-MON004, line 258)

b. **na-'ate-∅**
3-servant-CAUS
'put (someone) into servitude' (Tan 2023: 111)

3.2.4 Conflicting conditioning factors and their resolutions

The cases that we have seen so far with $v_{[+CAUS]}$ and $v_{[+HAVE]}$ do not reflect any competition with other conditioning factors. These heads get their way, and there is nothing to stop them. However, there are other cases where there is potential competition between these heads and other factors, leading to interesting results.

The first area of conflict is when V-initial stems are causativized. Uab Meto has a constraint against hiatus across morpheme boundaries (*V-V) and also a constraint against onsetless feet (Edwards 2020: 118). Asyllabic Agr prefixes can serve as the onset of the foot containing a verb root, but a syllabic prefix cannot fill this C slot. So there is a conflict between the phonological demand of the root for a single consonant and the grammatical demand of $v_{[+CAUS]}$ for a syllabic Agr prefix. Both are satisfied through the epenthesis of a [ʔ] between the syllabic Agr prefix and the root (185).

(185) a. Au **'u-'-inu-t** koo oel.
1SG.NOM 1SG-EPEN-drink-CAUS 2SG.ACC water
'I give you water.' (YEK; elic. Jul. 14, 2021)

b. Au **'u-'-éku-t** koo bolo.
1SG.NOM 1SG-EPEN-eat-CAUS 2SG.ACC cake
'I feed you cake.' (YEK/NSK; elic. Jul. 14, 2021)

c. Hoo **mu-'-aena-'** kau on ume.
2SG.NOM 2SG-EPEN-run-CAUS 1SG.NOM IRR.LOC house
'You run/take me home.' (YEK; elic. Oct. 20, 2021)

d. Au **'u-'-ami-b** koo faaf=jes.
1SG.NOM 1SG-EPEN-look.for-CAUS 2SG.ACC pig=one
'I tell you to look for a pig.' (YEK; elic. Feb. 2, 2024)

The second area of conflict is when stems of 3+ syllables are causativized. As noted in section 3.2.1, *all* verbal stems of 3+ syllables take asyllabic Agr prefixes. This includes monomorphemic roots (171a-b, 186a-b) and complex stems (186c) without any overt Voice or v affixes, as well as long stems with overt $v_{[+CAUS]}$ but no overt Voice (186d-f). Thus, a stem being 3+ syllables overrides causativization.

(186)
a. Hoo **m-haumaak** kau.
2SG.NOM 2SG-near 1SG.ACC
'You are near me.'
(YEK; elic. Jan. 13, 2024)

b. Au **'-kumaan**.
1SG.NOM 1SG-smile
'I smile.'
(YEK; elic. Jan. 24, 2024)

c. **n-'oe-metan**
3-water-black
'be dirty' (Tan 2023: 328)

d. Hoo **m-haumaka-b** kau.
2SG.NOM 2SG-near-CAUS 1SG.ACC
'You make me near (you).'
(YEK; elic. Jan. 13, 2024)

e. Au **'-kumani-b** koo.
1SG.NOM 1SG-smile-CAUS 2SG.ACC
'I make you smile.'
(YEK; elic. Jan. 24, 2024)

f. **n-'oe-meta-b**
3-water-black-CAUS
'make dirty' (Tan 2023: 328)

A related conflict occurs when denominal verbs that are part of a compound combine with $v_{[+HAVE]}$ (Tan 2023: 211). (187a-c) show base denominals, and (187d-f) show the same denominal verbs in compounds. The morphemes in these compounds are collectively quadrisyllabic, so the complex stem formed by them takes asyllabic Agr prefixes. (186) and (187) show that the length of the stem as evaluated over all morphemes prevails over $v_{[+CAUS]}$ and $v_{[+HAVE]}$.

(187)
a. Ika' nae **na-foo**.
fish DEM.DIST 3-smell
'That fish stinks.' (SRB/YFB/
YEK/NSK; elic. Jul. 2, 2022)

b. Li'ana' mee ees **na-tiik** koo?
child which FOC 3-heel 2SG.ACC
'Which child kicked you?'
(YEK/NSK; elic. Jan. 12, 2022)

c. **Na-bua** n-ook ah usi-f Noetoko.
3-clump 3-with FILL king-KIN Noetoko
'It joined with the king of Noetoko.'
(YAF; AOZ2019-MON004,
lines 270-272)

d. **n-foo méni**
3-smell fragrant
'smells fragrant'
(Tan 2023: 211)

e. **n-tiik roto**
3-heel thunder
'falls head over heels, tumbles'
(Tan 2023: 211)

f. Ina **m-bua 'nima-n**|a
3SG.NOM 3-clump arm-3SG.INAL|EPEN
m-bua hae-n.
3-clump leg-3SG.INAL
'He crosses his arms, crosses his legs.'
(HNK; AOZ2019-MON006, line 591)

The third and perhaps most interesting conflict arises when the overt Voice prefix deobjective *ma-* attaches to a stem containing $v_{[+CAUS]}$ (188), $v_{[+HAVE]}$ (189), or a root that lexically conditions syllabic agrement prefixes (190). The presence of deobjective *ma-* overrides the grammatical preference of $v_{[+CAUS]}$ *-b* and the null $v_{[+HAVE]}$, and an asyllabic agreement prefix is used. In the absence of *ma-*, $v_{[+CAUS]}$ (179b), $v_{[+HAVE]}$ (183b), and the relevant roots (125) successfully condition syllabic Agr prefixes.

(188) a. Hita t-**ma-**toko-**b**.
1PL.INC.NOM 1PL.INC-DEOB-SIT-CAUS
'We seat each other.'
(YEK/NSK; elic. Dec. 8, 2021)

b. Sina n-**ma-**took-**b**=in.
3PL 3-DEOB-SIT-CAUS=PL
'They seat each other.'
(YEK/NSK; elic. Dec. 8, 2021)

(189) a. Hita t-**ma-**tiik-∅.
1PL.INC.NOM 1PL.INC-DEOB-heel-$V_{[+HAVE]}$
'We kick each other.'
(YEK/NSK; elic. Feb. 2, 2022)

b. Sina n-**ma-**tika-∅=n.
3PL 3-DEOB-heel-$V_{[+HAVE]}$=PL
'They kick each other.'
(YEK; elic. Feb. 2, 2022)

(190) Hita t-**ma-**tuin.
1PL.INC.NOM 1PL.INC-DEOB-follow
'We follow each other.' (YEK; elic. Jan. 29, 2024)

The reader may have noticed that the verbs in (188) and (189) are all trisyllabic[3]. Therefore, one could attribute these verbs' taking asyllabic Agr prefixes to this fact, as was done for the verbs in (186). In fact, since nearly all roots are at least disyllabic, nearly all roots with deobjective *ma-* are at least trisyllabic. However, recall from (174) and surrounding discussion in section 3.2.2 that there is one monosyllabic root in the language, *ha/ah* 'eat', and this root takes syllabic Agr prefixes in its base use. For semantic reasons, this is not a verb that is commonly deobjectivized, but the form in (191) is generable and judged as grammatical. Notably, this form also has an asyllabic Agr prefix, even though the stem to which Agr attaches is only disyllabic. This is limited evidence, but it shows that the prefixing of deobjective *ma-* is a separate factor that must be considered in a full account of Uab Meto agreement-prefix allomorphy.

(191) Context: There are a pig and a dog, and they are both hungry. They see each other. The pig wants to eat the dog, and the dog wants to eat the pig.

@ Hita **t-ma-'-ah**.
1PL.INC.NOM 1PL.INC-DEOB-EPEN-eat
'We eat each other.' (YEK; elic. Jan. 13, 2024)

The last potential conflict that I can envision is when a trisyllabic (or longer) stem is also CC-initial. Instead of a conflict between a phonological factor and a grammatical one, this would be a conflict between two phonological ones. Unfortunately, such data is not available to me at this time, and is potentially non-existent. Tri- and quadrisyllabic stems are rare, and CC-initial stems are also uncommon. As a result of this, I am yet to encounter a stem that has both of these qualities in my own fieldwork. Tan (2023) also reports not being able to find a stem of this type, and I have not encountered one in any other work like Steinhauer (1993, 1996a,b) or Edwards (2016a, 2017, 2020, 2021). Though it cannot be confirmed, I suspect that such verbs would take the syllabic Agr prefixes. This is because Uab Meto has a strict constraint against three consonants in a row

[3](188a) and (189)b are transparently trisyllabic. The number of syllables is unchanged when the root metathesizes to its -VVC form in (188b) and (189)a, hence the double vowel in the orthography.

(*CCC). There are no words of which I am aware that have CCC sequences, and even across word boundaries, metathesis is blocked to avoid creating CCC sequences, as shown below for the roots *ita/iit* 'see' (192a vs. d), *fani/faen* 'return' (192b vs. e), and *ha/ah* 'eat' (192c vs. f).

(192) a. Au **'-iit** maan=bes.
1SG.NOM 1SG-see chicken=one
'I see a chicken.'
(YEK; elic. Feb. 2, 2022)

b. Au **'-faen** on ume.
1SG.NOM 1SG-return IRR.LOC house
'I return home.'
(YEK; AOZ2019-MON001, line 7)

c. Iin **na-ah** sisi.
3SG.NOMl 3-eat meat
'He/she eats meat.'
(YEK; elic. Nov. 3, 2021)

d. Au neon unu' le' au **'-ita** bnao kolo.
1SG.NOM day first REL 1SG.NOM 1SG-see boat bird
'(That was) my first time that I saw an airplane.' (YAF; AOZ2019-MON004, line 61)

e. Au **'-fani** '-tee ume.
1SG.NOM 1SG-return 1SG-arrive house
'I arrive home.'
(YEK; AOZ2019-MON001, line 7)

f. Iin fe' **na-ha** 'maka'.
3SG.NOM still 3-eat rice
'He/she is still eating rice.'
(YEK; elic. Aug. 25, 2021)

There are some stems that initially look like they would show how this conflict between being CC-initial and σσσ+ is resolved, but further inspection proves them to be unhelpful. The reader may recall from section 3.2.1 that all *non-reduplicated* stems of 3+ syllables take asyllabic Agr prefixes. This is because reduplication is exceptional in not impacting the choice of Agr-prefix allomorph, even though it adds a syllable to the stem. At first glance, an example like (193a) could be interpreted as showing that CC-initial prevails over σσσ+. The partially reduplicated stem *skakool* is trisyllabic[4], built from the disyllabic *skool* in (193b), and both take syllabic Agr. However, non-CC-initial stems with reduplication also take syllabic Agr when the corresponding non-reduplicated stem does so (194). Relatedly, non-CC-initial stems with reduplication take asyllabic Agr when the non-reduplicated stem does so (195). In all of these cases, the choice of agreement-prefix allomorph is the same as the one made for the corresponding non-reduplicated verb.

(193) a. **Mu-s<ka>∼kool** li'aan'=e msa=t *susal* ...
2SG-<school.RED>∼school child=DEF also=SET difficult
'If schooling your children is difficult (to afford)...'
(HNK; AOZ2019-MON006, line 430)

b. Olas ii au **'u-*skool*** es Kupang.
time DEM.PROX 1SG.NOM 1SG-school IPFV.LOC Kupang
'Now I am studying in Kupang.' (YEK; AOZ2019-MON001, line 4)

(194) a. lof hai m-ook mee=t **mi-ba∼bua=ba=ha**.
FUT 1PL.EXC.NOM 1PL.EXC-with which=SET 1PL.EXC-clump.RED∼gather=just=only

[4]See section 3.3.2 for discussion of how the syllable count of Uab Meto words is determined.

‘wherever we are, we are (there) together.’ (KSF; AOZ2019-MON003, line 100)

b. Hai **mi-bua** ok∼oke m-bii kuan=e.
1PL.EXC.NOM 1PL.EXC-clump all.RED∼all 1PL.EXC-RLS.LOC village=DEF
‘We all gathered together in the village.’ (YEK; AOZ2019-MON002, line 6)

(195) a. Hai m-éék le’ mui’t=in le’ hai
1PL.EXC.NOM 1PL.EXC-bring REL animal=PL REL 1PL.EXC.NOM
m-ka∼keen m-aan siin.
1PL.EXC-shoot.RED∼shoot 1PL.EXC-get 3PL
‘We brought the animals that we shot.’ (YEK; AOZ2019-MON002, line 81)

b. he hai esa **m-keen** ai’ hai ees mi-klété.
IRR 1PL.EXC.NOM FOC 1PL.EXC-shoot or 1PL.EXC.NOM FOC 1PL.EXC-slingshot
‘so that we can shoot or slingshot (animals)’ (YEK; AOZ2019-MON002, line 31)

One can attribute the irrelevance of reduplication to agreement-prefix allomorphy to the idea that reduplication in Uab Meto is a process that applies after Vocabulary insertion of all morphemes in a word, including agreement. The type of reduplication in these examples appears to target the consonant of the root before the first vowel and epenthesize /a/. However, there are other types of reduplication that target larger bases, such as entire initial CVC sequences (196).

(196) a. Au **’-hak∼hake** ’-bii=n Oe’sao.
1SG.NOM 1SG-stand.RED∼stand 1SG-RLS.LOC=DAT Oe’sao
‘I stood for a few hours in Oe’sao.’ (LTK; AOZ2019-MON011, line 7)

b. Hai m-nao n-oko **nok∼noka’.**
1PL.EXC.NOM 1PL.EXC-go 3-from morning.RED∼morning
‘We went in the morning.’ (YEK; AOZ2019-MON002, line 66)

Notably, when reduplicating the initial CV(C) of a verb where an asyllabic agreement prefix supplies the first C, the agreement prefix is reduplicated along with the initial V(C) of the root. (197a) shows a CVC example from the Amarasi variety, and (197a) shows a CV example from several varieties, including Miomafo. In order for the agreement prefix to be part of the reduplicated sequence, it must have undergone Vocabulary Insertion before reduplication applies. Thus, this allomorph selection happens before reduplication takes place.

(197) a. **t-ék∼t-éku**
1PL.INC-eat.RED∼1PL.INC-eat
‘(we inc.) eat’
(Edwards 2017: 430)

b. Too mfau=n **n-a∼n-aen.**
people many=PL 3-run.RED∼3-run
‘Many people run.’
(YEK/SRB/YFB; elic. Jun. 29, 2022)

3.2.5 Non-allomorphic alternations in asyllabic (C-) prefixes

As a final point, it should be noted that the asyllabic (C-) agreement prefixes also undergo some alternations in form, namely deletion and assimilation in certain contexts. However, this section

will show that these alternations are phonological in nature, not allomorphic. These alternations will thus ultimately be excluded from the analysis of allomorphy between the asyllabic (C-) and syllabic (CV-) agreement prefixes in section 3.4. The phonological nature of these alternations will be demonstrated below.

First, most asyllabic Agr delete when prefixed to a stem beginning with the same consonant, though they vary in frequency. As far as I can tell, prefixing the 1SG <'-> /ʔ-/ to a /ʔ/-initial stem always leads to a single [ʔ] rather than [ʔʔ]. Some examples are provided in (198) and (199), with non-1SG examples provided for comparison. This prohibition on [ʔʔ] was first noted for the Miomafo variety by Steinhauer (1993: 135) and also for the Amarasi varieties by Edwards (2020: 440) and Tan (2023: 28).

(198) a. Au ∅-**'iup** hau toe-f.
1SG.NOM 1SG-break tree branch-INAL
'I broke a tree branch.'
(YEK; elic. Sep. 15, 2021)

b. Hoo **m-'iup** hau toe-f=e.
2SG.NOM 2SG-break tree branch-INAL=DEF
'You broke the tree branch.'
(YEK/NSK; elic. Sep. 15, 2021)

(199) a. Au ∅-**'eusfaan**.
1SG.NOM 1SG-sneeze
'I sneeze. (Steinhauer 1993: 135)

b. Ina **n-'eusfaan**.
3SG.NOM 3-sneeze
'He/She sneezes. (Steinhauer 1993: 135)

The 1PL.INC prefix /t-/ usually deletes when attaching to a /t/-initial stem (200a-b), but not always (200c). One can compare the verbs with null agreement to the same verbs with overt agreement in (139a) and (127a). Steinhauer (1993: 135) indicates that /t-/ deletion is universal in the Miomafo dialect, while Edwards (2020: 440) indicates that the /t-/ is not deleted in the Amarasi varieties. I have found variation leaning towards deletion.

(200) a. Hita ∅-**tuup**.
1PL.INC.NOM 1PL.INC-sleep
'We sleep.' (Steinhauer 1993: 135)

b. Hiit *bisa* ∅-**teop** koo.
1PL.INC.NOM can 1PL.INC-hit 2SG.ACC
'We can hit you.'
(YEK/NSK; elic. Nov. 10, 2021)

c. Hita **t-tuuf** siin.
1PL.INC.NOM 1PL.INC-fight 3PL
'We fight them.'
(YEK/NSK; elic. Jul. 1, 2022)

The 2SG/1PL.EXC/2PL prefix /m-/ is often overt on /m/-initial stems, but often not. This variation occurs both when it is attaching to a root (201) and a Voice prefix (202). Like with /t-/, Steinhauer (1993: 135) indicates that /m-/ deletion is universal in the Miomafo dialect, while Edwards (2020: 440) indicates that the /m-/ is not deleted in the Amarasi varieties. I have found relatively even variation, perhaps with a slight preference for deletion.

(201) a. On le' hai **m-méóp** *kelompok*=at hai mi-bua.
IRR.LOC REL 1PL.EXC.NOM 1PL.EXC-work group=SET 1PL.EXC.NOM 1PL.EXC-clump
'Since we work as a team, we gather.' (HNK; AOZ2019-MON006, line 31)

b. *Pertama* hai ∅**-méóp** lele.
first 1PL.EXC.NOM 1PL.EXC-work field
'First we work in the field.' (HNK; AOZ2019-MON006, line 7)

(202) a. Hai **m-ma-baat**.
1PL.EXC.NOM 1PL.EXC-DEOB-separate
'We split up.' (YEK; AOZ2019-MON002, line 24)

b. Hai ∅**-ma-teop** mi-laal=jen.
1PL.EXC.NOM 1PL.EXC-DEOB-hit 1PL.EXC-finish=INCP
'We have fought.' (YEK; elic. Aug. 18, 2021)

By contrast, 3SG/3PL /n-/ is rarely, if ever, deleted when attaching to /n/-initial stems, with the /n-n/ sequence being realized as a geminate [n:] (203). This appears to be true of all varieties of Uab Meto (Steinhauer 1993: 135, Edwards 2020: 440, Tan 2023: 28). One piece of evidence that there is an /n-n/ sequence is that the word preceding the verb ends in a vowel, rather than a consonant, to avoid a CCC sequence (see (192) and associated discussion). (203a) has 3SG.NOM *ina* instead of *iin*, and (203b) has an [a] epenthesized to the future tense marker *lof*.

(203) a. Ina n-nao.
3SG.NOM 3-go
'He went.' (YEK; AOZ2019-MON002, line 63)

b. Au *'-palsai* iin lof|a **n-nao** on|a *skool*.
1SG.NOM 1SG-believe 3SG.NOM FUT|EPEN 3-go IRR.LOC|EPEN school
'I believe he/she will go to school.' (YEK; elic. Jun. 29, 2022)

In fact, both when overt and elided, all these asyllabic agreement prefixes are treated as if they are present. Similar to the *ina*/*iin* alternation with the 3SG.NOM pronoun, the focus marker *ees* (138, 140a, 187b) takes the form *esa* before CC-initial words, as shown in (204). Notably, the pre-CC *esa* form is used before verbs with elided agreement prefixes (205), suggesting that the prefixes are still present at some level of phonological representation, even if they are not actually pronounced.

(204) he hai **esa m-keen** ai' hai **ees mi-klété**.
IRR 1PL.EXC.NOM FOC 1PL.EXC-shoot or 1PL.EXC.NOM FOC 1PL.EXC-slingshot
'so that we can shoot or slingshot (animals).' (YEK; AOZ2019-MON002, line 31)

(205) a. Au **esa** ∅**-'eusfaan**. /ʔ-ʔeusfaːn/
1SG.NOM FOC 1SG-sneeze
'I am the one who sneezes.' (Steinhauer 1993: 139)

b. Hoo **esa** ∅**-móóf**. /m-moːf/
2SG.NOM FOC 2SG-fall
'You (sg.) are the one who falls.' (Steinhauer 1993: 139)

c. Hai **esa ∅-móóf**. /m-moːf/
1PL.EXC.NOM FOC 1PL.EXC-fall
'We (exc.) are the ones who fall.' (Steinhauer 1993: 139)

d. Hii **esa ∅-móóf**. /m-moːf/
2PL.NOM FOC 2PL-fall
'You (pl.) are the ones who falls.' (Steinhauer 1993: 139)

e. Hiit **esa ∅-tuup**. /t-tuːp/
1PL.INC.NOM FOC 1PL.INC-sleep
'We (inc.) are the ones who sleep.' (Steinhauer 1993: 139)

Furthermore, 3SG/3PL /n-/ usually exhibits place assimilation with the following consonant, except in careful speech (Steinhauer 1993: 135, Edwards 2020: 101). Most of the assimilated variants are still written as <n>, including [ŋ] before [f] (206a), [ɲ] before <j> [dʒ] (206b), and [ŋ] before [k] (206c). However, when it becomes [m] before bilabial [b] and [p], this is reflected orthographically (207). The relevant verbs are bolded in their sentences and transcribed in IPA at the end. (207b), where there is a pause between the Agr prefix and the verb stem, shows that this prefix remains /n-/ underlyingly. The assimilation of /n/ to [m] and [ŋ] is very common in the Miomafo variety, but it does not occur in the Amarasi varieties, while assimilation to [ɲ] and [ŋ] occurs in Amarasi (Edwards 2020: 101).

(206) a. Mi-lali=te es∼esa=te **n-faan**=jen on iin ume. [ŋ-faːn]
1PL.EXC-finish=SET one.RED∼one=SET 3-return=INCP IRR.LOC 3SG.NOM house
'When we finished, everyone returned home.' (YEK; AOZ2019-MON002, lines 85-86)

b. Na-bua-b=e **n-jael** Oelneke. [ɲ-dʒaɛl]
3-clump-CAUS=3SG.ACC 3-become Oelneke
'It was gathered together to become Oelneke.' (YAF; AOZ2019-MON004, line 258)

c. *Biasa* **n-kena** m-bii 'nuu'f=e tuun. [ŋ-kɛna]
usual 3-shoot 3-RLS.LOC mountain=DEF top
'He usually shoots at the top of the mountain.' (YEK; AOZ2019-MON002, line 56)

(207) a. Iin ees *biasa* **m-pao m-bii** tlaka'. [m-paɔ], [m-biː]
3SG.NOM FOC usual 3-wait 3-RLS.LOC bridge
'He usually waits across the bridge.' (YEK; AOZ2019-MON002, line 61)

b. Iin esa **n-** ... **pao** m-bii 'nono'. [n- ... paɔ]
3SG.NOM FOC 3- ... wait 3-RLS.LOC stream
'He waited by the stream.' (YEK; AOZ2019-MON002, line 63)

Lastly, agreement prefixes are sometimes elided at the beginning of an utterance due to a general dispreference for tautosyllabic consonant clusters, despite the fact that asyllabic Agr prefixes often create what look like word-initial consonant clusters. Speakers may pronounce initial CC clusters as they are (208a), epenthesize a vowel to resyllabify the prefix as a coda (208b), or delete the prefix (208c). Consultant YAF does all three with the same lexical item in the same recording.

(208) a. **M-bii** ii hai on t-aka m-bii Oelneke.
3-RLS.LOC DEM.PROX 1PL.EXC.NOM IRR.LOC 1PL.INC-say 1PL.EXC-RLS.LOC Oelneke
'Here (we say that) we are in Oelneke.' (YAF; AOZ2019-MON004, lines 136-137)

b. **A|m-bii** ii=je msa' ...
EPEN|3-RLS.LOC DEM.PROX=DEF also ...
'Here there is also...' (YAF; AOZ2019-MON004, line 191)

c. ∅**-bii** Oelneke ii=je msa' ...
3-RLS.LOC Oelneke DEM.PROX=DEF also ...
'In Oelneke here there is also...' (YAF; AOZ2019-MON004, line 178)

All of these alternations are the result of phonology, not morphology. Starting with the cases of Agr prefixes attaching to a stem beginning with the same consonant, Uab Meto generally disprefers geminate consonants; they only occur across morpheme boundaries (Tan 2023: 28) or because of metathesis, with Agr prefixation being a common cause of it. The tendency for a geminate to be reduced is based on the sounds themselves, nothing concerning grammar or semantics. The oral stop geminates /ʔʔ/ and /tt/ are respectively always and mostly reduced, while the nasal stop geminates /mm/ and /nn/ are respectively variably and rarely reduced. This pattern is seen in other (potential) geminates in the language. As noted above, [ʔʔ] does not occur at all. I am unsure if [tt] is possible outside of Agr prefixation as in (200); it is notable that one potential case involving the nominalizing suffix /-t/ is resolved by realizing the suffix as [-s] when there is a /t/ in the stem (139c, 141, 209a) (Steinhauer 1996a: 228). On the other hand, [mm] and [nn] gemination can be found with inalienable possession suffixes attaches to nouns ending in the same consonant (209b-c), and at least [nn] geminates can be created root-internally via metathesis (210).

(209) a. **a-ma-fuut-s=in** *amafuuttin
SUB.NMLZ-DEOB-tie-NMLZ=PL
'those who tie each other' (Tarno et al. 1992: 38)

b. hoo **huum-m=ii** reok-n=ii
2SG.NOM face=2SG.INAL=DEM.PROX good=3SG.INAL=DEM.PROX
'your face's goodness' (Tan 2023: 405)[5]

c. n-ook iin óél-f=e **kaan-n=e** Yanus
3-with 3SG.NOM younger.sibling-3.KIN=DEF name-3SG.INAL=DEF Yanus
'with his brother named Yanus' (YEK; AOZ2019-MON002, line 62)

(210) a. **Téunn=e** **fuunn=es** ma-sópu-∅-'. /tɛnun =ɛ/ → [teunːɛ]
weaving=DEF moon=one STAT-go.through-CAUS-NMLZ /funan =ɛs/ → [fuːnːɛs]
'The weaving was finished within one month.' (YEK; elic. Aug. 18, 2021)

b. **Aenn=e** na-sóé-n nees=be. /anin =ɛ/ → [ʔaɛnːɛ]
wind=DEF 3-open-CAUS door=DEF
'The wind opened the door.' (YEK; elic. Apr. 20, 2022)

[5]The demonstrative *ii* 'this' is an enclitic in the Amarasi variety but an independent word in the Miomafo variety.

Place assimilation for /n/ also occurs in other contexts, such as before suffixes (211a) and enclitics (211b).

(211) a. *Selamat*, au **kaan-k=e** Lambertus Kapitan. /kana -k =ɛ/
hello 1SG.NOM name-1SG.INAL=DEF Lambertus Kapitan → [kaːŋkɛ]
'Hello, my name is Lambertus Kapitan.' (LTK; AOZ2019-MON011, line 1)

b. **Neem=besa=te** n-sóé koo n-éék fauk=at, /nɛnɔ =bɛsa =tɛ/
day=one=SET 3-open 2SG.ACC 3-bring how.much=SET → [nɛːmbɛsatɛ]
'every day they paid you with how much,' (LTK; AOZ2019-MON011, line 62)

The optional elision of asyllabic Agr prefixes is related to a general dispreference for tautosyllabic consonant clusters. Word-initial consonant clusters of all morphological structures are broken up via resyllabification phrase-medially (212a) (Steinhauer 1996a: 223), which can involve epenthesis when the preceding word is not underlyingly V-final (212b). Phrase-initial clusters can be left as they are (208a, 212c) or broken up via resyllabification with epenthesis (208b, 212d) or via deletion of the initial consonant (208c, 212e).

(212) a. **Ina n-'ote 'naak-f=ini**. [ʔi.nan.ʔɔ.tɛʔ.naːk.fi.ni]
3SG.NOM 3-cut head-INAL=PL.DEF
'He/She cuts heads.' (Steinhauer 1996a: 223)

b. ∅-mui' le'|**a 'naka-f|a m-bii** ... [mwiʔ.lɛ.ʔaʔ.na.ka.fam.biː]
3-have REL|EPEN head-INAL|EPEN 3-RLS.LOC ...
'There is a leader in ...' (YAF; AOZ2019-MON004, line 196)

c. **Pleent=e n-*'utus*** kau '-nao on paha 'naek. [plɛːn.tɛn.ʔu.tus]
government=DEF 3-dispatch 1SG.ACC 1SG-go IRR.LOC land big
'The government sent me to the big city.' (YAF; AOZ2019-MON004, lines 73-74)

d. **a|'-toko-'** [ʔaʔ.tɔ.kɔʔ]
EPEN|NMLZ-sit-NMLZ
'(a) chair' (YEK; elic. Oct. 27, 2021)

e. **Naka-f** haa' ... Nope, Feka', Luli, Banfo'e. [na.kaf]
head-INAL four ... Nope Feka' Luli Banfo'e
'Four leaders ... Nope, Feka', Luli, Banfo'e.'
(YAF; AOZ2019-MON004, lines 254-256)

In summary, deletion and assimilation alternations seen in the asyllabic (C-) agreement prefixes in Uab Meto are a result of more general phonological processes in the language. Therefore, I consider these alternations as phonological, rather than allomorphic, in nature, and thus unrelated to the allomorphy between the asyllabic (C-) and syllabic (CV-) agreement prefixes. The analysis of allomorphy in section 3.4 thus focuses purely on the C-/CV- alternation.

3.2.6 Section summary

This subsection has described the various factors that condition agreement-prefix allomorphy. It is clear from this discussion that the phonology of the stem is the primary factor affecting the choice of agreement prefix allomorph. CC-initial verbs taking syllabic (CV-) prefixes makes sense as part of avoiding CCC sequences (*CCC), and V-initial verbs taking asyllabic (C-) prefixes makes sense from the standpoint of avoiding hiatus across morpheme boundaries (*V-V) (Tan 2023: 97). The fact that stems of 3+ syllables consistently take asyllabic prefixes is more mysterious, and the fact that *ha/ah* 'eat' takes syllabic ones even when V-initial requires an explanation.

Given the observations above, it is evident that the bulk of the complication in choosing an agreement-prefix allomorph comes when one has a disyllabic CV-initial stem. To facilitate an understanding of the patterns that we have seen, all the relevant factors involved in the choice of agreement prefix from a descriptive standpoint are summarized in Table 3.3. This table intentionally excludes the alternations in the form of the C- prefixes discussed in section 3.2.5. These alternations are phonological in nature, resulting from more general phonological processes in the language, and are thus unrelated to the allomorphy displayed between the C- and CV- prefixes.

Stem type			**Agr allomorph**		**Example**	**Gloss**	**Source**
σσσ+			C-		n-'eusfaan	'sneeze'	(171a)
σσ	#CC		CV-		na-snaas	'stop'	(168a)
	#V		C-		n-o'en	'call'	(167a)
	#CV	non-causativized (inc. denominal)	C-	75%	n-took	'sit'	(179a)
			CV-	25%	na-foo	'smell'	(187a)
		non-causativized loan	C-		n-'utus	'dispatch'	(169a)
		causativized	CV-		na-toko-b	'seat'	(179b)
		deobjective	C-		n-ma-'ah	'eat e.o.'	(191)
σ/'eat'			CV-		na-ah	'eat'	(174c)
'come'			special		neem	'come'	(176c)

Table 3.3: Uab Meto agreement-prefix allomorphy patterns (based on Edwards 2020: 440)

With this description in place, we are now ready to analyze the patterns.

3.3 Agreement prefix allomorphy: Theoretical underpinnings of the analysis

This section will discuss two aspects of theory that are essential to understanding the analysis of Uab Meto agreement-prefix allomorphy discussed in section 3.4. Section 3.3.1 will discuss the morphological operations of Pruning and Obliteration and why I will ultimately adopt a form of the latter for Uab Meto. Then section 3.3.2 will discuss Uab Meto syllable and foot structure, the understanding of which is essential for an analysis of the phonological conditioning of Uab Meto agreement-prefix allomorphy.

3.3.1 Theoretical underpinnings: Pruning and Obliteration

I will ultimately propose that all agreement-prefix allomorphy in Uab Meto can be attributed to phonological, grammatical, or, in a few cases, lexical conditioning from morphemes or constituents of multiple morphemes that are **structurally** adjacent to Agr. If structural adjacency is met, phonological features can factor in. A conditioning head does not need to be linearly adjacent to Agr to condition allomorphy on it. Furthermore, structural adjacency can be evaluated on the structure as it is originally generated or created via the Obliteration (Arregi & Nevins 2007, 2012) of null intervening morphemes.

Obliteration was originally proposed in Arregi & Nevins (2007) as a deletion operation. They contrast Obliteration with Impoverishment. Impoverishment deletes features from terminal nodes; an example would be deleting a [+feminine] feature on a T node that also contains a [+author] feature. Obliteration is a more radical operation. Rather than just removing a particular feature, Obliteration deletes the entire T node (Arregi & Nevins 2012: 9). This means that there can be no exponent of T, not even a default one, and T and all of its features are unavailable to reference for allomorphy on other morphemes.

These works use allomorphy within the Basque verbal auxiliary complex to demonstrate the difference. The Basque verbal auxiliary complex generally clitic doubles any absolutive, ergative, and dative arguments present (213). The examples below are from the Ondarru variety.

(213) a. Ber-ak gu-ri liburu-∅ emo-∅ **d-o-ku-∅**.
3SG-ERG.SG 1PL-DAT book-ABS give-PFV L-PRES.3SG-1PL.DAT-3SG.ERG
'He has given us the book.' (Ondarru Basque; Arregi & Nevins 2012: 213)

b. Su-k ber-ai liburu-∅ emo-∅ **d-o-tz-su**.
2SG-ERG 3SG-DAT.SG book-ABS give-PFV L-PRES.3SG-3SG.DAT-2SG.ERG
'You (sg.) have given him the book.' (Ondarru Basque; Arregi & Nevins 2012: 213)

c. Su-k ni-ri liburu-∅ emo-∅ **d-o-t-su**.
2SG-ERG 1SG-DAT book-ABS give-PFV L-PRES.3SG-1SG.DAT-2SG.ERG
'You (sg.) have given me the book.' (Ondarru Basque; Arregi & Nevins 2012: 214)

d. Ni-k seu-∅ ikus-i **s-aitu-t**.
1SG-ERG 2SG-ABS see-PFV 2SG.ABS-PRES.2SG-1SG.ERG
'I have seen you (sg.).' (Ondarru Basque; Arregi & Nevins 2012: 82)

e. Su-k neu-∅ ikus-i **n-a-su**.
2SG-ERG 1SG-ABS see-PFV 1SG.ABS-PRES.1SG-2SG.ERG
'You (sg.) have seen me.' (Ondarru Basque; Arregi & Nevins 2012: 52)

However, there are some cases where clitics are Impoverished or Obliterated. Several Basque varieties have dissimilation processes that takes effect when the verbal auxiliary hosts a 1PL clitic and a 2SG/PL clitic. The Ondarru variety has "Plural Clitic Impoverishment". A 2PL absolutive clitic loses its plural number marking when there is a 1PL ergative clitic present (214a). This does not occur when the ergative clitic is 1SG (214b). This is Impoverishment; the person component remains, but it looks as it would if the absolutive object were underlyingly singular, as in (213d).

(214) a. Gu-k sue-k ikus-i **s-aitu(*-e)-gu**.
1PL-ERG 2PL-ABS see-PFV 2.ABS-PRES.2PL(*-PL.ABS)-1PL.ERG
'We have seen you (pl.).' (Ondarru Basque; Arregi & Nevins 2012: 225)

b. Ni-k seu-ek ikus-i **s-aitu-e-t**.
1SG-ERG 2PL-ABS see-PFV 2.ABS-PRES.2PL-PL.ABS-1SG.ERG
'I have seen you (pl.).' (Ondarru Basque; Arregi & Nevins 2012: 265)

The Zamudio and Albomiga varieties have "Participant Dissimilation" when there is a 1PL ergative clitic and 2SG/PL absolutive clitic. Notably, their repairs are different. In Zamudio, the 1PL clitic is Obliterated, i.e. it is removed from the structure entirely (215). In Alboniga, the clitic is impoverished to the null 3SG/default form (215).

(215) a. Eroa-n bear {✓**s-ara** / *__s-aitu-u__} eskola-ra.
take-NF must {✓2SG.ABS-PRES.2SG / *2SG.ABS-PRES.2SG-1PL.ERG} school-ALL.SG
'We have to take you (sg.) to school.' (Zamudio Basque; Arregi & Nevins 2012: 220)

b. Gu-k seue-k ikus-i {✓**s-aitu-∅-s-e** /
1PL-ERG 2PL-ABS see-PFV {✓2.ABS-PRES.2PL-3SG.ERG-2PL-PL.ABS /
*__s-aitu-gu-s-e__}
*2.ABS-PRES.2PL-1PL.ERG-2PL-PL.ABS}
'We have seen you (pl.).' (Alboniga Basque; Arregi & Nevins 2012: 225)

The fact that the relevant clitics experience Obliteration in Zamudio vs. Impoverishment in number and person/number in Ondarru and Alboniga respectively can be shown through the effects of the dissimilation process on the allomorphy of the T head that hosts the various clitics. T shows allomorphy for its clitic argument structure. More specifically, there are distinct forms depending on whether the clause is intransitive, monotransitive, or ditransitive. Relevant for the Obliteration and Impoverishment discussed here, in montransitive clauses with an absolutive participant, the typical form of T is *aitu*[6]. The intransitive form of T with an absolutive participant is *as* in Ondarru (216a) and *ara* in Zamudio (216b) and Alboniga (Arregi & Nevins 2012: 152, 220-221).

(216) a. Su-∅ Bilbo-a ju-n **s-as**.
2SG-ABS Bilbao-ALL go-PFV 2SG.ABS-PRES.2SG
'You (sg.) have gone to Bilbao.' (Ondarru Basque; Arregi & Nevins 2012: 59)

b. Ixilik ego-ten ba **s-ara** esa-ngo d-o-__tzu-t__.
quiet be-IPFV if 2SG.ABS-PRES.2SG tell-FUT L-PRES.3SG-2SG.DAT-1SG.ERG
'If you're quiet, I'll tell you.' (Zamudio Basque; Arregi & Nevins 2012: 336)

Crucially, in Ondarru and Alboniga, where there is Impoverishment of features on a clitic, the monotransitive *aitu* form of T is retained. This is because the relevant ergative and absolutive clitics remain in the verbal complex to condition the montransitive form. However, the Obliteration

[6]Ondarru also has a special form *a* for 1SG absolutive objects (Arregi & Nevins 2012: 153), as in (213e).

of the ergative clitic in Zamudio makes it such that the verbal auxiliary complex is intransitive. There is no ergative clitic left at all, only an absolutive one. Therefore, the intransitive form *ara* is used instead.

This allomorphy demonstrates the difference between Impoverishment and Obliteration. With Impoverishment, one can still make reference to the presence of a node in the relevant domain, though reference to certain features may no longer be possible. With Obliteration, nothing about the node can be referenced, not even its mere presence, which is all that is necessary to condition the monotransitive form of T.

The allomorphy and associated processes that Arregi & Nevins (2007, 2012) discuss are grammatically conditioned. For example, the Zamudio Obliteration of 1PL ergative in the context of a 2SG/2PL aboslutive is described as in (217), and the allomorphy between the intransitive T form *ara* and transitive T form *aitu* is shown in (218):

(217) Zamudio: 1PL Obliteration

a. Structural description: An auxiliary M-word with two clitics Cl_1 and Cl_2 such that Cl_1 is [+motion, +participant, +author] and Cl_2 is [+participant].

b. Structural change: delete Cl_1. (Arregi & Nevins 2012: 217)

(218) Zamudio: Vocabulary entries for participant T in the present tense

a. aitu ⟷ [+have, -past, +participant] / _ [-peripheral]

b. ara ⟷ [-have, -appl, -past, +participant] (Arregi & Nevins 2012: 220)

The Obliteration operations proposed by Arregi & Nevins (2007, 2012) are grammatically conditioned. One could also propose phonologically conditioned Obliteration, which is what I intend to do for Uab Meto agreement-prefix allomorphy, drawing on insights from the Pruning operation proposed by Embick (2010, 2015). Embick (2015: 185) argues for Pruning as an operation within Distributed Morphology to explain how non-structurally-adjacent nodes can condition allomorphy on each other. An example from English is that verb roots can condition special allomorphy on past-tense T suffixes and vice versa, but only when any intervening v heads are null (219a), not when they are overt like *-en* or *-ize* (219b). Overt v heads prevent roots from conditioning allomorphy on T, forcing the use of default *-ed*, and also prevent T from conditioning the form of the root.

(219) a. **Attested:** Present *feel* → Past *fel-t*; Present *hit* → Past *hit-∅*

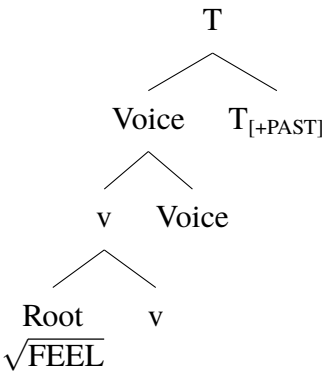
b. **Unattested:** Present *dark-en* → Past *dark-en-t*, *dark-en-∅*;
Present *varpor-ize* → Past *vapor-ize-t*, *vapor-ize-∅*

Embick (2010, 2015) formalizes this contrast in terms of concatenation statements and the Pruning (i.e. removal) of null morphemes from those concatenation statements after Vocabulary Insertion. Concatenation statements show which morphemes are linearly adjacent and can thus condition allomorphy on each other. "At least some" null morphemes[7] are Pruned from concatenation statements,

[7]Embick (2010: 59) and Embick (2015: 185) state that a morpheme being realized as null is a necessary but not sufficient condition for it to be Pruned. Exactly which null morphemes are Pruned or not remains an open question. I will revisit this question in analyzing Uab Meto agreement prefix allomorphy in section 3.4.

allowing for the concatenation of morphemes that are not concatenated before Pruning and thus also allowing for allomorphic conditioning between them (Embick 2015: 185). In effect, this process allows one to ignore null intervening morphemes when evaluating linear adjacency. To illustrate, structures and concatenation statements for *felt* in (219a) and *darkened* in (219b) are provided in (220) and (221) respectively. These are based on the Pruning process described in Embick (2010: 59-60) and Embick (2015: 185) and assume inside-out Vocabulary Insertion (VI) of one morpheme at a time (Embick 2015: 191-192), Pruning of morphemes with null exponents immediately after VI for that morpheme (Embick 2015: 185), and Readjustment Rules for root allomorphy conditioned by features that the root can only see after it undergoes VI (Embick 2015: 201-203).

(220) a. Verbal structure



b. Concatenation statements before VI
$\sqrt{\text{FEEL}}$ ⁀ v, v ⁀ Voice, Voice ⁀ $T_{[+PAST]}$

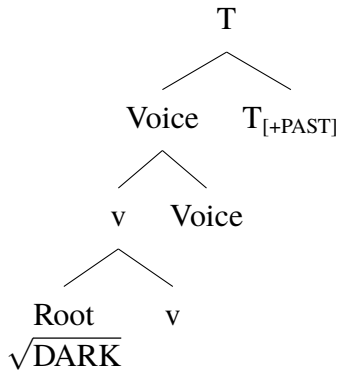
c. VI on the root
[$\sqrt{\text{FEEL}}$, *feel*] ⁀ v, v ⁀ Voice, Voice ⁀ $T_{[+PAST]}$

d. VI / Pruning on v
[$\sqrt{\text{FEEL}}$, *feel*] ⁀ [v, -∅], [v, -∅] ⁀ Voice, Voice ⁀ $T_{[+PAST]}$
→ [$\sqrt{\text{FEEL}}$, *feel*] ⁀ Voice, Voice ⁀ $T_{[+PAST]}$

e. VI / Pruning on Voice
[$\sqrt{\text{FEEL}}$, *feel*] ⁀ [Voice, -∅], [Voice, -∅] ⁀ $T_{[+PAST]}$
→ [$\sqrt{\text{FEEL}}$, *feel*] ⁀ $T_{[+PAST]}$

f. Readjustment Rule for $\sqrt{\text{FEEL}}$ and VI on T
[$\sqrt{\text{FEEL}}$, *fel*] ⁀ [$T_{[+PAST]}$, -*t*]

(221) a. Verbal structure



b. Concatenation statements before VI
$\sqrt{\text{DARK}}$ ⁀ v, v ⁀ Voice, Voice ⁀ $T_{[+PAST]}$

c. VI on the root
[$\sqrt{\text{DARK}}$, *dark*] ⁀ v, v ⁀ Voice, Voice ⁀ $T_{[+PAST]}$

d. VI on v
[$\sqrt{\text{DARK}}$, *dark*] ⁀ [v, *-en*], [v, *-en*] ⁀ Voice, Voice ⁀ $T_{[+PAST]}$

e. VI / Pruning on Voice
[$\sqrt{\text{DARK}}$, *dark*] ⁀ [v, *-en*], [v, *-en*] ⁀ [Voice, -∅], [Voice, -∅] ⁀ $T_{[+PAST]}$
→ [$\sqrt{\text{DARK}}$, *dark*] ⁀ [v, *-en*], [v, *-en*] ⁀ $T_{[+PAST]}$

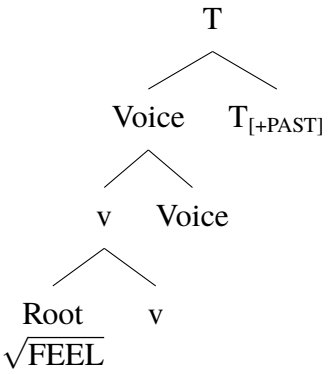
f. After VI on T
[$\sqrt{\text{DARK}}$, *dark*] ⁀ [v, *-en*] , [v, *-en*] ⁀ [$T_{[+PAST]}$, *-ed*]

This crucial contrast in the possibility for mutually conditioned root and T allomorphy in *felt* and *darkened* is a consequence of the fact that the verbalizing (v) head is null in *felt-∅-t* but overt in *dark-en-ed*. The same logic applies for *hit-∅-∅* with a null v head and *vapor-ize-d* with an overt one. If v is null, it can be Pruned, removing it from Concatenation statements and allowing formerly non-concatenated morphemes to become concatenated (220b-c). In the relevant English verbs like *felt* and *hit*, this allows the root and $T_{[+PAST]}$ to become concatenated and thus condition allomorphy on each other. On the other hand, if v is overt, it cannot be Pruned. This means that in English verbs like *darkened* and *vaporized*, the root and $T_{[+PAST]}$ are not concatenated even after Pruning (221b-c), and so they cannot condition allomorphy on each other. This accounts for why there are no verbs in English with overt v that show tense-conditioned allomorphy of the root or a special form of $T_{[+PAST]}$ lexically conditioned by the root, while many verbs with null v do show one or both of these types of allomorphy.

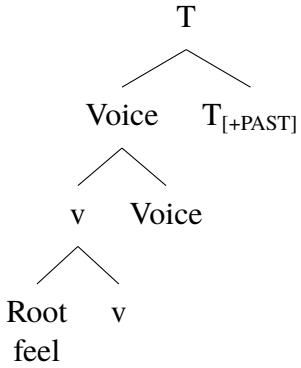
Pruning as proposed by Embick (2010, 2015) operates on concatenation statements that make reference to linear adjacency. They do not directly make reference to structure; they instead make reference to the linearization of the relevant structure (Embick 2010: 59). What I propose to account for Uab Meto agreement-prefix allomorphy is a form of Pruning that operates directly on structure.

Rather than the Pruning of a node from concatenation statements, this is a form of Obliteration (Arregi & Nevins 2007, 2012) that removes an entire node from the structure. This Obliteration would operate under the same condition as Pruning. Vocabulary Insertion (VI) starts at root and proceeds outwards (Bobaljik 2000), applying to one morpheme at a time. If a morpheme undergoes VI and has a null exponent, it is Obliterated before VI moves to the next morpheme[8]. This process and the results that it produces are illustrated below for the same English verbs *felt* (222) and *darkened* (223).

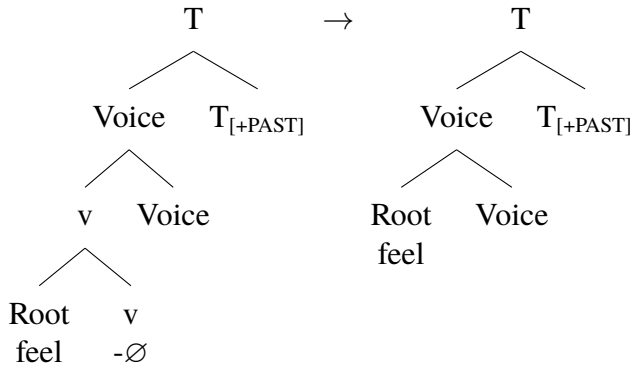
(222) a. Before VI



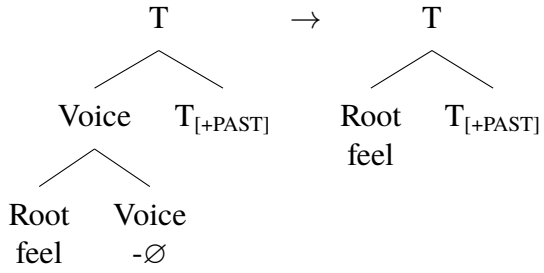
b. VI on the root



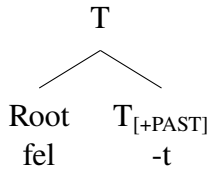
c. VI / Obliteration on v



d. VI / Obliteration on Voice

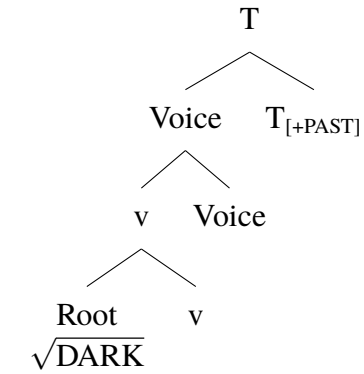


e. Readjustment Rule for $\sqrt{\text{FEEL}}$ and VI on T

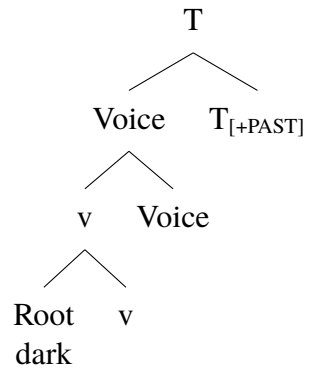


[8]The Obliteration process proposed here has the same result as "radical Pruning", which fully eliminates certain morphemes from the structure before VI based on their grammatical features (Embick 2010: 86, Embick 2015: 104, 227), but it applies later, during VI, based on phonological features that only become visible during VI.

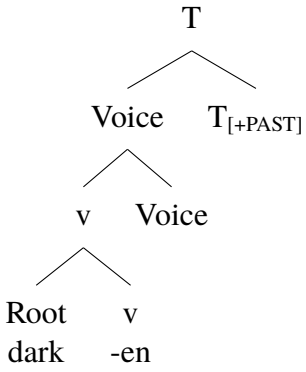
(223) a. Before VI



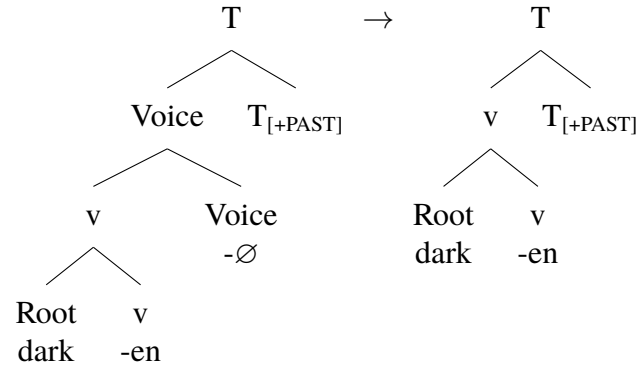
b. VI on the root



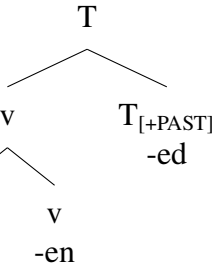
c. VI on v



d. VI / Obliteration on Voice



e. VI on T



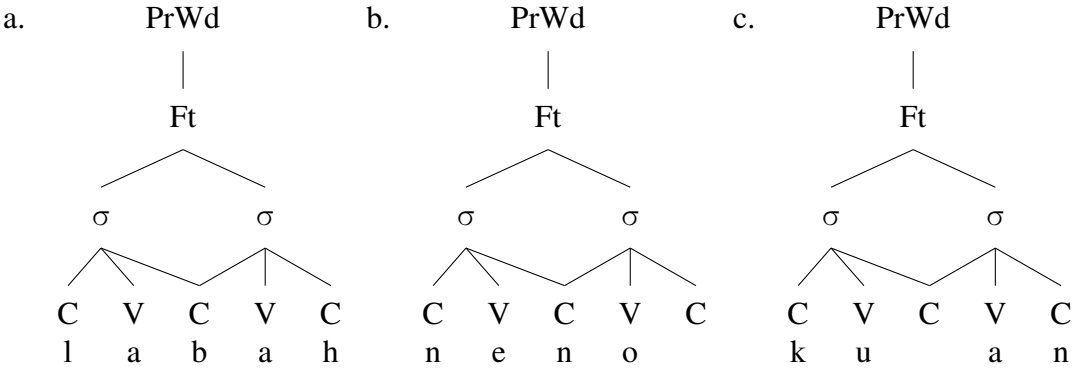
Adopting a morphological operation that alters structure, rather than linear concatenation statements, is necessary to account for the conditioning in Uab Meto of syllabic (CV-) Agr prefixes by non-linearly adjacent heads like the causative v ($v_{[+CAUS]}$) suffixes (see section 3.2.3). $v_{[+CAUS]}$ and Agr are always separated by at least the root, and thus, they can never be made linearly adjacent and concatenated via Pruning in the way proposed by Embick (2010, 2015). However, combining the null-morpheme triggering context of Pruning with the structural effects of Obliteration (Arregi & Nevins 2007, 2012) leads to the form of Obliteration that I propose for Uab Meto. This form of Obliteration allows for $v_{[+CAUS]}$ to be made *structurally* adjacent to Agr when Voice and the sometimes-present Appl are null.

3.3.2 Theoretical underpinnings: Uab Meto syllable and foot structure

One aspect of the Uab Meto agreement-prefix allomorphy described in section 3.2.1 and Table 3.3 is that all non-reduplicated[9] stems of 3+ syllables (σσσ+) take asyllabic (C-) Agr. That generalization is easy enough to state, but in fact, due to processes like metathesis and diphthongization, determining the number of syllables in an Uab Meto word is not always straightforward. Thus, as part of our preparation for the analysis in section 3.4, this section will describe how segments are organized into syllables and feet in Uab Meto. The analysis here is adopted from Edwards (2020). His analysis was developed for the Amarasi variety, but I have found that it extends quite well to the Miomafo variety.

The majority of Uab Meto lexical roots are built on disyllabic (C)V(C)V(C) feet[10]. Example syllable and foot structures for *labah* 'quickly', *neno* 'day', and *kuan* 'village' are provided in (224). All the consonants are optional at the root level, but at the foot level there is a constraint against onsetless feet (Edwards 2020: 118). In the case of onsetless roots, the initial consonant must be filled by something; this can be a C- prefix like asyllabic agreement, as with *no'en* '3SG/3PL call(s)' (225a), or it can be an epenthetic consonant, usually [ʔ], as with *afi* 'yesterday' in (225b), but sometimes [mn], as with *mninut* 'a drink', the nominalization of *inu*/*iun* 'drink' in (225c). Consonant epenthesis will be discussed in more detail in section 3.5.3. What is important for now is that feet always end up with an initial consonant even if the root that forms most of the foot lacks one.

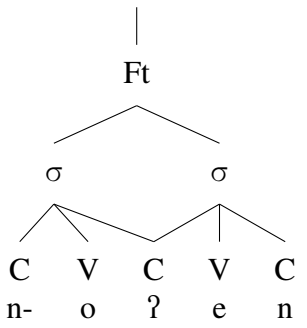
(224)



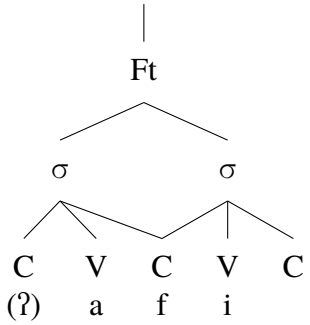
[9] See the end of section 3.2.4 for reduplication data and discussion of the fact that reduplication does not affect agreement-prefix allomorphy.

[10] In the Amarasi-variety corpus of Edwards (2020: 135), 1223 of 1913 (∼64%) lexical roots fit into a disyllabic (C)V(C)V(C) foot. This includes the 32 (C)VVCV(C) roots discussed below. 401 of the 1913 (∼21%) consist of a single disyllabic foot preceded by a consonant, i.e. CCV(C)V(C) (Edwards 2020: 139). Trisyllabic (C)V(C)CV(C)V(C) roots comprise 178 (∼9%), and quadrisyllabic (C)V(C)V(C)CV(C)V(C) roots comprise 106 (∼6%) (Edwards 2020: 143-144). Finally, there are only 4 five-syllable roots and 1 monosyllabic root, *ha*/*ah* 'eat' (Edwards 2020: 145).

(225) a.



b.



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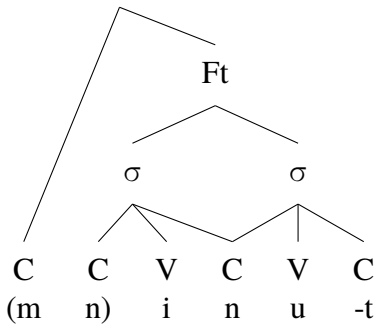


In addition to having an obligatory onset, another important feature of Uab Meto feet is that they are disyllabic. Both vowels are obligatory, and they both form the nucleus of a syllable. This is true even when a root appears to be monosyllabic. For example, the roots *sii* 'sing' and *fee* 'give', sound phonetically as if they are pronounced with a long vowel, i.e. [siː] and [fɛː], but certain kinds of suffixation show that the vowel segments are treated as distinct. Recall from (107b) that when the VV-final root *tui* 'write' is put into a nominalized stative, the [ʔ] nominalizer that surfaces as a suffix when attaching to CV-final roots like *tepo* 'hit' (107a) surfaces instead as an infix between the final vowels. *sii* 'sing' and *fee* 'give' behave like any other VV-final root in this respect; their vowels just happen to be identical in quality. To illustrate the separateness of the vowels, active-verb and stative-nominalization examples for *sii* 'sing' and *fee* 'give' are provided in (226) and (227) respectively. These show that the correct foot/syllable structures for these verbs are the ones in (228).

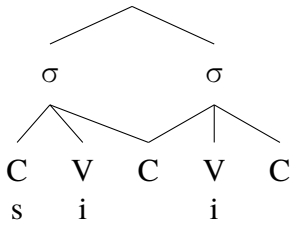
(226) a. Hoo **m-sii** sii-t.
2SG.NOM 2SG-sing sing-NMLZ
'You sing a song.'
(YEK/NSK/YFB; elic. Jun. 25, 2022)

b. Sii-t nae **ma-si<'>i**.
sing-NMLZ DEM.DIST STAT-sing<NMLZ>
'That song is sung.'
(YEK; elic. Feb. 23, 2022)

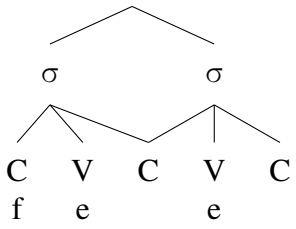
(227) a. Sina **n-fee** kii siis fafi.
3PL 3-give 2PL.ACC meat pig
'They gave you (pl.) pork.' (YEK; elic. Jan. 29, 2024)

b. Siis fafi nae **ma-fe<’>e** (n-eu Yoakim).
meat pig DEM.DIST STAT-give<NMLZ> (3-to Yoakim)
‘That meat was given (to Yoakim). (YEK; elic. Jan. 29, 2024)

(228) a.

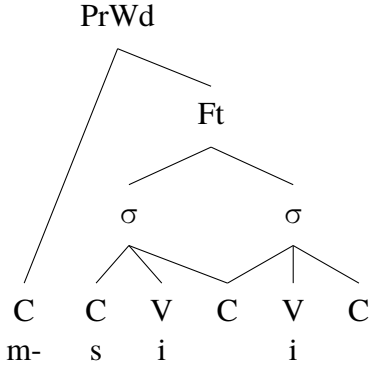


b.

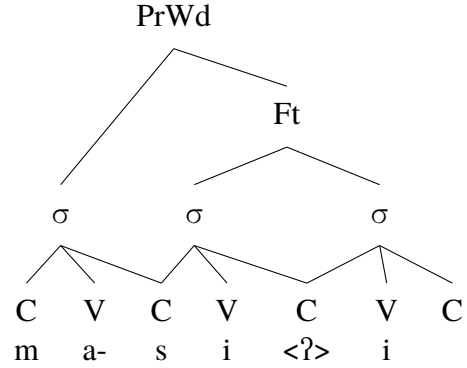


The structures in (228) are not complete prosodic words. They are missing the prefixes and suffixes that make them into the complete, bolded words in (226) and (227). -C suffixes/infixes that attach to V-final roots, like nominalizing [-t] (225c) and [-ʔ/<ʔ>], can be fit into the foot structure, but prefixes attaching to C-initial roots are external to the foot. If these prefixes include a vowel, they form an extra syllable, also external to the foot (Edwards 2020: 110). To illustrate all of this, full word structures for *msii* ‘(you) sing’ (226a) and *masi’i* ‘(be) sung’ (226b) are provided in (229).

(229) a.

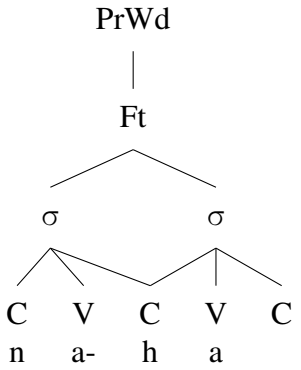


b.

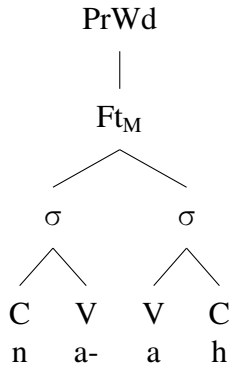


There is one exception to the observation that prefixes that attach to C-initial roots surface outside the foot. This exception is the root *ha/ah* ‘eat’, the only monosyllabic lexical root in Uab Meto of which I am aware. Because *ha/ah* is monosyllabic, it cannot form a complete foot on its own. This is resolved by using syllabic agreement prefixes, which supply both an onset consonant for the foot and an obligatory second vowel (Edwards 2020: 145). The full active conjugation paradigm for *ha/ah* with the root in the metathesized *ah* form is provided in (174). To illustrate the structure of this root and agreement, unmetathesized *na-ha* ‘3SG eats’ and metathesized *na-ah* from (192) are provided in (230). Metathesis and the metathesized (C)VVC feet (Ft_M) that it creates will be discussed in more detail below.

(230) a.



b.



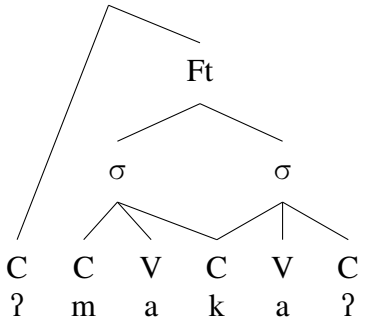
Additional evidence that *ha/ah* 'eat' is monosyllabic comes from stress patterns. Uab Meto has consistent stress on the penultimate syllable of the word, excluding any enclitics (Edwards 2020: 111-113), so this is the only verb to my knowledge where the agreement prefix is audibly stressed, rather than a vowel in the root. (231) provides a minimal pair between *ha/ah* (231a) and *hana/haan* 'cook' (231b). The agreement prefix *ta-* is the penultimate syllable in (231a), so it receives stress, marked with ´. On the other hand, in (231b), the disyllabic verb *haan* contains the penultimate syllable, so the verb receives stress rather than the agreement prefix. Uab Meto only has -C suffixes, so penultimate stress directly correlates to stress on the first syllable of the final foot of a word.

(231) a. Peen'=e msa' *bisa* **tá-ha=n**.
corn=DEF also can 1PL.INC-eat=PL
'The corn also, we can eat.' (HNK; AOZ2019-MON006, line 241)

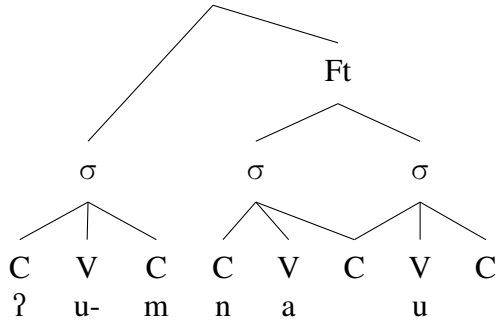
b. Nifun niim hene t-soos t-aan utan hene **ta-háán**.
thousand five IRR 1PL.INC-buy 1PL.INC-get vegetables IRR 1PL.INC-cook
'Five thousand (rupiah) to buy vegetables to cook.'
(HNK; AOZ2019-MON006, line 808)

Roots can also be CC-initial. In these cases, the initial C of the root is external to the foot. A root like *'maka'* 'rice' (232a) has the same structure as a disyllabic verb that begins with a C- Agr prefix and CV-initial root, such as *msii* '(you) sing)' in (229a), but with the pre-foot C being part of the root. A CC-initial root with a CV- Agr prefix like *'umnau* '(I) remember' (232b) is structurally similar to the stative nominal *masi'i* '(be) sung' in (229a), except that the pre-foot syllable with a prefix includes a coda C from the root.

(232) a.



b.



So far we have covered disyllabic roots, including those without prefixes (224, 232a), with C- prefixes (225a, 229a), and with CV- prefixes (229b, 232b). We have also covered a monosyllabic root that is made into a complete disyllabic foot with the addition of a CV- prefix (230). I covered these roots first, because they all consist phonologically and orthographically of two vowels or less, so their being smaller than the σσσ+ threshold relevant to agreement-prefix allomorphy is easy to discern. Of course we have also seen roots and stems that contain 3+ vowels. Some of these meet the σσσ+ threshold, while others do not. We turn to these now.

There is one type of root that has three or more vowels but is treated as disyllabic. These are roots of the shape (C)VVCV(C). Based on the discussion above, one might be led to the conclusion that the number of vowels directly correlates to the number of syllables. Though this is true most of the time, (C)VVCV(C) roots are the exception. In these roots, the VV sequence is treated as a diphthong occupying a single V slot, resulting in these roots fitting into a single disyllabic CVCVC foot despite the third vowel (Edwards 2020: 136). One piece of evidence for this analysis concerns the placement of prefixal and epenthetic consonants (Edwards 2020: 137). For example, the root *aena*/*aen* 'run' can be made into a complete disyllabic foot with the addition of an asyllabic agreement prefix, as with *maena* '(you) run' in (233a). When causativized, the relevant form *mu'aena'* '(you) make run' (233b) has an epenthetic [ʔ] after the syllabic agreement prefix *mu-*. In neither case is there a foot-initial consonant between the vowels in the root VV sequence [aɛ] <ae>. These contrast with something like *tma'inut* '(we inc.) give each other (to drink)' (233c), which has an epenthetic [ʔ] in the initial VV sequence between the [a] of deobjective *ma-* and the [i] of the V-initial root *inu*/*iun* 'drink'. This epenthesis also occurs in *'u'inut* 'I give (to drink)' (233d) in the initial VV sequence between the [u] of the 1SG agreement prefix and the [i] of *inu*.

(233) a. Hoo **m-aena**=ma m-biul.
2SG.NOM 2SG-run=and 2SG-dance
'You run and dance.' (YEK; elic. Dec. 8, 2021)

b. Hoo **mu-'-aena-'** kau.
2SG.NOM 2SG-EPEN-run-CAUS 1SG.NOM
'You run/take me.' (YEK; elic. Oct. 20, 2021)

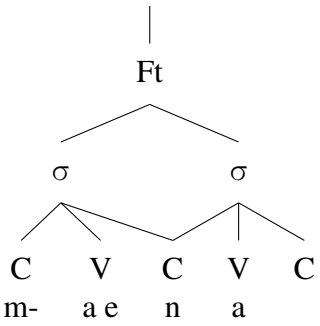
c. Hita **t-ma-'-inu-t** *kofe*.
1PL.INC.NOM 1PL.INC-DEOB-EPEN-drink-CAUS coffee

‘We give each other coffee.’ (YEK; elic. Jan. 24, 2024)

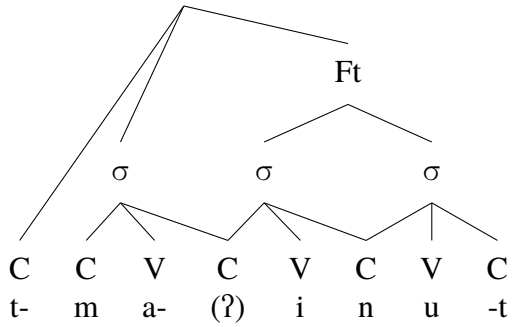
d. Au **’u-’-inu-t** koo oel.
1SG.NOM 1SG-EPEN-drink-CAUS 2SG.ACC water
‘I give you water.’ (YEK; elic. Jul. 14, 2021)

These epenthesis facts can be explained by analyzing both *aena* ‘run’ and *inu* ‘drink’ as being contained within a single disyllabic (C)V(C)V(C) foot, where the first vowel can optionally be a diphthong. To illustrate the resulting structures, including affixes, the foot and syllable structures of the bolded verbs in (233) are illustrated in (234).

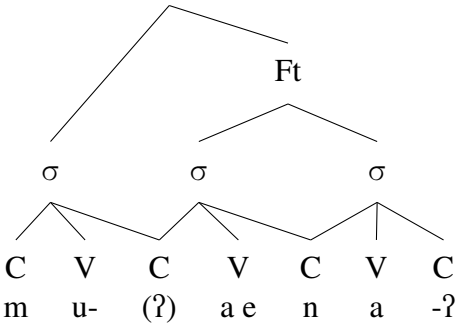
(234) a.



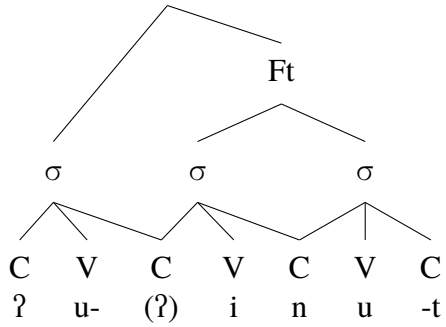
c.



b.



d.



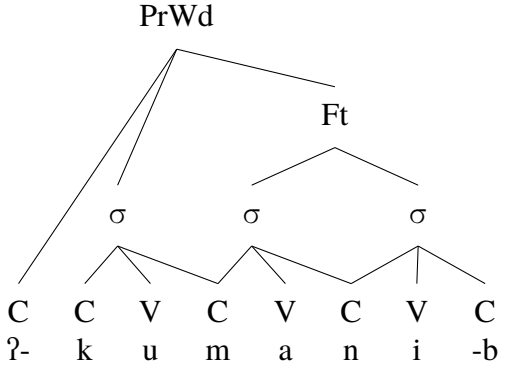
Approximately 15% of roots are trisyllabic or longer, with only 4 being five syllables and none being longer. Trisyllabic roots conform to a syllable+foot (C)V(C)(CV(C)V(C)) template, and quadrisyllabic roots conform to a two-foot ((C)V(C)V(C))(CV(C)V(C)) template (Edwards 2020: 143-145). These templates instantiate myriad possibilities, so I will not cover every possible structure here. Being σσσ+, they are all the same as far as agreement-prefix allomorphy is concerned. Thus, I will just provide a small number of representative 3- and 4- syllable stems so that the reader can distinguish them for the analysis in section 3.4. Below I will refer to these stems collectively as “long” stems.

Because disyllabic roots are much more common than longer ones, long stems are most commonly derived with the addition to deobjective *ma-*, which adds an additional syllable, to a disyllabic

root. This can be seen, for example, in the change between *'inut* 'give (to drink)' (233d, 234d) and *ma'inut* 'give each other (to drink) (233c, 234c), to which agreement prefixes are then added.

Trisyllabic stems with and without *ma-* have the same broad structure. In both cases a syllable precedes a foot. An example of a trisyllabic root is *kumani/kumaen/kumaan* 'smile', which can be causativized into *kumanib* 'make smile'. One can then add an asyllabic 1SG agreement prefix to create *'kumanib* 'I make smile' (186e), the prosodic structure of which is shown in (235a). An example of a quadrisyllabic root is *haumaka* 'be near', which can be causativized into *haumaka-b* 'make near'. One can then add an asyllabic 2SG agreement prefix to create *mhaumakab* 'you make near' (186d), the prosodic structure of which is shown in (235b).

(235) a.



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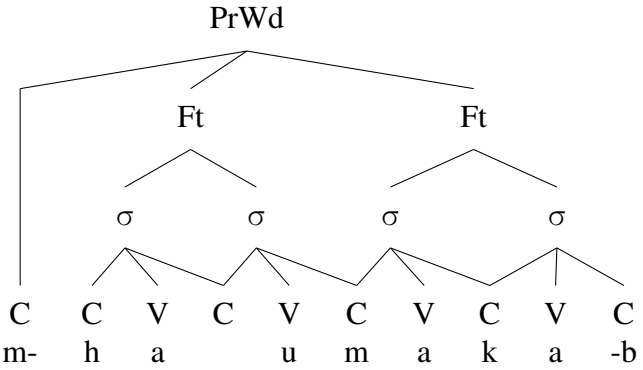


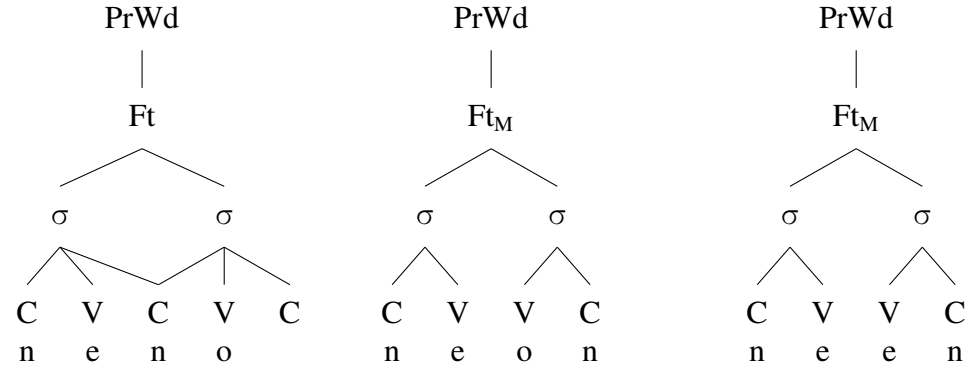
So far in this subsection I have intentionally presented words in which the root is in its underlying, unmetathesized form. Of course, we have seen a large number of metathesized forms in this chapter, and so the reader may wonder how metathesis interacts with syllable and foot structure. Now that we have an understanding these structures, we can describe in precise terms what metathesis targets and how syllable and foot structure before metathesis relates to syllable and foot structure after metathesis. See section 1.5.2 for a more detailed discussion of the different types of metathesis and the environments in which they occur.

Metathesis targets the final CV sequence of a foot (Edwards 2020: 109). Post-root suffixes in Uab Meto are limited to single consonants[11], so apart from non-initial feet in long words with

[11]Edwards (2020: 457) lists one potential suffix that does not consist of only a single consonant, *-a'*, that attaches

more than one foot, the final CV sequence of a foot in Uab Meto corresponds to the final CV sequence of both the root and the prosodic word. When a word undergoes metathesis, this CV sequence becomes a VC sequence. In terms of foot structure, the unmetathesized (C)VCV(C) foot becomes a metathesized (C)VVC foot (Edwards 2020: 176). How this works for a CVCV root like *neno*/*neon*/*neen* 'day' is illustrated in (236). The subscripted "M" in Ft_M indicates "metathesized".

(236) a. Before metathesis b. After metathesis (type 1) c. After metathesis (type 2)



The form of the root that is used depends on its category and its environment. I will first discuss nominal roots. To aid in explanation, sentential examples of the three forms of *neno* 'day' are provided in (237). Nominal roots are not metathesized sentence-finally or before numerals or demonstratives (Steinhauer 1996a: 228), as in *neno ii* 'this day' in (237a). They are also not metathesized when followed by a CC-initial word, as in *neno 'naek* 'big day, week' (237b). If metathesis occurs, it can be classified into two types. The first type of metathesis has the vowels retain distinct qualities. In general, this type of metathesis occurs when a noun has a non-CC-initial attributive modifier (Steinhauer 1996a: 229), as in *neon unu'* 'first day' in (237c). The second type of metathesis assimilates the second vowel into the first. This type of metathesis occurs when (underlyingly) vowel-initial enclitics attach to a vowel-final noun (Edwards 2020: 220), as with *neem=besa=te* 'each/every day' in (237d). All feet require an onset consonant, so a [b] is inserted at the beginning of the vowel-initial enclitic *=es(a)* 'one'. Here a [b] is inserted, rather than an [l], [dʒ] <j>, or nothing, is due to the the root *neno* underlyingly ending in a back vowel /ɔ/ (Steinhauer 1996b: 483).

(237) a. **Neno ii** hoo m-éók bolo.
day DEM.PROX 2SG.NOM 2SG-eat cake
'Today you eat cake.' (YEK/NSK; elic. Oct. 20, 2021)

b. **Neno 'naek** nua ka= n-iit kau =fa.
day big two NEG= 3-see 1SG.ACC =NEG

exclusively to VVC-final stems. Tan (2023: 44-47) analyzes this morpheme as an enclitic used to add emphasis to the word to which it attaches, mostly verbs but occasionally nouns and TAM markers of the appropriate shape. The addition of *=a'* allow the two vowels of the stem to be parsed into a single syllable, creating a (C)VVCVC foot with *=a'* as the final VC (Edwards 2020: 458).

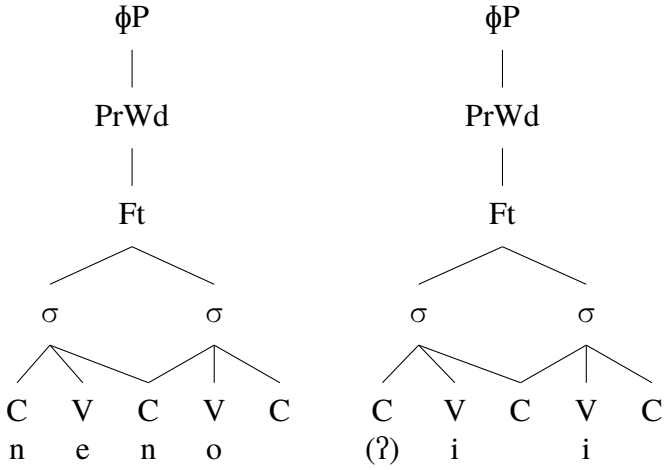
‘For two weeks he did not find me.’ (LTK; AOZ2019-MON011, line 42)

c. Au **neon unu’** le’ au ’-ita bnao kolo.
1SG.NOM day first REL 1SG.NOM 1SG-see boat bird
‘(That was) my first time that I saw an airplane.’ (YAF; AOZ2019-MON004, line 61)

d. **Neem=besa=te** n-sóé koo n-éék fauk=at,
day=one=SET 3-open 2SG.ACC 3-bring how.much=SET
‘every day they paid you with how much,’ (LTK; AOZ2019-MON011, line 62)[12]

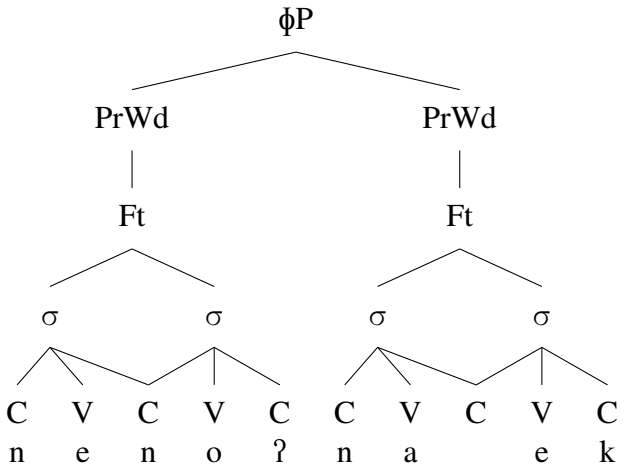
These distinct forms of the noun are correlated with the phonological proximity of the root and what follows it. If the noun does not metathesize, it is because what follows is part of a distinct prosodic phrase (ϕP) (238a), or because the initial consonant of a following word occupies the foot-final C-slot into which the medial consonant in the root would metathesize (238b). The metathesized form where the vowels remain distinct occurs when a following modifier belongs to a separate prosodic word (PrWd) but is part of the same ϕP (238c). The metathesized form where the second vowel assimilates to the first occurs when V-initial enclitics attach at the PrWd level without first forming their own PrWd (238d). The structures up to the PrWd level are based on Edwards (2020: 113-115), but the ϕPs are my own analysis.

(238) a. Demonstrative (no metathesis)

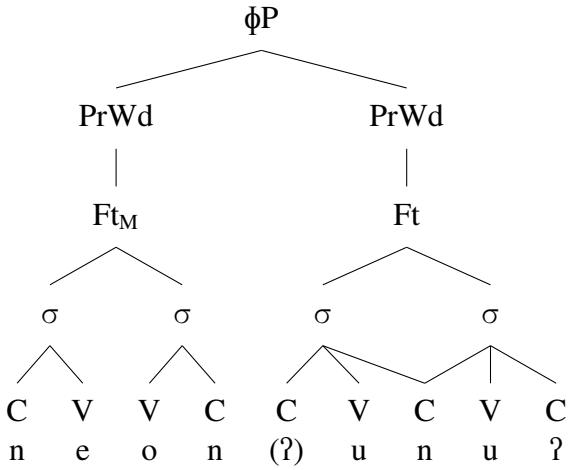


[12]The final [n] of *neen* assimilates to [m] when followed by [b] or [p], in this case the initial [b] of the enclitic *=besa* ‘one’.

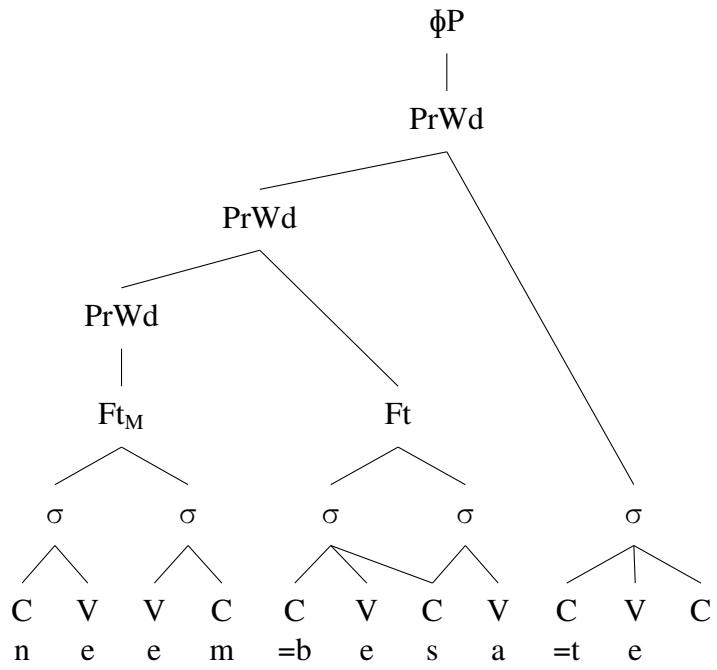
b. CC-initial attributive modifier (no metathesis)



c. V/CV-initial attributive modifier (metathesis type 1)



d. V-initial enclitic (metathesis type 2)



Verbal roots display the same alternations in forms, with partially distinct conditioning factors. These are shown via the examples in (239), which mostly feature the root *kumani* 'smile' but include one example with another root that ends in /ani/, *fani* 'return', for paradigmatic completeness. Regarding the metathesized form where the second vowel fully assimilates to the first, one notable difference between nouns and verbs is that verbs commonly[13] take this form sentence-finally, as with *'kumaan*'(I) smile' in (239a). Verbs also pattern like nouns in using this form when V-initial enclitics attach to them (Edwards 2020: 220), as with *nfaan=jen* 'begins to return' in (239b). Here a [dʒ] <j> is inserted at the beginning of *=en* (inceptive aspect), due to the root *fani* 'return' underlyingly ending in /i/ (Steinhauer 1993: 150). Regarding the unmetathesized form, verbs differ from nouns in not metathesizing when they are C-final (suffixed or not[14]) and followed by an object or modifier (Steinhauer 1993: 143), as with *'kumanib* '(I) make smile' in (239c). However, verbs resemble nouns in not metathesizing before a CC-initial word, as with *'kumani 'bii...* '(I) smile at...' in (239d). Regarding the metathesized form where the vowels retain distinct qualities, verbs and nouns both take this form when they are V-final and followed by an object or modifier that is

[13]This does not always occur, and I do not fully understand what conditions this form vs. the metathesized form where the vowels remain distinct sentence-finally. See, for example, (115b) and (115c). The full-vowel-assimilation form does not occur in this environment in all varieties of Uab Meto, so "sentence-final" is a tentative generalization for the Miomafo variety on my part. Steinhauer (1993: 141) proposes that this form is conditioned by null, semantically general objects, but that does clearly extend to intransitive verbs like *kumani* 'smile'.

[14]See (167a) for a C-final verb root that displays the same behavior. (167a) and (239d) can be contrasted with a nominal example like *bótil* 'bottle' → *bóit fé'u* 'new bottle' (Steinhauer 1996a: 230), where the head noun *bótil* undergoes metathesis and drops its final consonant in the presence of an attributive modifier. This results in a structure like (238c) after metathesis.

not CC-initial (Steinhauer 1993: 142), as with *'kumaen es tasi ninen* '(I) smile at the beach' in (239e). Here there is partial vowel assimilation; the underlying [i] of *kumani* 'smile' lowers to [ɛ] <e> when adjacent to the low vowel [a], but crucially there is not total assimilation.

(239) a. Au **'-kumaan**.
1SG.NOM 1SG-smile
'I smile.' (YEK; elic. Jan. 24, 2024)

b. Mi-lali=te es∼esa=te **n-faan=jen** on iin ume.
1PL.EXC-finish=SET one.RED∼one=SET 3-return=INCP IRR.LOC 3SG.NOM house
'When we finished, everyone returned home.' (YEK; AOZ2019-MON002, lines 85-86)

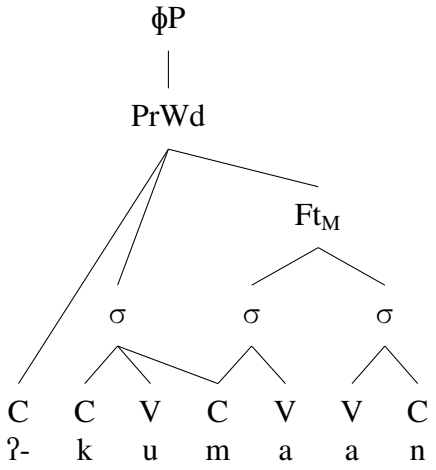
c. Au **'-kumani '-bii** tasi nine-n.
1SG.NOM 1SG-smile 1SG-RLS.LOC sea edge-3SG.INAL
'I smiled on the beach.' (YEK; elic. Jan. 24, 2024)

d. Au **'-kumani-b** koo.
1SG.NOM 1SG-smile-CAUS 2SG.ACC
'I make you smile.' (YEK; elic. Jan. 24, 2024)

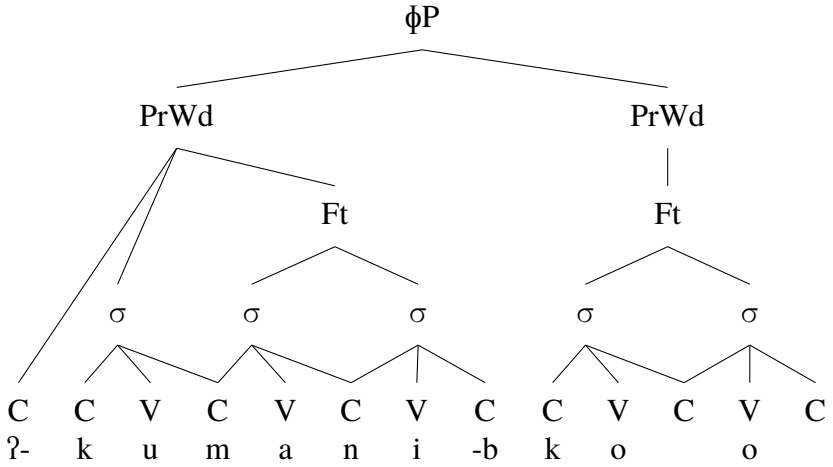
e. Au **'-kumaen es tasi nine-n**.
1SG.NOM 1SG-smile IPFV.LOC sea edge-3SG.INAL
'I smile on the beach.' (YEK; elic. Jan. 24, 2024)

In summary, the environments for particular forms of verbal metathesis broadly resemble the environments governing nominal metathesis, but verbs often do full-vowel-assimilation metathesis sentence-finally, and they avoiding metathesizing when they end in a consonant, regardless of what follows. For the sake of space, I will only present one tree for each form of the verbal root (unmetathesized, metathesized without total vowel assimilation, metathesis with total vowel assimilation), focusing on the environments that distinguish verbs from nouns where applicable. Thus, the structure of (239a), an underlyingly V-final verb that metathesizes with full vowel assimilation sentence-finally is provided in (240a). The structure of (239d), a C-final verb that does not metathesize before an object/adjunct, is provided in (240b). Lastly, the structure of (239e), a V-final verb that does metathesize before an object/adjunct, is provided in (240c). For (240c) I do not depict the possessee *ninen* '3SG's edge' in the same ϕP tree, because the possessor noun *tasi* 'sea' that precedes it is unmetathesized, showing that the possessor and possessee belong to separate ϕPs.

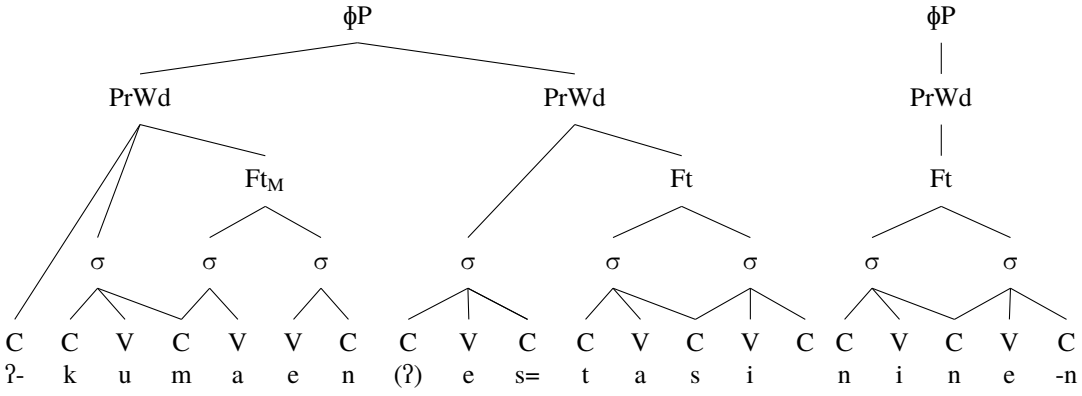
(240) a. V-final sentence-final (metathesis type 2)



b. C-final with object/adjunct (no metathesis)



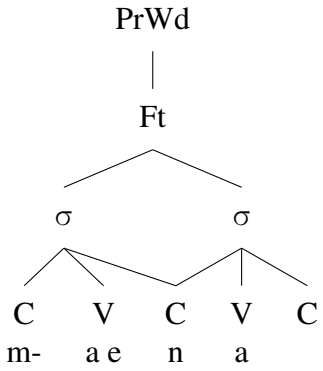
c. V-final with object/adjunct (metathesis type 1)



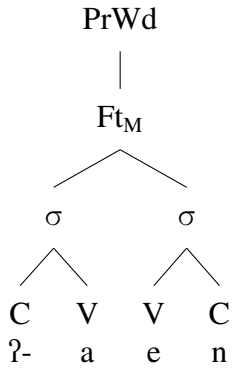
The last type of structure that I will cover here is verbal roots of the (C)VVCV(C) shape. When metathesizing, rather than turning the final CV sequence into a VC sequence, these roots delete the

final vowel. In addition, the two remaining vowels are parsed such that each one occupies a distinct V slot; they no longer diphthongize (Edwards 2020: 176). This is demonstrated in (241) for the root *aena/aen* 'run', as shown in examples (233a) and (73b). These have different agreement prefixes, but this is irrelevant for metathesis.

(241) a.



b.



An important observation for agreement-prefix allomorphy that emerges from these structures is that metathesis does not affect the syllable count. Both normal (C)V(C)V(C) feet and metathesized (C)VVC feet are disyllabic. A root that fits into a foot like *neno* 'day' is disyllabic regardless of whether it is unmetathesized *neno* (236a), metathesized without full vowel assimilation *neon* (236b), or metathesized with full vowel assimilation *neen/neem* (236c). A root that consists of a syllable and a disyllabic foot like *kumani* 'smile' is trisyllabic regardless of whether it is unmetathesized *kumani* (240b), metathesized without full vowel assimilation *kumaen* (240c), or metathesized with full vowel assimilation *kumaan* (240a). The root *ha* 'eat' is monosyllabic regardless of whether it is unmetathesized *ha* (230a) or metathesized *ah* (230b). Even when a vowel is deleted in metathesis, as with a (C)VVCV(C) root like *aena* 'run' (241a), the remaining vowels in metathesized *aen* (241b) are reparsed such that the structure remains disyllabic. Thus, the major takeaway from this subsection in preparation for section 3.4 is that unmetathesized and metathesized words have the same number of syllables. A word may look like it has a diphthong or long vowel based on the fact that two vowels are adjacent to each other, but apart from unmetathesized (C)VVCV(C) roots, the vowels are nuclei of separate syllables.

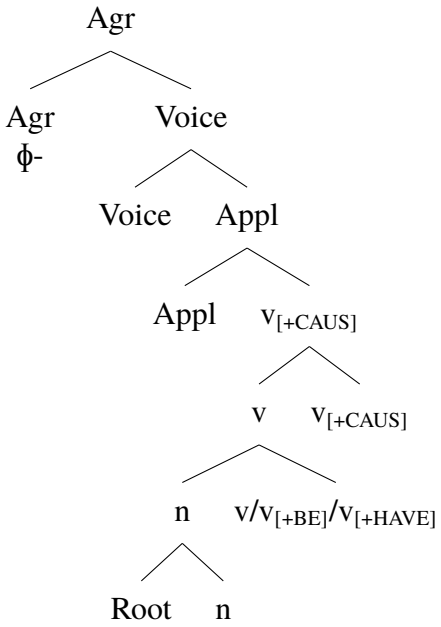
3.4 Agreement prefix allomorphy: Analysis

This section will provide a theoretical analysis of the agreement-prefix allomorphy described in section 3.2 within the framework of Distributed Morphology (Halle & Marantz 1993). Sections 3.4.1-3.4.6 will analyze the various facets of agreement-prefix allomorphy summarized in Table 3.3. Section 3.4.6 also includes discussion that will be relevant to the analysis of $v_{[+CAUS]}$ allomorphy in section 2.3.1. Finally, section 3.4.7 will briefly discuss some remaining potential analytical difficulties associated with the proposed analysis.

This analysis will ultimately propose that all agreement-prefix allomorphy can be attributed to phonological, grammatical, or (in a few cases) lexical conditioning from morphemes or constituents

of multiple morphemes that are **structurally** adjacent. If structural adjacency is met, Agr can see phonological, grammatical, and/or lexical features relevant to its allomorphy. This means that a conditioning head does **NOT** need to be linearly adjacent to the morpheme on which it conditions allomorphy. Structural adjacency can be based on the structure as it is originally generated, which will contain a mixture of the root and other heads in the hierarchy in (242), or it can be created via a form of Obliteration (Arregi & Nevins 2007, 2012) that removes nodes from a structure under the same condition that Pruning (Embick 2010, 2015) removes nodes from concatenation statements, namely that the node is realized as null upon Vocabulary Insertion. See section 3.3.1 for more discussion of Pruning and Obliteration in previous work and how they will be applied here.

(242)



More specifically, I will motivate the vocabulary entries for Agr in (243). These entries assume that asyllabic prefixes are the morphological default, as well as being actively conditioned by stems that are 3 syllables or longer[15]. They further assume that syllabic prefixes are conditioned by a variety of factors including CC-initial stems, a small number of roots, $v_{[+CAUS]}$, and $v_{[+HAVE]}$. Conditioning for a particular factor can only occur when the morpheme or stem that collectively holds that feature is structurally adjacent to Agr, either based on the initial structure or via the Obliteration of null intervening morphemes.

(243) a. Agr $\longleftrightarrow$ CV- / _CC, $v_{[+CAUS]}$, $v_{[+HAVE]}$, *ha/ah* 'eat', *tuin* 'follow', maybe other roots
b. Agr $\longleftrightarrow$ C- / _ σσσ+ and elsewhere

There are two additional complications. The first is that, as seen in (176) and (177), 'come' is a special irregular verb that does not make use of the typical Agr prefixes. I assume that after

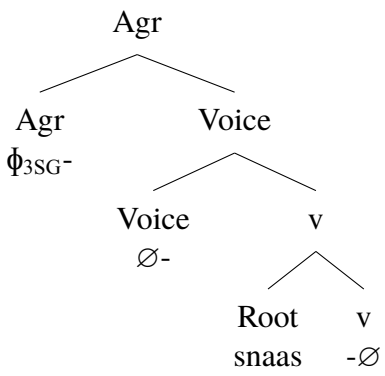
[15] See section 3.3.2 for discussion of how syllable count is determined in Uab Meto words. It is not always the most intuitive.

Obliteration, the now adjacent Agr and 'come' root undergo Fusion (Halle & Marantz 1993: 116) and a single morpheme exponing the features of both parts is inserted. This will be discussed in section 3.4.4. The second complication is that all the v heads other than "default" v, including $v_{[+CAUS]}$, $v_{[+BE]}$, and $v_{[+HAVE]}$ are not Obliterated, even when null. These v heads could be said to have "marked" grammatical features in relation to "default" v. This correlates to the observation that these heads *can* have a phonological effect on the verbs to which they attach, either through subtracting the final consonant of many but not all C-final nouns to form verbs ($v_{[+BE]}$/$v_{[+HAVE]}$, section 2.2.3), or through actual affixation ($v_{[+CAUS]}$, section 2.3.1), while "default" v never has any phonological effect. However, $v_{[+BE]}$ *is* Obliterated in the context of $v_{[+CAUS]}$. Why exactly this is the case is unclear. Perhaps there is a constraint against two marked v heads in the same verb, or perhaps it relates to $v_{[+BE]}$ not ever being associated semantically with an external argument, unlike external causers in the case of $v_{[+CAUS]}$ and external possessors in the case of $v_{[+HAVE]}$. This will be discussed in section 3.4.6.

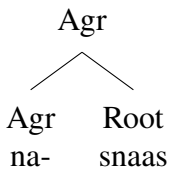
3.4.1 Phonological conditioning: CC-initial

First, focusing on the phonological constraints, CC-initial roots are not initially structurally adjacent to Agr, assuming a structure like (242) is accurate. However, the root can be made structurally adjacent to Agr via Obliteration under the right circumstances. An example structure showing the derivation of (168a) is provided in (244). Here "default" v and "default" Voice are null and unmarked, so they are Obliterated, creating (244b). Agr is adjacent to the root after Obliteration. Assuming Vocabulary Insertion starts at the root and proceeds outwards (Bobaljik 2000; Embick 2015), Agr has access to the root's phonology and sees the CC sequence at the beginning of the root. A syllabic Agr allomorph is inserted in response. If the same process happens and Agr encounters a V-initial or CV-initial root instead, a default asyllabic Agr allomorph is inserted.

(244) a. Before Obliteration



b. After Obliteration



In fact, I assume that structural adjacency to the whole remaining stem is what matters, rather than to the root specifically. In cases like (244), Obliteration makes the root and the stem identical, but there are other cases that demonstrate the appeal (3.4.2) or even necessity (3.4.3) of referencing the whole stem. We now turn to such cases.

3.4.2 Grammatical conditioning: $v_{[+CAUS]}$ and $v_{[+HAVE]}$

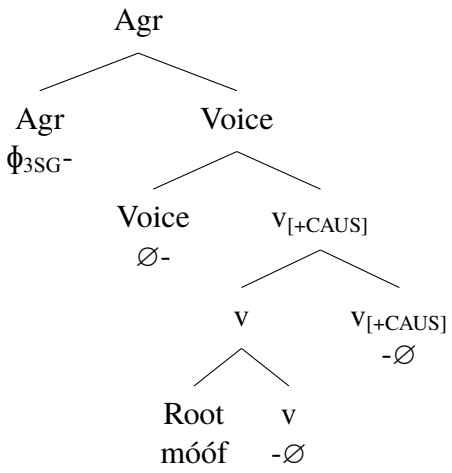
CC-initial roots (3.4.1) are the phonological conditioning factor for syllabic agreement prefixes. There are also two v heads that serve as grammatical conditioners of syllabic Agr, $v_{[+CAUS]}$ and $v_{[+HAVE]}$. I will first discuss $v_{[+CAUS]}$ before moving onto $v_{[+HAVE]}$.

As noted in sections 2.3.1 and 3.2.3, $v_{[+CAUS]}$, in all of its instantiations (*-b*, *-'*, *-n*, *-t*, and *-∅*), grammatically conditions syllabic Agr prefixes. Verbs that take asyllabic prefixes when not causativized (179a) take syllabic prefixes when causativized (179b). That this is grammatical conditioning rather than phonological conditioning is evidenced by the fact that a large number of verbs switch to taking syllabic Agr prefixes without any overt causative suffix (55, 71, among others).

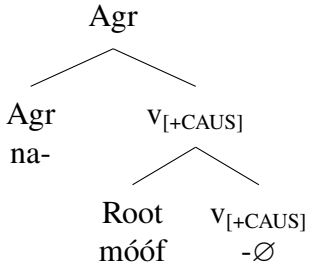
Verbal complexes with $v_{[+CAUS]}$ provide a clear demonstration of the necessity of Agr allomorphy referencing structural adjacency rather than phonological adjacency. The first reason for this is that in the cases where $v_{[+CAUS]}$ is null, there is no phonology that Agr can reference. The second reason is that when $v_{[+CAUS]}$ is overt, Agr is linearly separated from it by the root and potentially an overt Voice head. The cases with an overt Voice head require a separate treatment and so are covered in section 3.4.5, but in all cases there is something that intervenes linearly between $v_{[+CAUS]}$ and Agr, so an analysis of this allomorphy cannot rely on linear adjacency.

To illustrate how Obliteration allows $v_{[+CAUS]}$ to condition syllabic Agr, two derivations are provided in (245) and (246). (245) shows a null Voice head and null $v_{[+CAUS]}$ with *móf*u/*móóf* 'fall'. (246) shows a null Voice head and overt $v_{[+CAUS]}$ with *sae* 'rise' is provided in (246). These respectively show the verbal complexes in (71b) and (134b). The reason that $v_{[+CAUS]}$ is not Obliterated, even when null, is discussed in section 3.4.6. In brief, I hypothesize that null allomorphs that alternate with overt ones are not Obliterated.

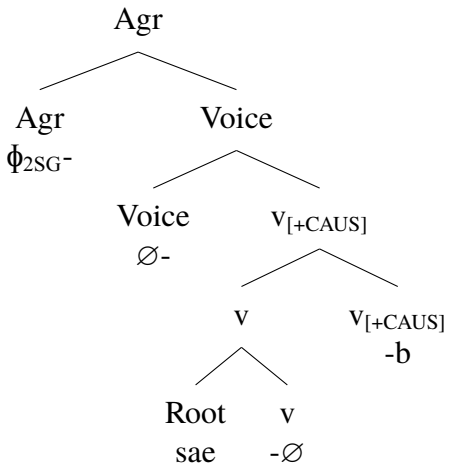
(245) a. Before Obliteration



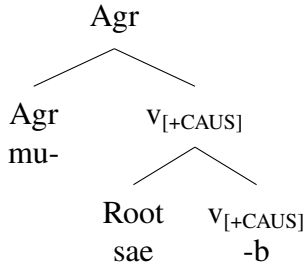
b. After Obliteration



(246) a. Before Obliteration



b. After Obliteration



In both of these structures, null "default" Voice does not have any marked features, so it is Obliterated. This creates a configuration in which Agr and $v_{[+CAUS]}$ are structurally adjacent, as represented by the fact that Agr and the top $v_{[+CAUS]}$ node are adjacent in the trees with Obliteration. In other words, Agr and $v_{[+CAUS]}$ are now structurally adjacent, and additionally, Agr is both linearly and structurally adjacent to the stem headed by $v_{[+CAUS]}$. This structural adjacency and the fact that $v_{[+CAUS]}$ is not overridden by the stem being three or more syllables (see section 3.4.3) allows it to condition syllabic Agr prefixes.

The reader may wonder why the null allomorph of $v_{[+CAUS]}$ in (245) is not Obliterated. As will be discussed in more detail in section 3.4.6, $v_{[+CAUS]}$ is a "marked" head, exempt from Obliteration even when null. What makes $v_{[+CAUS]}$ marked, as well as $v_{[+BE]}$/$v_{[+HAVE]}$, appears to be the ability to affect the phonology of the stem. $v_{[+CAUS]}$ is not always overt, but four of its five allomorphs are overt, including *-'*, *-n*, *-t.* and the default *-b*.

Notably, $v_{[+CAUS]}$ conditions syllabic Agr prefixes even on stems with V-initial roots (185, 247), which, as we saw in section 3.2.1, universally take asyllabic Agr prefixes when uncausativized. Uab Meto has a general dispreference for vowel hiatus across morpheme boundaries (i.e. *V-V) (Tan 2023: 97). It also has a more specific requirement for C-initial feet (Edwards 2020: 118, also see 3.3.2, especially 234). These phonological constraints provide motivation for the use of asyllabic agreement prefixes with V-initial roots. However, there is a conflict when a V-initial root combines with $v_{[+CAUS]}$. $v_{[+CAUS]}$ demands syllabic Agr prefixes; avoiding hiatus and onsetless feet demands either asyllabic prefixes or a consonant to prevent hiatus. Epenthesizing [ʔ] to prevent hiatus is the preferred solution, as seen in (247).

(247) a. Au **'u-'-inu-t** koo oel.
1SG.NOM 1SG-EPEN-drink-CAUS 2SG.ACC water
'I give you water.' (YEK; elic. Jul. 14, 2021)

b. Hoo **mu-'-aena-'** kau on ume.
2SG.NOM 2SG-EPEN-run-CAUS 1SG.NOM IRR.LOC house
'You run/take me home.' (YEK; elic. Oct. 20, 2021)

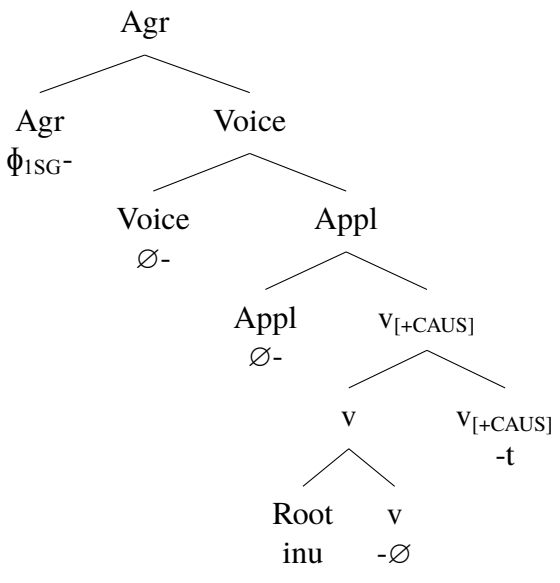
I attribute the successful conditioning of syllabic Agr before causativized V-initial stems to the separation between morphology and phonology. The Vocabulary Insertion rules in (243) posit that disyllabic V- and CV-initial stems receive the asyllabic Agr prefixes as a morphological default; they do not actively condition them. On the other hand, $v_{[+CAUS]}$ actively conditions syllabic Agr, so the syllabic allomorphs are more specific in this context. After Vocabulary Insertion, a phonologically motivated operation epenthesizes [ʔ] between Agr and the root to avoid hiatus at a morpheme boundary and/or an onsetless foot. This process applies generally in Uab Meto, independently of particular morphemes. For example, it also prevents hiatus between deobjective *ma-* and a V-initial root in verbs (248). This suggests that this [ʔ]-epenthesis is not a morphologically motivated Readjustment Rule (Halle & Marantz 1993: 128), and occurs later in the derivation.

(248) a. Siin **n-iit** maan=bes.
3PL 3-see chicken=one
'They see a chicken.'
(YEK; elic. Feb. 2, 2022)

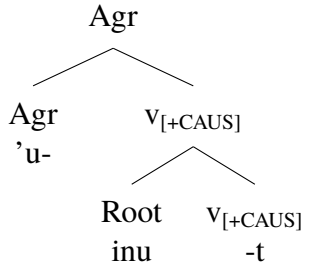
b. Hita **t-ma-'-iit**.
1PL.INC.NOM 1PL.INC-DEOB-EPEN-see
'We see each other.'
YEK/NSK; elic. Oct. 13, 2021)

In light of the discussion above, the derivation for (247a) is illustrated in (249). The first two structures are analogous to those that we have seen in other parts of this section. (249a) is the output from syntax before any Obliteration has taken place. The phonological forms on non-Agr nodes are added for clarity, though Vocabulary Insertion (VI) has not taken place yet. After multiple rounds of Vocabulary Insertion and Obliteration, we arrive at the structure in (249b), which conforms to the preferences of Agr allomorphy. After all Vocabulary Insertion is complete, the onsetless foot/*V-V violation that resulted from Vocabulary Insertion is repaired via phonological [ʔ]-epenthesis, as shown in (249c). For a step-by-step description and illustration of how I assume Vocabulary Insertion and Obliteration operate in these examples, please see (222) and (223) in section 3.3.1.

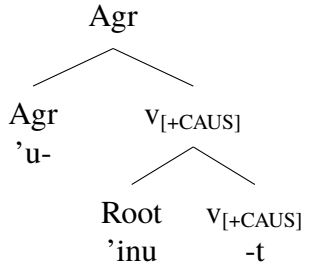
(249) a. Before Obliteration and VI



b. After Obliteration and VI



c. Post-VI [ʔ]-epenthesis



Moving onto $v_{[+HAVE]}$, I adopt from Tan (2023) the idea that many of the remaining verbs that take syllabic Agr prefixes are denominal verbs that combine with another special v head that conditions these Agr allomorphs. As discussed in section 2.2.3, $v_{[+BE]}$ is a v head that combines with nouns (technically nPs) and coverts them into verbs. $v_{[+HAVE]}$ is an allomorph of $v_{[+BE]}$ that occurs when structurally adjacent to a Voice head that introduces an external argument (35), notated as $Voice_{[D]}$. $Voice_{[D]}$ is a cover term for a couple of different Voice heads that introduce external arguments. The first is "default" or "active" Voice, which introduces an external argument with transitive and unergative verbs but does not introduce one with unaccusative verbs (2.4.1). "Default" Voice is only $Voice_{[D]}$ when it introduces an external argument. The second $Voice_{[D]}$ head is deobjective *ma-*, which has the syntactic effect of an antipassive, introducing an external argument but suppressing the internal argument (2.4.3). When $v_{[+BE]}$ is structurally adjacent to any of these Voice heads, $v_{[+HAVE]}$ results. This conditioning is possible, despite the fact that "default" $Voice_{[D]}$ is often Obliterated, because Voice is higher than $v_{[+BE]}$/$v_{[+HAVE]}$, so Vocabulary Insertion occurs on Voice after $v_{[+BE]}$/$v_{[+HAVE]}$. $Voice_{[D]}$ is thus still present to condition $v_{[+HAVE]}$ before it undergoes Vocabulary Insertion and is Obliterated at a later derivational step.

The $v_{[+HAVE]}$ allomorph then grammatically conditions syllabic Agr allomorphs. Many verbs with syllabic agreement can be accounted for in this way. For example, the verb *tika*/*tiik* 'kick' (250a) is a denominal derived from the noun *tika-f* 'heel'. *mena*/*meen* 'sick' (250b) is derived from *menas* 'sickness'. Finally, *foo* 'smell, stink' (250c) is derived from *foo* 'stench, smell'. This is grammatical conditioning because there are many cases, including ones like (250c), where $v_{[+HAVE]}$ has no phonological effect on the pre-Agr stem.

(250) a. Au **'u-tiik** koo.
1SG.NOM 1SG-heel 2SG.ACC
'I kicked you.'
(YEK/NSK; elic. Feb. 2, 2022)

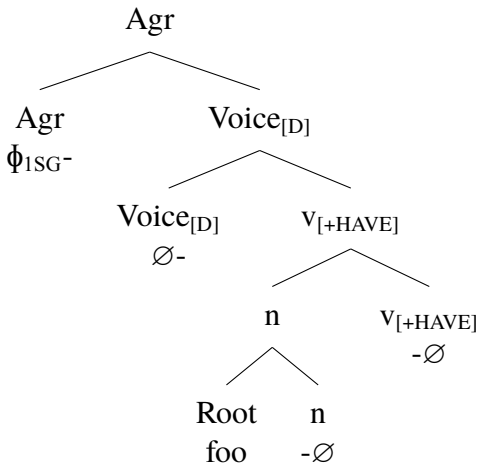
b. Au **'u-meen**.
1SG.NOM 1SG-sickness
'I'm sick.' (YEK; elic. Dec. 15, 2021)

c. Au **'u-foo**.
1SG.NOM 1SG-stink
'I stink.' (Steinhauer 1993: 136)

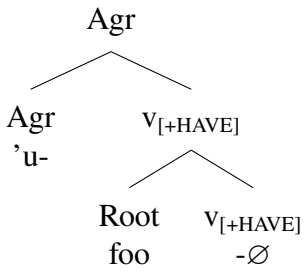
The derivation of verbal complexes with $v_{[+HAVE]}$ is similar to derivations with $v_{[+CAUS]}$, though operating on a somewhat distinct structure. "Default" Voice is null, so it is Obliterated. The n layer is also Obliterated. Notably, $v_{[+HAVE]}$ is not overt itself, but it is not Obliterated. This is evident from the fact that it is still present to condition allomorphy on Agr after it has undergone Vocabulary Insertion but before Agr has. This is in line with the idea that heads with "marked" features are exempted from Obliteration. As will be discussed in section 3.4.6, this marked feature is connected to the ability to affect the phonology of the stem, at least sometimes. No phonological effect associated with $v_{[+HAVE]}$ is evident with *foo* 'smell. stink' in (251), which represents the structure of the verb in (250c), because the noun from which the verb derived is V-final. However, as covered in section 2.2.3, many (but not all) C-final nouns lose their final consonant when they are verbalized. An example of this is *mena*/*meen* (250b), derived from *menas* 'sickness'. The final /s/ of this root can be reconstructed for Proto-Malayo-Polynesian (see 43a). I propose that $v_{[+HAVE]}$ often

triggers a form of substractive morphology that elides the final C of the stem to which it attaches, if such a consonant is available to elide. This is illustrated for *mena/meen* in (252).

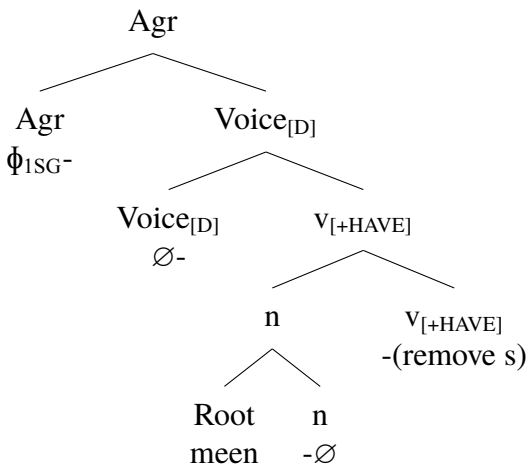
(251) a. Before Obliteration



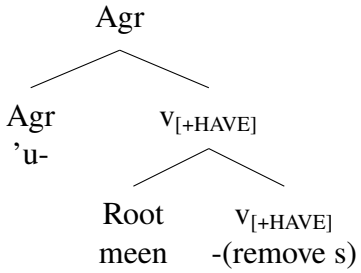
b. After Obliteration



(252) a. Before Obliteration



b. After Obliteration



The allomorphy conditioned by $v_{[+CAUS]}$ and $v_{[+HAVE]}$ is interesting for two reasons. First, it says something about the types of linear and/or structural relationship morphemes can have to be able to interact for allomorphy. These examples provides clear evidence for allomorphy based on structural adjacency rather than linear adjacency. $v_{[+CAUS]}$ and $v_{[+HAVE]}$ are often null, and even when they are overt, $v_{[+CAUS]}$ is a suffix and $v_{[+HAVE]}$ enacts subtractive morphology on the final consonant of the root, not anywhere adjacent to Agr. One way to view this is that even if $v_{[+CAUS]}$ and $v_{[+HAVE]}$ are not linearly adjacent to Agr, they head stems that are both linearly and structurally adjacent to Agr after Obliteration. This suggests Agr looks at the whole stem to which it attaches, rather than just the closest individual morpheme. Clear evidence for this with phonological conditioning will be discussed in section 3.4.3, but it is also compatible with the examples here.

Second, this allomorphy is interesting is because it says something about the types of *conditioning* that different morphemes can have on one another. Going against theories like Bobaljik (2000), the analysis here postulates that $v_{[+CAUS]}$ and $v_{[+HAVE]}$ grammatically condition allomorphy on a node further out in the structure. To maintain the analysis of $v_{[+CAUS]}$ and $v_{[+HAVE]}$ as v heads, we must assume this is a case of inward-sensitive morphologically conditioned allomorphy. Other such cases are discussed in Embick (2015) and Harizanov & Gribanova (2014)). This suggests that Vocabulary Insertion does not overwrite morphosyntactic information with phonological information. Instead, it simply adds phonological information into the derivation. This phonological information at least includes phonemes and linearization information (e.g. whether something is a prefix, suffix, or freestanding).

3.4.3 Phonological conditioning: Long stems override $v_{[+CAUS]}$ and $v_{[+HAVE]}$

Cases of conditioning based on the length of the stem demonstrate the need to look at structurally adjacent constituents of morphemes, not just the structurally adjacent morpheme. Such cases also demonstrate the supremacy of phonological factors over grammatical ones when they conflict in their choice of Agr allomorph.

To evaluate these cases, it is important to understand how Uab Meto syllables are determined. Recall that Uab Meto has pervasive metathesis of the final CV sequence of roots to a VC sequence in various environments, so determining the number of syllables is not always straightforward. A detailed explanation of Uab Meto syllable and foot structure is provided in section 3.3.2. A very brief summary is that most Uab Meto roots can be parsed into one disyllabic foot (Edwards 2020: 108). There are two possible foot structures: (C)V(C)V(C) and (C)VVCV(C). In the (C)VVCV(C) case, as with a root like *aena* 'run' (241), the two adjacent vowels are parsed into a diphthong within one syllable, and the third vowel is the nucleus of the second syllable. In all other cases, the two vowels are nuclei of separate syllables. This includes roots that look monosyllabic but actually consist of a sequence of identical vowels like *sii* 'sing'. One piece of evidence for the separateness of these vowels is that the nominalizing suffix *-'* used with stative *ma-*, like other /-ʔ/ suffixes, can infix between them as with VV-final verbs like *sii* 'sing' (226, repeated as 253) and *fee* 'give' (227). The same behavior can be observed when the vowels have distinct qualities, as with *tui* 'write' (254) and distinguishes itself from the lack of infixation seen in CV-final verbs like *tepo* 'hit' (255), where there are not two final vowels to infix between. Verbal forms and nominalizations that use non-infixing suffixes are provided for comparison.

(253) a. Hoo **m-sii** **sii-t**.
2SG.NOM 2SG-sing sing-NMLZ
'You sing a song.'
(YEK/NSK/YFB; elic. Jun. 25, 2022)

b. Sii-t nae **ma-si<'>i**.
sing-NMLZ DEM.DIST STAT-sing<NMLZ>
'That song is sung.'
(YEK; elic. Feb. 23, 2022)

(254) a. Buuk=be **ma-tu<'>i**.
book=DEF STAT-write<NMLZ>
'The book was written.'
(YEK; elic. Aug. 4, 2021)

b. Au **'-tui** koo **tui-s**.
1SG.NOM 1SG-write 2SG.ACC write-NMLZ
'I write you a note.'
(SRB/YEK/NSK/YFB; elic. Jun. 25, 2022)

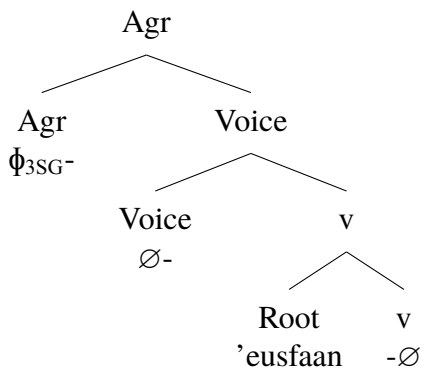
(255) a. Au **ma-tepo-'**.
1SG.NOM STAT-hit-NMLZ
'I was hit.' (YEK; elic. Jul. 28, 2021)

b. **tepo-s**
hit-NMLZ
'a hit' (Steinhauer 1993: 151)

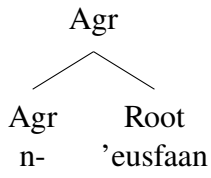
The takeaway from this is that one can usually determine the number of syllables in a verb root from the number of vowels represented in the orthography, apart from the special exception of (C)VVCV(C) verbs noted above, which are disyllabic due to diphthongization of the first two vowels. Any root or stem larger than these structures has 3+ syllables and thus constitutes the relevant σσσ+ environment to be discussed below. An alternative way of formalizing σσσ+ based on discussion in in section 3.3.2 is that the relevant stems are larger than a foot, not necessarily two or more feet, but larger than a foot. I see no particular analytical reason to choose one formalization over the other, so I will continue to use σσσ+, because it is more straightforward to notate than something like "σFt or FtFt+".

The conditioning of asyllabic agreement prefixes on σσσ+ stems requires making reference to the whole stem, rather than just the morpheme that is immediately structurally and/or phonologically adjacent to it. In a simple case like (171a), with only the quadrisyllabic root overt, this distinction does not matter, because Obliteration reduces the structure to Agr and the root (256).

(256) a. Before Obliteration

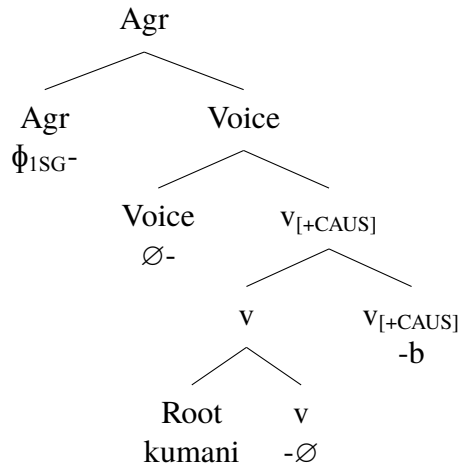


b. After Obliteration

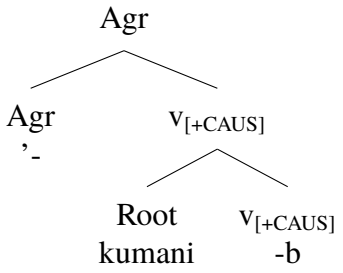


The need to be able to reference the whole stem is made clear when there are multiple morphemes that remain after Obliteration. For example, the causativized version of *kumani/kumaen* 'smile', *kumanib* 'make smile' (239d), has an overt $v_{[+CAUS]}$ suffix *-b* that is not Obliterated (257). Thus, after Obliteration, $v_{[+CAUS]}$ is the structurally adjacent head to Agr. $v_{[+CAUS]}$ itself only consists of a single consonant. On its own it is well short of being trisyllabic or longer. Despite this, the expected conditioning of syllabic Agr by $v_{[+CAUS]}$ does not occur, because the root is trisyllabic. This demonstrates that Agr is able to see the phonology of the whole stem headed by $v_{[+CAUS]}$, not just $v_{[+CAUS]}$ itself.

(257) a. Before Obliteration



b. After Obliteration



The idea that the whole stem must be considered in the syllable count is further bolstered by verbs formed from nominal compounds. Recall from (40b) in section 2.2.3 that *foo* 'smell' is a denominal verb that combines with $v_{[+HAVE]}$, and thus in its baseline use takes syllabic Agr (187a, repeated as 258a). *foo* can be used as a noun in the compound *foo méni* 'fragrant smell' (258b), Interestingly, when one wants to express this compound as a verb, the whole compound is turned into a denominal verb. The compound stem is quadrisyllabic, and so the length of this stem overrides conditioning for syllabic Agr by $v_{[+HAVE]}$, and an asyllabic Agr allomorph is inserted (258c).

(258) a. Ika' nae **na-foo**.
fish DEM.DIST 3-smell
'That fish stinks.' (SRB/YFB/YEK/NSK; elic. Jul. 2, 2022)

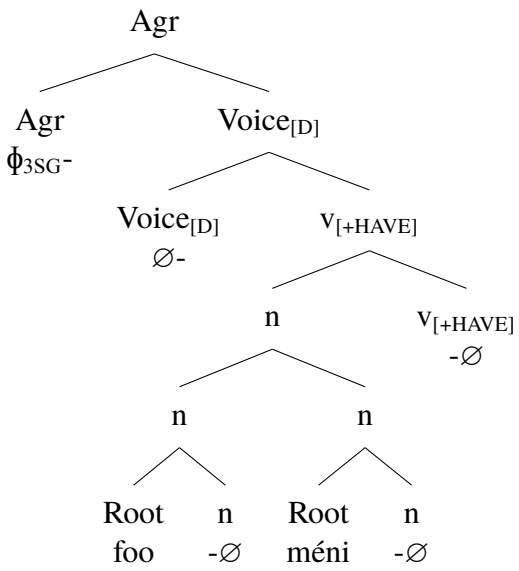
b. Aen=le n-aak aen muti', aen molo', aen oben, aen
rice.plant=DEF 3-say rice.plant white rice.plant yellow rice.plant red rice.plant
foo méni.
smell fragrant
'The kinds of rice plant include white rice, yellow rice, red rice, fragrant rice.'
(HNK; AOZ2019-MON006, line 642)

c. **n-foo méni**
3-smell fragrant
'smells fragrant' (Tan 2023: 211)

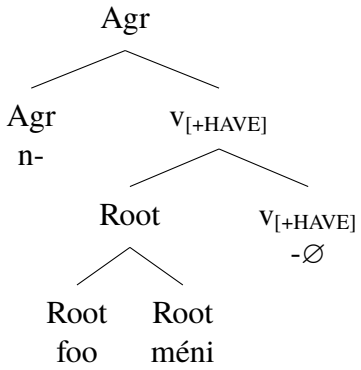
I follow Tan (2023: 211-212) in assuming that these compounds are only categorized as verbs once (i.e. there is only one v head), but I depart from her analysis in my assumption that the component parts are first categorized as nouns. The nouns join together into a complex head before being verbalized. I will present more evidence for this below. For now, example structures for (258c) before and after Obliteration are provided in (259). Despite being null, $v_{[+HAVE]}$ is not Obliterated, because it often has an overt phonological presence through causing deletion of the final consonant

of C-final nouns that it verbalizes. In this case both nouns are V-final, so no change can be seen. See section 2.2.3 for relevant data and discussion.

(259) a. Before Obliteration



b. After Obliteration



Notably, no individual morpheme in (259b) is σσσ+ on its own, but Agr still behaves as if whatever it is attaching to is of this length. This demonstrates that Agr can look at the phonology of the entire stem to which it is structurally adjacent after Obliteration. It does not only consider the morpheme to which it is structurally adjacent ($v_{[+HAVE]}$) in this case nor only the morpheme to which is it linearly adjacent (the first root *foo* in this case). In considering the whole stem, the stem's phonology overrides grammatical conditioning by $v_{[+HAVE]}$ for a syllabic Agr prefix.

Evidence that roots in these compound structures are nominalized before becoming verbs comes from examples like (260a) and (260b), which show the denominal *bua* 'gather' with an incorporated object. I am not fully certain of the syntactic relation between the denominal verb and its object in the compound, but what is clear and notable about these examples is that they feature overt nominalizing heads on the object, either a nominalizing *-'* (260a) or 3SG inalienable possessor agreement *-n* (260b); body-part nouns often show agreement with their possessors. An example derivation with the first compound in (260b), *mbua 'niman*, is shown in (261). As with the stem in (259), this incorporation of an additional disyllabic root yields a quadrisyllabic stem, overriding the conditioning for syllabic Agr from $v_{[+HAVE]}$ that would take effect if there were no extra incorporated noun, as in (260c) where such a noun is lacking.

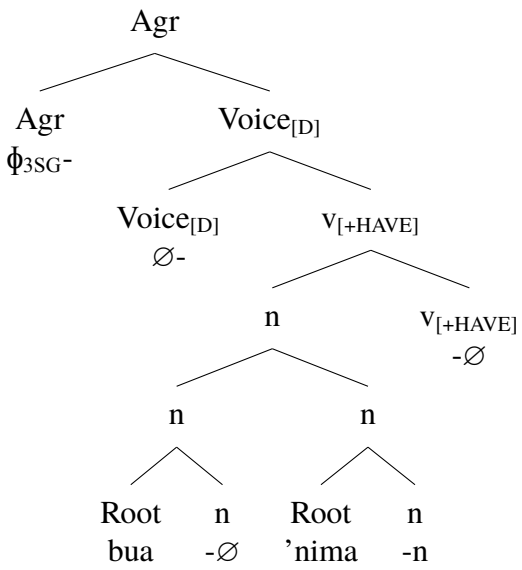
(260) a. Fun uuln=e n-mófu=t ina **n-bua 'nima-'**=te ...
because rain=DEF 3-fall=SET 3SG.NOM 3-clump arm-NMLZ=SET ...
'because when the rain falls he crosses his arms... (HNK; AOZ2019-MON006, lines 549-550)

b. Ina **m-bua 'nima-n**|a **m-bua hae-n**.
3SG.NOM 3-clump arm-3SG.INAL|EPEN 3-clump leg-3SG.INAL

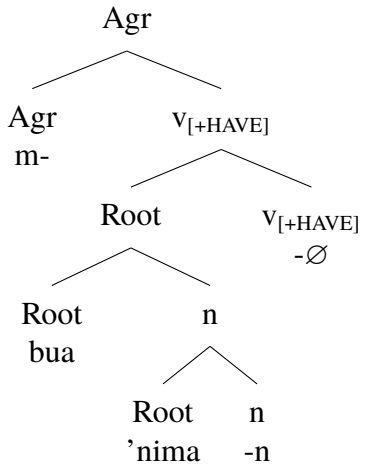
'He crosses his arms, crosses his legs.' (HNK; AOZ2019-MON006, line 591)

c. **Na-bua** n-ook ah usi-f Noetoko.
3-clump 3-with FILL king-KIN Noetoko
'It joined with the king of Noetoko.' (YAF; AOZ2019-MON004, lines 270-272)

(261) a. Before Obliteration



b. After Obliteration



As a final example of the interaction of σσσ+ stems with $v_{[+CAUS]}$ and $v_{[+BE]}/_{[+HAVE]}$, I now turn to a stem that features both, *n'oemetab* 'make dirty' (262a), from the uncausativized denominal verb *n'oemetan* 'be dirty' (262b), ultimately from the nominal compound *oe metan* 'black water, dirt' (262c) (Tan 2023: 328). It is difficult to tell whether the uncausativized verb (262b) is formed with $v_{[+BE]}$ or $v_{[+HAVE]}$, because a quadrisyllabic stem would take asyllabic Agr in either case, though I suspect in takes $v_{[+HAVE]}$, which is the choice of a semantically similar denominal verb *naleke'* 'be dirty', formed from the noun *leke* 'dirt, grime' (46). In the causative form, as discussed in section 2.3.2 and illustrated in (83), $v_{[+BE]}$ is inserted due to the lack of structural adjacency between $v_{[+BE]}/_{[+HAVE]}$ and $Voice_{[D]}$ when $v_{[+CAUS]}$ is present. The reader may have also noticed that the final consonant of the second root in the compound, *metan*, is elided in the causative form of the verb. For reasons that will be discussed in section 3.4.6, $v_{[+BE]}$ elides in the presence of $v_{[+CAUS]}$, so it must be able to trigger elision of the final consonant of the root before it is Obliterated. How the various processes must be timed to produce the correct form of verbs like (262a) will be discussed there.

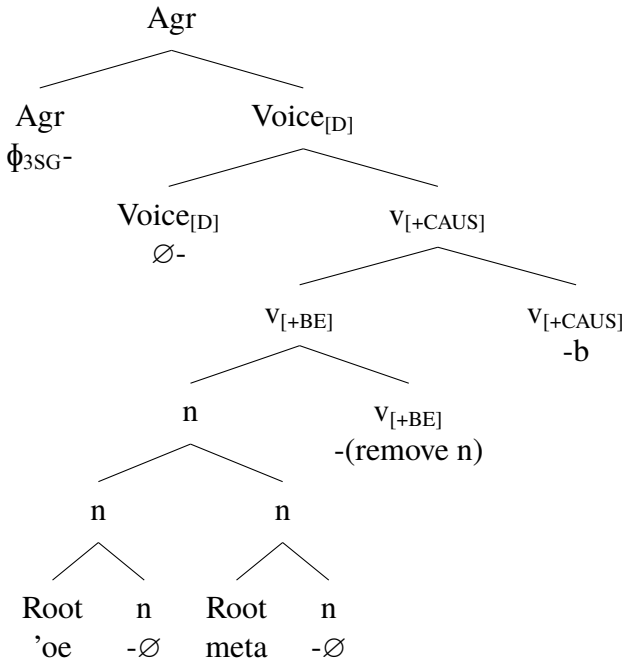
(262) a. **n-'oe-meta-b**
3-water-black-CAUS
'make dirty'
(Tan 2023: 328)

b. **n-'oe-metan**
3-water-black
'be dirty'
(Tan 2023: 328)

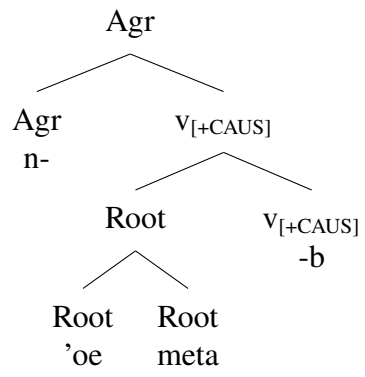
c. **oe metan**
water black
'black water'
(YEK; elic. Jan. 24, 2024)

For now, what is important to take away from (262a) is that the phonology of the whole stem can condition asyllabic Agr, overriding conditioning for syllabic Agr by $v_{[+CAUS]}$. As with the stem in (261), no individual morpheme is trisyllabic or longer ($\sigma\sigma\sigma$+) on its own, but the stem is collectively longer, and this is sufficient. The relevant structures before and after Obliteration are provided in (263).

(263) a. Before Obliteration



b. After Obliteration



This section is interesting both for what it reveals about the constituents relevant to allomorphy and how conflicts between different types of allomorphic conditioning are resolved. Regarding relevant constituents, all the examples in the range of (256)-(263) show that Agr can see the phonology of whatever constituent it ends up adjacent to after Obliteration, regardless of whether the remaining constituent is a single morpheme or multiple. There are cases like (259), (261),and (263) where Agr is neither structurally nor linearly adjacent to a morpheme that is $\sigma\sigma\sigma$+, demonstrating that the whole stem (Paster 2009: 28) or span (Svenonius 2012, Merchant 2015) to which Agr is structurally adjacent must be seen and taken into account by Agr in order to select the correct asyllabic agreement prefix.

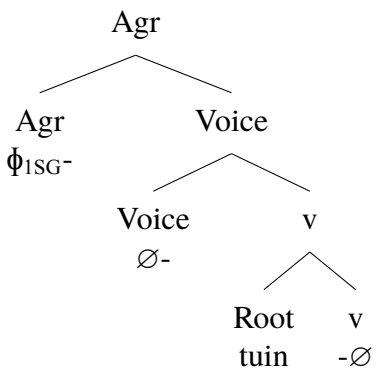
Regarding conflicts between different types of allomorphic conditioning, (257) and (263) show that $\sigma\sigma\sigma$+ overrides $v_{[+CAUS]}$, and (259) and (261) show that $\sigma\sigma\sigma$+ overrides $v_{[+HAVE]}$. These example are interesting, because unlike other cases where the necessity of structural adjacency results in only one type of conditioning being possible, these types of allomorphic conditioning are in direct competition. Phonological and grammatical factors do not exist in any sort of specificity relationship with each other, so there is no obvious way to rule one out based on something like the Subset Principle (Halle & Marantz 1993). Ultimately, one may simply need to stipulate that phonological constraints triumphs over grammatical ones when they conflict. This is the P » M idea from Mc-

Carthy & Prince (1993), or the related idea from Harizanov & Gribanova (2014) of phonological context being more specific than grammatical context. I do not claim to provide evidence for P » M universally. Paster (2009) provides arguments against this idea using evidence from languages like Haitian Creole (i.e. phonologically anti-optimizing allomorphs), but the principle clearly works well for Uab Meto.

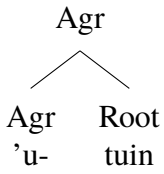
3.4.4 Lexically conditioned allomorphy: Evidence for bivalent features and the referencing of "disagreement"

There are a small numbers of verbs that elude a systematic explanation of their agreement-prefix allomorphy, forcing an appeal to lexical idiosyncrasy. One such verb is *tuin* 'follow' (172b), which does not have a nominal form to my knowledge and does not have a clear causative meaning. Therefore, the simplest analysis in this case is that *tuin* lexically selects for syllabic agreement prefixes. How this works is illustrated in (264). "Default" v and Voice are Obliterated from the structure since they are null and have no marked features like $v_{[+CAUS]}$, $v_{[+BE]}$, or $v_{[+HAVE]}$. This creates adjacency between the root and Agr, allowing the root to condition syllabic Agr prefixes.

(264) a. Before Obliteration



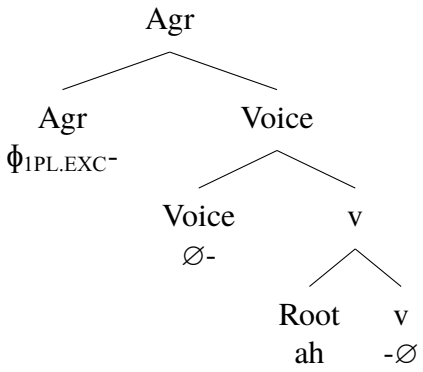
b. After Obliteration



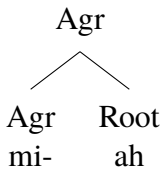
The irregular verb *ha/ah* 'eat' (174) can also be analyzed this way. An alternative analysis would appeal to the fact that *ha/ah* is unique in being the only lexical root with one vowel, rather than two. Edwards (2020: 108) proposes that all lexical words in Uab Meto must contain at least one foot, which he defines as at least two vowels with optional consonants in a (C)V(C)V(C) sequence. The use of syllabic Agr prefixes with 'eat' could be a solution to allow it to obey this word minimality requirement, e.g. *'u-ah* '(I) eat.'. This does not however, explain why the underlying root /ha/ is able to undergo metathesis to create a situation of hiatus across morpheme boundaries, which is usually illicit (*V-V). The fact that the optimal solution violates a general morphophonological constraint of the language either suggests lexical selection, or it suggests that in the phonology, disyllabic word minimality outranks *V-V. It is difficult to tell which analysis is preferable given that this is the only monosyllabic verb root, and I leave the full analysis of this pattern to future research. An ideal explanation would capture the connection between choosing Agr allomorphs that make

the resulting word disyllabic and satisfying Uab Meto's word minimality requirement. For now, a derivation attributing the syllabic prefix of (174e) to lexical conditioning is shown in (265).

(265) a. Before Obliteration



b. After Obliteration



Verbs like *tuin* 'follow' and *ha/ah* 'eat' are irregular only in their conditioning of syllabic agreement prefixes. The roots otherwise behave normally. However, there are a couple of verbs, both meaning something like 'come', that have idiosyncratic stem-vowel changes in their agreement paradigms. One of these verbs, *uu/ii* (175, repeated as 266), takes the asyllabic Agr prefixes expected of a V-initial uncausativized verb, but it has a special root form *ii* with 1PL.EXC and 2PL subjects. Deriving the correct forms of this verb proceeds initially as with any verb with lexical conditioning of Agr. After Obliteration we end up with a verb consisting of just Agr and the root. From here an additional step is needed to account for the root suppletion, a Readjustment Rule (Embick 2015: 201-203) that replaces the default *uu* form of the root with *ii* in the context of 1PL.EXC/2PL agreement after it has undergone Vocabulary Insertion. This is analogous to to replacing *feel* with *fel* in the context of past tense ($T_{[+PAST]}$) in *felt*, as shown in (222e). This Readjustment Rule is needed because the root does not see Agr and its associated features until the intervening nodes have been Obliterated. The process of deriving *mii* '(y'all) come' (266f) is illustrated in (267).

(266) a. Au **'-uu**.
1SG.NOM 1SG-come
'I come.' (YEK; elic. Aug. 1, 2019)

b. Hoo **m-uu**.
2SG.NOM 2SG-come
'You (sg.) come.' (YEK; elic. Aug. 1, 2019)

c. Iin **n-uu**.
3SG.NOM 3-come
'He/she/it comes.' (YEK; elic. Aug. 1, 2019)

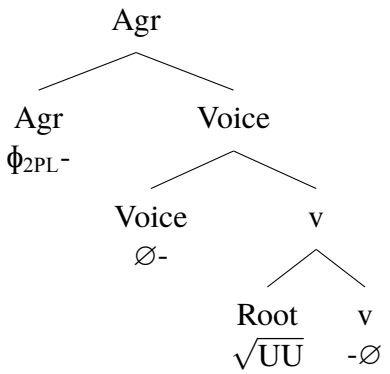
d. Hiit **t-uu**.
1PL.INC.NOM 1PL.INC-come
'We (inc.) come.' (YEK; elic. Aug. 1, 2019)

e. Hai **<u>m-</u>ii**.
1PL.EXC.NOM 1PL.EXC-come
'We (exc.) come.' (YEK; elic. Aug. 1, 2019)

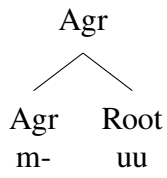
f. Hii **<u>m-</u>ii**.
2PL.NOM 2PL-come
'You (pl.) come.' (YEK; elic. Aug. 1, 2019)

g. Siin **<u>n-</u>uu/<u>n-</u>uu**=n/**<u>n-</u>uu**=nun.
3PL 3-come/3-come=PL/3-come=PL
'They come.' (YEK; elic. Aug. 1, 2019)

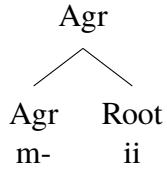
(267) a. Before Obliteration/VI



b. After Obliteration/VI



c. Readjustment Rule for $\sqrt{UU}$



A key point of interest in the paradigm in (266) is the observation that the two forms that have the special *ii* form of the root are the 1PL.EXC and 2PL forms. This is an interesting syncretism, because according to a typical decomposition of person and number using privative features, there is nothing that distinguishes 1PL.EXC and 2PL to the exclusion of 1PL.INC. The privative features in Table 3.4 are based on the analysis of pronoun features in Boumaa Fijian in Harley & Ritter (2002: 495), with updates to feature names based on Deal (2024: 46). SPKR = speaker, ADDR = addressee, PART = participant, π= person, and PL = plural.

		SG	PL
1ST	**INC**		SPKR, ADDR, PART, π, PL
	EXC	SPKR, PART, π	SPKR, PART, π, PL
2ND		ADDR, PART, π	ADDR, PART, π, PL
3RD		π	π, PL

Table 3.4: Privative person and number features

To capture this pattern, I follow Scott (2023: 181-183) in her adoption of bivalent person features, herself referencing Harbour (2016). As shown in Table 3.5, I mostly adopt Scott (2023)'s features,

except that I replace ±PART with ±ADDR to avoid confusion with the use of PART to refer to any 1st- or 2nd-person pronoun/agreement morpheme in privative-feature geometries and also some bivalent-feature geometries (Arregi & Nevins 2007). I also represent number as ±PL instead of ±SG. This choice is because I wish for all "marked" ϕ-features to have a positive value. I assume that these features apply to all ϕ-feature-bearing elements in Uab Meto, including pronouns, verbal agreement prefixes, and inalienable agreement suffixes. Other elements can reference these features in their allomorphy.

		SG	**PL**
1ST	**INC**		+SPKR, +ADDR, +PL
	EXC	+SPKR, −ADDR, −PL	+SPKR, −ADDR, +PL
2ND		−SPKR, +ADDR, −PL	−SPKR, +ADDR, +PL
3RD		−SPKR, −ADDR, −PL	−SPKR, −ADDR, +PL

Table 3.5: Bivalent person and number features

Scott (2023) posits this analysis to account for a particular enclitic *=i/=y* in San Juan Atitán Mam, that appears only in person combinations where SPKR and ADDR disagree, namely 1SG, 2SG, 1PL.EXC and 2PL (Table 3.6). Crucially, Scott (2023) specifies that the vocabulary items that show syncretism between 1SG and 2SG and/or 1PL.EXC and 2PL, such as *=i/=y*, make reference to a *disagreement* in the values for SPKR and ADDR (268a). They disagree if one is + and the other is −. It does not matter which is + and which is −. This featural difference is notated with α and ¬α, where α is either + or −m and ¬α is the opposite. For Uab Meto, only 1PL.EXC and 2PL take the *ii* allomorph of *uu* 'come', while 1SG and 2SG take the default *uu* allomorph, so +PL needs to be specified (268b). I should note that (268a) is a rule specifying the features on the Mam enclitic *=i* itself, while (268b) and (268c) are allomorphy rules.

		SG	**PL**
1ST	**INC**		qo
	EXC	qin**=i**	qo**=y**
2ND		**=i**	q**=i**
3RD		∅	qa

Table 3.6: San Juan Atitán Mam non-verbal subject pronouns (Scott 2023: 196)

(268) **San Juan Atitán Mam *=i* (disagreement enclitic)**

a. =i ⟷ [αSPKR, ¬αADDR] (based on Scott (2023: 197)

Uab Meto *uu/ii* 'come'

b. $\sqrt{\text{UU}}$ ⟷ ii / [αSPKR, ¬αADDR, +PL] _

c. $\sqrt{\text{UU}}$ ⟷ uu / elsewhere

To complete the analysis of the paradigm in (266), I propose the vocabulary items in (269) for Uab Meto verbal agreement prefixes. These reference the ϕ-features Agr copies from the DP with which it agrees. Of course, the choice between asyllabic and syllabic allomorphs is governed by the various factors discussed in section 3.4 and summarized in (243). 3rd-person *n-/na-* is just specified as [Agr], rather than [Agr, −SPKR, −ADDR], because it is also the default form of agreement used when there is no controller, both in dictionary entries (270a) and wordlist elicitation (270b).

(269) a. [Agr, +SPKR, −ADDR, −PL] ⟷ *'-/'u-* (1SG)
b. [Agr, −SPKR, +ADDR, −PL] ⟷ *m-/mu-* (2SG)
c. [Agr, +SPKR, +ADDR, +PL] ⟷ *t-/ta-* (1PL.INC)
d. [Agr, αSPKR, ¬αADDR, +PL] ⟷ *m-/mi-* (1PL.EXC/2PL)
e. [Agr] ⟷ *n-/na-* (3/default)

(270) a. **n-**hae
3-tired
'tired, exhausted'
(Manhitu 2007: 6)

b. **na-**baak
3-steal
'steal'
(YEK; AOZ2019-WORDLIST001, line 72)

The "disagreement" analysis of 1PL.EXC/2SG syncretism receives further support from the enclitic *=ku/=ki* 'oneself' (emphatic)/'by oneself', where most subjects take the *=ku* form but 1PL.EXC/2PL subjects take the *=ki* form (271). The allomorphy associated with this clitic can be analyzed very similarly to the *uu/ii* 'come' allomorphy. Notice that there is a ϕ-feature-bearing morpheme linearly and presumably structurally adjacent to *=ku/=ki*, the inalienable agreement suffixes. Thus, we can write allomorphy rules for *=ku/=ki* like (272).

(271) a. Au '-tuup**=ku**-k.
1SG.NOM 1SG-sleep=self-1SG.INAL
'I sleep by myself.' (Steinhauer 1993: 150)
b. Hoo m-tuup**=ku**-m.
2SG.NOM 2SG-sleep=self-2SG.INAL
'You (sg.) sleep by youself.' (Steinhauer 1993: 150)
c. Ina n-tuup**=ku**-n.
3SG.NOM 3-sleep=self-3SG.INAL
'He/she/it sleeps by himself/herself/itself.' (Steinhauer 1993: 150)
d. Hita ∅-tuup**=ku**-k.
1PL.INC.NOM 1PL.INC-sleep=self-1PL.INC.INAL
'We (inc.) sleep by ourselves.' (Steinhauer 1993: 150)
e. Hai m-tuup**=ki**-m.
1PL.EXC.NOM 1PL.EXC-sleep=self-1PL.EXC.INAL
'We (exc.) sleep by ourselves.' (Steinhauer 1993: 150)

f. Hii m-tuup**=ki**-m.
2PL.NOM 2PL-sleep=self-2PL.INAL
'You (pl.) sleep by yourselves.' (Steinhauer 1993: 150)

g. Sina n-tuup**=ku**-k.
3PL 3-sleep=self-3PL.INAL
'They sleep by themselves.' (Steinhauer 1993: 150)

(272) Uab Meto *=ku*/*=ki* '(by) oneself'

a. $\sqrt{=\text{KU}}$ $\longleftrightarrow$ =ki / [αSPKR, $\neg\alpha$ADDR, +PL] _

b. $\sqrt{=\text{KU}}$ $\longleftrightarrow$ =ku / elsewhere

The morphology of the highly irregular verb *Vma*/*VVm* 'come' (176, repeated in 273) can also be accounted for by appealing to "disagreement" in feature values. *Vma*/*VVm* 'come' is unique in that it dispels with the typical Agr prefixes in many of its forms. No [ʔ-]/[ʔu-] or [m-]/[mu-] prefix is present at all in the 1SG/2SG form *óma*/*óóm*, nor is there a [m-]/[mi-] prefix in the 1PL.XC/2PL form *éma*/*éém*[16]. This is the only verb in Uab Meto of which I am aware that shows subject agreement primarily through vowel changes in the root.

(273) **Original glossing**

a. Au **<u>óóm</u>**.
1SG.NOM 1SG.come
'I come.' (YEK; elic. Jul. 15, 2019)

b. Hoo **<u>óóm</u>**.
2SG.NOM 2SG.come
'You (sg.) come.'
(YEK; elic. Jul. 15, 2019)

c. Iin **<u>neem</u>**/**<u>nema</u>**.
3SG.NOM 3.come/3.come
'He/she/it comes.'
(YEK; elic. Jul. 15, 2019)

d. Hiit **<u>teem</u>**.
1PL.INC.NOM 1PL.INC.come
'We (inc.) come.'
(YEK; elic. Jul. 15, 2019)

e. Hai **<u>éém</u>**.
1PL.EXC.NOM 1PL.EXC.come
'We (exc.) come.'
(YEK; elic. Jul. 15, 2019)

f. Hii **<u>éém</u>**.
2PL.NOM 2PL.come
'You (pl.) come.'
(YEK; elic. Jul. 15, 2019)

g. Siin **<u>neem</u>**/**<u>nema</u>**=n.
3PL 3.come/3.come=PL
'They come.' (YEK; elic. Jul. 15, 2019)

Notably, the syncretisms in this verb beyond the typical 3rd-person one are exactly the ones that would be predicted by an analysis that allows vocabulary items to reference disagreeing feature values for SPKR and ADDR. 1SG and 2SG disagree on the values of these features while both being singular, and 1PL.EXC and 2PL disagree on the values of these features while both being plural. Also

[16] See (177) for examples of the unmetathesized *óma* and *éma* forms.

notably, the remaining 1PL.INC, 3SG, and 3PL forms all have the same vowels *ema*/*eem* and begin with what looks suspiciously like their usual asyllabic agreement prefixes before a V-initial root.

I propose that *Vma*/*VVm* 'come' and Agr undergo Fusion (Halle & Marantz 1993) when they are adjacent to each other, and when Agr has disagreeing feature values for SPKR and ADDR. If SPKR and ADDR are both + or both −, there is no Fusion, and a default root form *ema*/*eem* is inserted along with the regular agreement prefix for that person/number combination. These morphological structures are represented in the revised glossing in (274).

(274) **Revised glossing**

a. Au **óóm**.
1SG.NOM 1SG.come
'I come.' (YEK; elic. Jul. 15, 2019)

b. Hoo **óóm**.
2SG.NOM 2SG.come
'You (sg.) come.'
(YEK; elic. Jul. 15, 2019)

c. Iin **n-eem**/**n-ema**.
3SG.NOM 3-come/3-come
'He/she/it comes.'
(YEK; elic. Jul. 15, 2019)

d. Hiit **t-eem**.
1PL.INC.NOM 1PL.INC-come
'We (inc.) come.'
(YEK; elic. Jul. 15, 2019)

e. Hai **éém**.
1PL.EXC.NOM 1PL.EXC.come
'We (exc.) come.'
(YEK; elic. Jul. 15, 2019)

f. Hii **éém**.
2PL.NOM 2PL.come
'You (pl.) come.'
(YEK; elic. Jul. 15, 2019)

g. Siin **n-eem**/**n-ema**=n.
3PL 3-come/3-come=PL
'They come.' (YEK; elic. Jul. 15, 2019)

One can formalize the Fusion rule as in (275). If Agr has a particular ϕ-feature specification and is structurally adjacent to *Vma*/*VVm* 'come', they Fuse into a single terminal node. Given this rule, vocabulary entries for *Vma*/*VVm* 'come' are provided in (276).

(275) **Uab Meto Agr-$\sqrt{\text{Vma/VVm}}$ 'come' Fusion**

[Agr, αSPKR, ¬αADDR]-$\sqrt{\text{Vma/VVm}}$ ⟶ [Agr, αSPKR, ¬αADDR, $\sqrt{\text{Vma/VVm}}$]

(276) a. [Agr, αSPKR, ¬αADDR, −PL, $\sqrt{\text{Vma/VVm}}$] ⟷ [óma/óóm] (1SG/2SG)

b. [Agr, αSPKR, ¬αADDR, +PL, $\sqrt{\text{Vma/VVm}}$] ⟷ [éma/éém] (1PL.EXC/2PL)

c. [$\sqrt{\text{Vma/VVm}}$] ⟷ [ema/eem] (elsewhere)

Evidence that *ema*/*eem* is the default form of the root comes from the fact that it is the form chosen in nominalizations (277), which lack Agr and presumably any ϕ-features as well. Additional evidence that the root is vowel-initial, rather than the default form containing the [n] of the 3SG/3PL form or the [t] of the 1PL.INC form, comes from the fact that there is [mn] epenthesis, which occurs when V-initial verb roots are nominalized. This occurs for various V-initial roots that we have seen in verbs, such as *ami*/*aem* 'look for', *inu*/*iun* 'drink', and *aena*/*aen* 'run' (278). Verbal examples of

these roots without [mn] can be found in (118a, 137b, 185, 233). This [mn] epenthesis does not occur with C-initial verb roots like *kena/keen* 'shoot', *punu/puun* 'rot', and *lómi/lóim* 'like' (279).

(277) a-**mn-ema**-t
SUB.NMLZ-EPEN-come-NMLZ
'one who comes, origin' (Edwards 2020: 443)

(278) a. a-**mn-ami**-t
SUB.NMLZ-EPEN-look.for-NMLZ
'(a) searcher' (YEK; elic. Jan. 24, 2024)

b. a-**mn-inu**-t
SUB.NMLZ-EPEN-drink-NMLZ
'(a) drinker' (YEK; elic. Jan. 24, 2024)

c. a-**mn-aena**-t
SUB.NMLZ-EPEN-run-NMLZ
'(a) runner' (YEK; elic. Feb. 2, 2024)

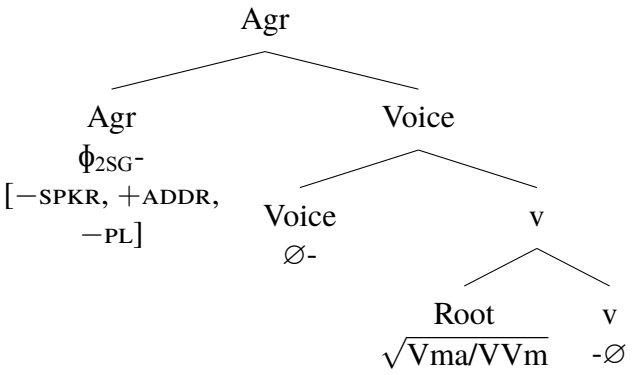
(279) a. a-**kena**-t
SUB.NMLZ-shoot-NMLZ
'(a) shooter'
(YEK; AOZ2019-MON002, line 30)

b. a-**punu**-t
SUB.NMLZ-rot-NMLZ
'(a) rotten one' (YEK; elic. Jan. 26, 2022)

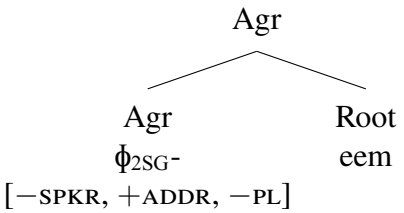
c. a-**lómi**-t
SUB.NMLZ-like-NMLZ
'fan, lover' (Steinhauer 1996a: 228)

I will now illustrate this analysis with two derivations, one involving Fusion and another not involving it. A derivation for the fused 2SG form proceeds as in (280). The structure starts as in (280a). It assumes that no Obliteration or Vocabulary Insertion has taken place, though Agr has already probed and copied ϕ-features from the DP it has agreed with. Then, in order to be consistent with the other derivations, I must say that $\sqrt{\text{Vma/VVm}}$ first undergoes Vocabulary Insertion with the default root form *ema/eem*. In all the verb forms in (274), "default" Voice and v are null and thus Obliterated. (280b) shows a structure where $\sqrt{\text{Vma/VVm}}$, v, and Voice have all undergone Vocabulary Insertion, and v and Voice have been Obliterated. This creates a configuration where Agr and the root are sisters. From this point, since Agr has a feature bundle matching the description for the rule in (275), namely differing values for SPKR and ADDR, Fusion of Agr and the root node occurs (280c). Then a Readjustment Rule rewrites *ema/eem* to the appropriate fused Agr-Root form, *óma/óóm* (280d), because there is also a −PL feature.

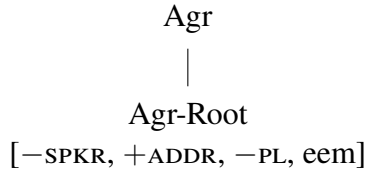
(280) a. Before Obliteration/VI



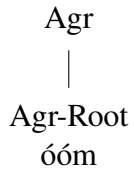
b. After Obliteration/VI on $\sqrt{\text{Vma/VVm}}$



c. After Fusion

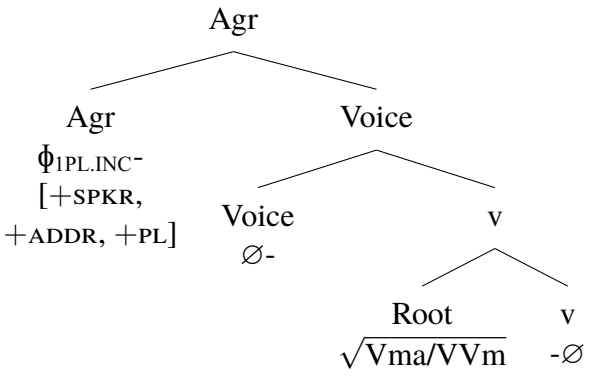


d. Readjustment Rule for Fused Agr.$\sqrt{\text{Vma/VVm}}$

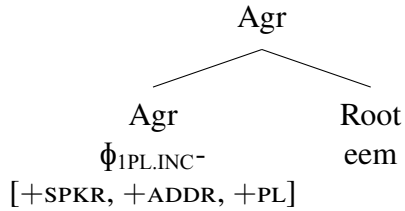


The derivation for the non-Fused 1PL.INC form is simpler. The starting structure in the same, apart from the different ϕ-features (281a). Then, "default" Voice and v undergo VI, are realized as null, and are thus Obliterated, creating a structure where Agr and the root are sisters (281b). VI on $\sqrt{\text{Vma/VVm}}$ has also occurred by this point, leading to the insertion of default *eem*. At this point the derivations diverge. Agr has matching values for SPKR and ADDR, + in this case, so it lacks the appropriate feature specification for Fusion. Agr remains a distinct node, and it undergoes VI separately (281c), using the appropriate 1PL.INC entry in (269c).

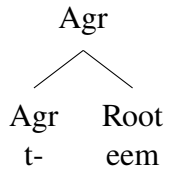
(281) a. Before Obliteration/VI



b. After Obliteration/VI on $\sqrt{\text{Vma/VVm}}$



c. After VI on Agr



Examples like (280) are important, because they demonstrate the necessity of the Obliteration operation. Agr and the root are only sisters in the tree after Voice and v have been Obliterated from the structure. Halle & Marantz (1993: 116) define the conditions under which Fusion can occur strictly: "fusion takes two terminal nodes that are sisters under a single category node and fuses them into a single terminal node". Thus, Obliteration is necessary to create the right structural configuration.

As a final note for this section, the *=ku*/*=ki* 'oneself' examples and the analysis in (271) and (272) demonstrated the use of inalienable possessor agreement, which commonly occurs on nouns denoting body parts and parts of wholes. There is also a separate paradigm of possessor-agreement suffixes used with kinship terms. Though I have spent much time here analyzing the various facets of verbal agreement, I will not provide a full treatment of nominal agreement. For now I will do two things. First, I will provide the inalienable and kinship agreement paradigms in Table 3.7. Corresponding examples of the inalienable and kinship paradigms are provided in (282) and (283) respectively. Most nouns do not agree with their possessors (284). Second, I will say that accounting for these paradigms may require additional stipulations and/or the postulation of additional ϕ-features. The inalienable paradigm has an *-f* suffix used when an inalienable noun lacks a possessor, which is distinct from all other suffixes in the paradigm. Thus, there needs to be a way to distinguish all agreeing forms from the non-agreeing form. This can be accounted for by saying that the *-f* form just expones the inalienable agreement head, without any ϕ-features acquired through agreement. However, the kinship paradigm calls such an analysis into question, since here *-f* is also the 3SG/*3pl* form. In addition, all 1st- and 2nd-person agreement in the kinship paradigm is syncretic. The syncretism between 1st- and 2nd-person and between 3rd-person and the default in the kinship paradigm are captured very easily with a more traditional privative feature geometry, and may warrant the addition of a ±PART feature that distinguishes 1st- and 2nd-person from 3rd-person, in addition to the ±SPKR and ±ADDR that distinguish 1st- and 2nd-person and clusivity. One could also just say that the homophony between inalienable *-f* and kinship *-f* is a coincidence, but I believe that this is an interesting syncretism that warrants an explanation. I leave a full treatment of these paradigms to future work.

INALIENABLE		SG	PL
1ST	**INC**		-k
	EXC	-k	-m
2ND		-m	-m
3RD		-n	-k
Generic		-f	

KINSHIP		SG	PL
1ST	**INC**		-'
	EXC	-'	-'
2ND		-'	-'
3RD		-f	-f
Generic		-f	

Table 3.7: Uab Meto possessor agreement suffixes: inalienable (left) and kinship (right)

(282) a. au **'naka-k**
1SG.NOM head-1SG.INAL
'my head' (Steinhauer 1996a: 226)

b. hoo **’naka-m**
2SG.NOM head-2SG.INAL
‘your (sg.) head’ (Steinhauer 1996a: 226)

c. ina **’naka-n**
3SG.NOM head-3SG.INAL
‘his/her/its head’ (Steinhauer 1996a: 226)

d. *oot*=be **’naak-n**=e
car=DEF head-3SG.INAL=DEF
‘the front of the car’ (LTK; AOZ2019-MON011, line 166)

e. hita **’naka-k**
1PL.INC.NOM head-1PL.INC.INAL
‘our (inc.) head(s)’ (Steinhauer 1996a: 226)

f. hai **’naka-m** / **’naak-m**=ini
1PL.EXC.NOM head-1PL.EXC.INAL / head-1PL.EXC.INAL=PL.DEF
‘our (exc.) head(s)’ (Steinhauer 1996a: 226)

g. hii **’naka-m** / **’naak-m**=ini
2PL.NOM head-2PL.INAL / head-2PL.INAL=PL.DEF
‘your (pl.) head(s)’ (Steinhauer 1996a: 226)

h. sina **’naka-k** / **’naak-k**=ini
3PL head-3PL.INAL / head-3PL.INAL=PL.DEF
‘their head(s)’ (Steinhauer 1996a: 226)

i. uim=n=e **néós-k**=ini
house=PL-DEF front-3PL.INAL=PL.DEF
‘the fronts of the houses’ (LTK; AOZ2019-MON011, line 78)

j. au **’naka-f**
1SG.NOM head-INAL
‘my head (the one that I just cut off)’ (Steinhauer 1996a: 227)

k. le’|a **’naka-f** haa’
REL|EPEN head-INAL four
‘(the) four leaders’ (YAF; AOZ2019-MON004, lines 251-253)

(283) a. au **feot-’**=ini
1SG.NOM sister-1/2.KIN=PL.DEF
‘my sisters’ (KSF; AOZ2019-MON003, line 8)

b. au **feot-’**=e
1SG.NOM sister-1/2.KIN=DEF
‘my sister’ (YEK/NSK; elic. Mar. 23, 2022)

c. hoo **feot-’**=ini
2SG.NOM sister-1/2.KIN=PL.DEF

‘your (sg.) sisters’ (KSF; AOZ2019-MON003, line 23)

d. (iin) **feot-f**=ini
(3SG.NOM) sister-3.KIN=PL.DEF
‘his sisters’ (YAF; AOZ2019-MON004, line 341)

e. hiit **aina-’**
1PL.INC mother-1/2.KIN
‘our (inc.) mother’ (SRB/YFB/YEK; elic. Jun. 24, 2022)

f. hai **aina-’**
1PL.INC mother-1/2.KIN
‘our (exc.) mother’ (SRB/YFB/YEK; elic. Jun. 24, 2022)

g. hii **feot-’**=ini
2PL.NOM sister-1/2.KIN=PL.DEF
‘your (pl.) sisters’ (KSF; AOZ2019-MON003, line 45)

h. siin **feot-f**=ini
3PL sister-3.KIN=PL.DEF
‘their sisters’ (KSF; AOZ2019-MON003, line 28)

i. he t-ma-fuut **feto-f** **nao-f**
IRR 1PL.INC-DEOB-tie sister-KIN brother-KIN
‘so that we have good relationships between brothers and sisters’
(KSF; AOZ2019-MON003, line 36)

(284) a. au **fafi**
1SG.NOM pig
‘my pig’ (Steinhauer 1993: 140)

b. ho **fafi**
2SG.NOM pig
‘your (sg.) pig’ (Steinhauer 1993: 140)

c. iin **fafi**
3SG.NOM pig
‘his/her/its pig’ (Steinhauer 1993: 140)

d. hiit **fafi**
1PL.INC.NOM pig
‘our (inc.) pig’ (Steinhauer 1993: 140)

e. hai **fafi**
1PL.EXC.NOM pig
‘our (exc.) pig’ (Steinhauer 1993: 140)

f. hii **fafi**
2PL.NOM pig
‘your (pl.) pig’ (Steinhauer 1993: 140)

g. siin **fafi**
3PL pig
‘their pig’ (Steinhauer 1993: 140)

h. Ina n-keen **fafi** mese’.
3SG.NOM 3-shoot pig one
‘He shot a pig.’ (YEK; elic. June 27, 2019)

3.4.5 Blocking grammatical conditioning by $v_{[+CAUS]}$ and $v_{[+HAVE]}$ and lexical conditioning via structural non-adjacency

Finally, now that we have covered grammatical conditioning for syllabic agreement prefixes by $v_{[+CAUS]}$ and $v_{[+HAVE]}$ (3.4.2) and the phonological overriding of it (3.4.3), as well as lexical con-

ditioning by particular verbal roots (3.4.4), we can analyze the last aspect of the agreement-prefix allomorphy patterns described in section 3.2, the observation that all verbs with the Voice prefix deobjective *ma-* take asyllabic Agr.

At first glance, because most of the verb stems with *ma-* are trisyllabic or longer (σσσ+), their taking asyllabic Agr could be attributed to this fact, as it is with σσσ+ verbs that lack *ma-* (3.4.3). However, recall that there is one verb root in the language, *haah* 'eat', that is monosyllabic (Edwards 2020: 440, Tan 2023: 439). It takes syllabic Agr prefixes (174) when only the root is overt, either due to a word-minimality requirement for disyllabic feet (Edwards 2020: 108) or just due to lexical conditioning by the root that happens to satisfy a phonological requirement. Attaching deobjective *ma-* to *ha/ah* 'eat' derives a disyllabic stem. Disyllabic stems routinely allow syllabic Agr prefixes. If deobjective *ma-* did not intervene to block *ha/ah* 'eat' from conditioning a syllabic Agr prefix, we might expect a syllabic prefix to appear. The number of syllables in the stem will not prevent it, and the root conditions syllabic Agr when structurally adjacent to it. However, this combination features asyllabic Agr prefixes. *ha/ah* 'eat' is blocked from conditioning syllabic ones (191, repeated as 285). This suggests that *ma-* is truly acting as an intervener. It goes beyond merely adding a syllable.

(285) Context: There are a pig and a dog, and they are both hungry. They see each other. The pig wants to eat the dog, and the dog wants to eat the pig.

@ Hita **t-ma-'-ah**.
1PL.INC.NOM 1PL.INC-DEOB-EPEN-eat
'We eat each other.' (YEK; elic. Jan. 13, 2024)[17]

All of the different types of conditioning that we have seen for syllabic Agr are blocked by the presence of deobjective *ma-*. This includes lexical conditioning by roots like *tuin* 'follow' (286), grammatical conditioning by $v_{[+CAUS]}$ (286b), and grammatical conditioning by $v_{[+HAVE]}$ (286c).

(286) a. Hita **t-ma-tuin**.
1PL.INC.NOM 1PL.INC-DEOB-follow
'We follow each other.'
(YEK; elic. Jan. 29, 2024)

b. Hita **t-ma-toko-b**.
1PL.INC.NOM 1PL.INC-DEOB-sit-CAUS
'We seat each other.'
(YEK/NSK; elic. Dec. 8, 2021)

c. Hita t-**ma-**tiik-∅.
1PL.INC.NOM 1PL.INC-DEOB-heel-$v_{[+HAVE]}$
'We kick each other.'
(YEK/NSK; elic. Feb. 2, 2022)

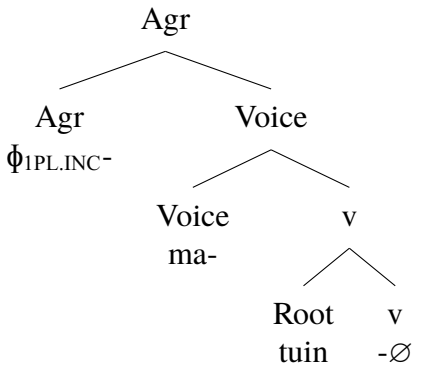
This blocking of the conditioning of syllabic Agr can be attributed to the conditions under which Obliteration occurs. With the partial exception of the null allomorph of $v_{[+CAUS]}$ and $v_{[+BE]}/v_{[+HAVE]}$ only ever manifesting overtly via subtractive morphology (see sections 3.4.2 and 3.4.6), all null morphemes in the verbal complex are Obliterated upon Vocabulary Insertion realizing them as null. Of course, deobjective *ma-* is not null, so it is not Obliterated. Depending on the stem, this prevents

[17]This was reported as the best way to say this and judged as grammatical, but this is not a verb that typically takes deobjective *ma-*.

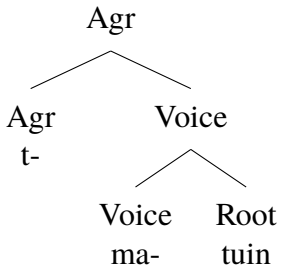
$v_{[+CAUS]}$, $v_{[+HAVE]}$, or the root from being structurally adjacent to Agr, which in turns prevents them from conditioning the syllabic allomorphs of Agr.

I will now illustrate this analysis for each of the verbs in (286). (287) shows the derivation of *tmatuin* '(we) follow each other', which features the root *tuin* 'follow' that lexically conditions syllabic Agr. "Default" v is Obliterated from the structure, but deobjective *ma-* stays, structurally intervening between Agr and the root. Agr and the root are not structurally adjacent, so the root cannot conditioning a syllabic allomorph. Thus, the default 1PL.INC form *t-* is inserted.

(287) a. Before Obliteration

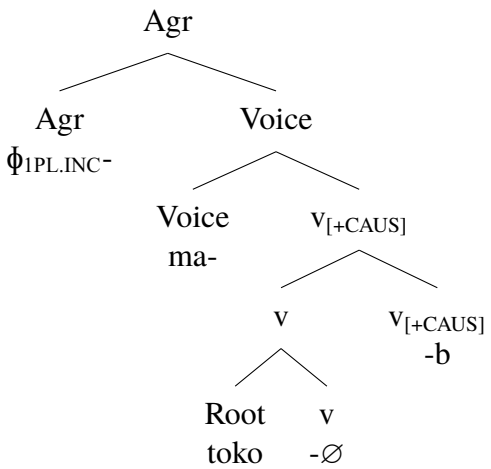


b. After Obliteration

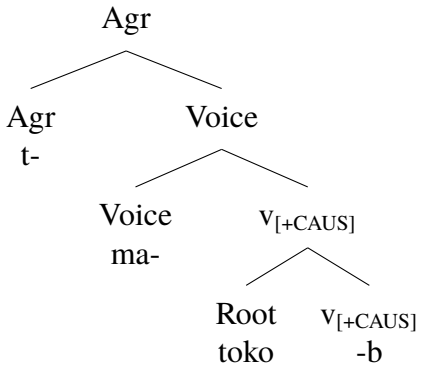


The derivation of *tmatokob* '(we) seat each other' is illustrated in (288). In this case, it is $v_{[+CAUS]}$ that is prevented from conditioning syllabic Agr. After Obliteration, $v_{[+CAUS]}$ is not structurally adjacent to Agr, and the stem headed by it is neither structurally nor linearly adjacent to it. Therefore, the default asyllabic allomorph is inserted.

(288) a. Before Obliteration

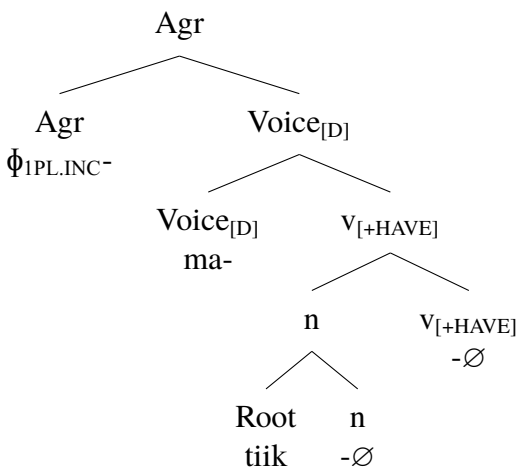


b. After Obliteration

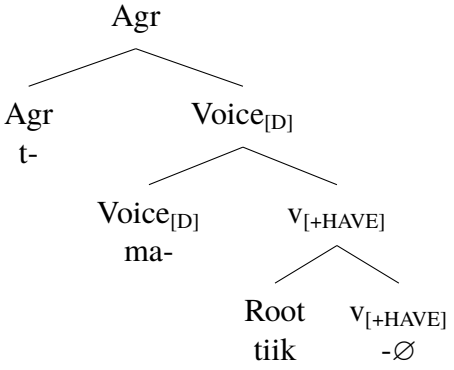


Lastly, the derivation of *tmatiik* '(we) kick each other' is provided in (289). As noted above, $v_{[+HAVE]}$ is not Obliterated even when null and not having any overt effect on the root, so it remains, but deobjective *ma-* also remains. Thus $v_{[+HAVE]}$ is prevented from being structurally adjacent to Agr to condition a syllabic allomorph. This leads to the insertion of the default, asyllabic *t-*.

(289) a. Before Obliteration



b. After Obliteration



These examples make an interesting point about the nature of Vocabulary Insertion. Deobjective *ma-* is not Obliterated because it has phonological content. This phonological content is not supplied until Voice undergoes Vocabulary Insertion. If "default" Voice is inserted instead, it is Obliterated, providing the opportunity for lower heads like $v_{[+CAUS]}$, $v_{[+HAVE]}$, and certain roots to become structurally adjacent to Agr and conditioning syllabic allomorphs. Thus, whether or not these heads have the chance to condition syllabic Agr depends on whether Voice has phonological content, and this is not determined until Voice has undergone Vocabulary insertion. The same point can be made for CC-initial roots that condition syllabic Agr via their phonology. They must have undergone Vocabulary Insertion by the time Agr has the chance to evaluate its environment to select the appropriate allomorph to insert for itself. The availability of this phonological information by the time Agr undergoes Vocabulary Insertion follows from the standard assumption of Distributed Morphology (Halle & Marantz 1993) that Vocabulary Insertion proceeds root-outwards (Bobaljik 2000; Embick 2015). This guarantees that all nodes below Agr, including roots, v, and Voice, have undergone Vocabulary Insertion and possibly been Obliterated in time for Agr to see the resulting configuration.

3.4.6 (Often) null heads, markedness, and Obliteration: $v_{[+CAUS]}$, $v_{[+BE]}$, and $v_{[+HAVE]}$

I have mentioned in several places (sections 2.2.3, 2.3.1, 3.4.2) the idea that $v_{[+CAUS]}$, $v_{[+BE]}$, and $v_{[+HAVE]}$ behave in abnormal ways in terms of their phonology and Obliteration behavior. Four of the five allomorphs of $v_{[+CAUS]}$ are overt, *-b*, *-'*, *-n*, and *-t*, so these allomorphs behave as expected by not Obliterating, but the fact that the null allomorph also escapes Obliteration requires an explanation. $v_{[+BE]}$ and its allomorph $v_{[+HAVE]}$ are atypical in that they do not instantiate any phonology *directly*, but they can trigger the deletion of the final consonant of C-final nouns to which they attach. It is difficult to predict when this process will occur. It is common, but there are also many denominal verbs that preserve the final consonant of the nominal base. $v_{[+BE]}$'s behavior is additionally com-

plicated by the idea that it must undergo Obliteration in the presence of $v_{[+CAUS]}$. This occurs to create structural adjacency between the root and $v_{[+CAUS]}$, which is necessary for the conditioning of distinct allomorphs of $v_{[+CAUS]}$ by the root.

Thus, there are two questions to tackle here. The first is why these v heads, even when null, are not subject to Obliteration, unlike "default" v. The second is why $v_{[+BE]}$ is Obliterated when adjacent to $v_{[+CAUS]}$. I have no definitive answers to offer for these questions, but I hope to articulate the outline of a theory in the hope that a more articulated theory can emerge in future work.

For the first question, I have intentionally chosen to notate $v_{[+CAUS]}$, $v_{[+BE]}$ and $v_{[+HAVE]}$ with + to indicate that in some way, these v heads are "marked". This markedness manifests in several ways. In terms of phonology, all of these heads are present overtly in some way sometimes. $v_{[+CAUS]}$ has overt allomorphs, including the default *-b* that occurs productively on loanwords (68, 180). $v_{[+BE]}$ and $v_{[+HAVE]}$ both often effect a process of subtractive morphology, deleting the final consonant of the noun to which they attach (43, 45, 47), but not always (44). This process must be at least somewhat productive, because it has even been observed in a loan (50). These heads all contrast with "default" v, which is never overt in any way.

In terms of morphosyntax, none of $v_{[+CAUS]}$, $v_{[+BE]}$, and $v_{[+HAVE]}$ is present by default in a clause. They only appear for particular purposes. $v_{[+CAUS]}$ only appears in morphologically causativized verbs (2.3.2), and $v_{[+BE]}$ and $v_{[+HAVE]}$, only appear to turn nouns into verbs (2.2.3). $v_{[+HAVE]}$ is further marked in that it is an allomorph of $v_{[+BE]}$ that emerges only when it is structurally adjacent to a Voice head that introduces an external argument ($Voice_{[D]}$, 35). I have intentionally chosen to notate $Voice_{[D]}$ without a +, because it can refer to several manifestations of Voice and thus is not a label that distinguishes lexical Voice heads from each other; it is a label of convenience. "default" Voice, which is Obliterated, is $Voice_{[D]}$ with transitive and unergative verbs but not with unaccusative ones. *ma-*, which is not Obliterated, is always an instance of $Voice_{[D]}$, becauseit always introduces an external argument (2.4.3).

The takeaway from this is that the use of $v_{[+CAUS]}$, $v_{[+BE]}$, and $v_{[+HAVE]}$ deviates from default Uab Meto clause structure morphosyntactically, and all three of these also differ from "default" v in having some form of overt phonology at least some of the time. I ultimately believe that their having overt phonology some of the time is the more important aspect. n and Appl are also marked elements in the verbal complex in that n is only used in denominal verbs (2.2.3), and Appl is only used to introduce the causee of causativized monotransitives (2.3.2). However, both of these are always null in the verbal complex, and both are always subject to Obliteration.

A relevant statement made in Embick (2010: 59) and Embick (2015: 185) is that a morpheme being realized as null is a necessary but not sufficient condition for them to be Pruned[18]. Adopting that logic to the Obliteration operation proposed for Uab Meto, one could modify this condition slightly to say the following:

[18]I have adopted the logic of Pruning of null morphemes from Embick (2010, 2015) but have applied it to an Obliteration operation that removes morphemes from a syntactic structure after Vocabulary Insertion, rather than just removing them from linearization statements. As discussed later in this section, Embick (2010: 86) and Embick (2015: 104, 227) propose something similar with "radical Pruning".

(290) **Obliteration Eligibility Condition**

A morpheme is Obliterated by default only when all of its allomorphs are null. Otherwise, a structural trigger is needed.

(290) has been worded carefully to exclude cases where Obliteration of a morpheme is triggered by another morpheme in the structure. I wish to exclude such cases because of the apparent need to Obliterate $v_{[+BE]}$ when adjacent to $v_{[+CAUS]}$. This leads to the second question posed above, why $v_{[+BE]}$ is Obliterated in the presence of $v_{[+CAUS]}$. This Obliteration is needed for theoretical reasons in order to account for the fact that denominal verbs can lexically select for $v_{[+CAUS]}$ allomorphs. As can be seen in (291), every allomorph of $v_{[+CAUS]}$ is attested on denominal verbs except *-t*, which I attribute more to a lack of data than anything analytically significant.

(291) a. Lóól=je=t **mu-bua-b**. **Mu-bua-b**=e n-ook ane.
sweet.potato=DEF=SET 2SG-clump-CAUS 2SG-clump-CAUS=3SG.ACC 3-with rice.plant
'Sweet potatoes you gather. You gather them with rice.'
(HNK; AOZ2019-MON006-line 467)

b. A nae=le *lóét*=e ka= n-mui' =fa he **'u-leok-'**=e=ma
FILL DEM.DIST=DEF money=DEF NEG= 3-have =NEG IRR 1SG-good-CAUS=3SG.ACC=and
'There, there isn't the money for me to repair it, and...'
(HNK; AOZ2019-MON006, line 739)

c. Iin **na-le'u-n** *hape*.
3SG.NOM 3-bad-CAUS cell.phone
'He broke the cell phone.' (YEK; elic. Jul. 2, 2022)

d. **na-'ate-∅**
3-servant-CAUS
'put (someone) into servitude' (Tan 2023: 111)

One way to account for these example would be to abandon the idea of structural adjacency being necessary for allomorphic conditioning, analyze $v_{[+BE]}$ as truly null in these cases, and adopt a condition of linear adjacency for allomorphic conditioning. However, if we want to maintain a condition of structural adjacency and avoid committing one way or another on the phonology of $v_{[+BE]}$, then we need some way to remove $v_{[+BE]}$ from the structure. This can be done via an Obliteration rule in the vein of the 1PL Obliteration rule in Zamudio Basque (217) discussed by Arregi & Nevins (2012: 217) or "radical" Pruning of Latin present-tense T discussed in Embick (2010: 86) and Embick (2015: 104, 227). Such rules eliminate morphemes from the structure before Vocabulary Insertion based on grammatical features of the relevant morpheme or surrounding morphemes. Phonology cannot be referenced, because phonological information is not yet available. Of course, I do postulate a general process of Obliteration that references phonological information, but these rules are different in that they act upon specific morphemes. In light of this discussion, an Obliteration rule for $v_{[+BE]}$ is provided in (292).

(292) **Uab Meto $v_{[+BE]}$ Obliteration**

a. Structural description: A verbal complex containing $v_{[+BE]}$ and $v_{[+CAUS]}$ immediately dominating it

b. Structural change: Delete $v_{[+BE]}$ from the structure.

The reader may wonder $v_{[+HAVE]}$ is not mentioned in this rule. After all, denominal verbs like *bua* 'gather' (293a) and *leko* 'good' (293b) combine with $v_{[+HAVE]}$ when they are not causativized. This is because, as discussed in sections 2.3.2 and 3.4.3, $v_{[+HAVE]}$ does not occur when $v_{[+CAUS]}$ is present. $v_{[+CAUS]}$ prevents the structural adjacency between $Voice_{[D]}$ and $v_{[+BE]}/v_{[+HAVE]}$ that is necessary to condition $v_{[+HAVE]}$. In addition, if this rule applies before Vocabulary Insertion, $v_{[+HAVE]}$ will not have been inserted yet anyways, since $v_{[+HAVE]}$ is an allomorph of $v_{[+BE]}$ inserted in the context of $Voice_{[D]}$.

(293) a. Hiit toob **ta-bua** n-aak meu=t tua-f=es,
1PL.INC.NOM people 1PL.INC-clump 3-say tomorrow=SET person-INAL=one
meu=t tua-f=es.
tomorrow=SET person-INAL=one
'We people gather (to make a schedule for each day), tomorrow one person, the next day one person.' (HNK; AOZ2019-MON006, line 535)

b. Took-s=e **na-leok**.
sit-NMLZ=DEF 3-good
'The meeting was good.' (YEK; elic. Oct. 27, 2021)

A final aspect of this analysis on which I will comment is the question of how final-C deletion can occur if $v_{[+BE]}$ is Obliterated before Vocabulary Insertion. This matters for examples like (291a) with *bua* 'gather', from the noun *bua'* 'clod' (Manhitu 2007: 9). It is possible that the final ʔ in *bua'* is actually a root-nominalizing (n) suffix that is replaced with a null n in denominal verbs (Tan 2023: 242), but that explanation does not extend as readily to clear cases of the loss of root consonants like *susal* 'difficult' losing its final /l/ in causativized verbs (68).

A solution to this is to say that $v_{[+CAUS]}$ can also trigger final-C deletion. I am not fully sure that I want to commit to this idea, but there is some evidence for it. The nominal compound *oe metan* 'black water' (294) is the base of denonominal verbs *n'oemetan* 'be dirty' (294b) and *n'oemetab* 'make dirty' (294c). Notice that only the causativized form lacks the final [n] of the root *metan* 'black'. This suggests that $v_{[+CAUS]}$ must be the trigger of final-C deletion in this verb. However, this is the only clear example I have of such as case, so it is difficult to draw firm conclusions.

(294) a. **oe metan**
water black
'black water'
(YEK; elic. Jan. 24, 2024)

b. **n-'oe-metan**
3-water-black
'be dirty'
(Tan 2023: 328)

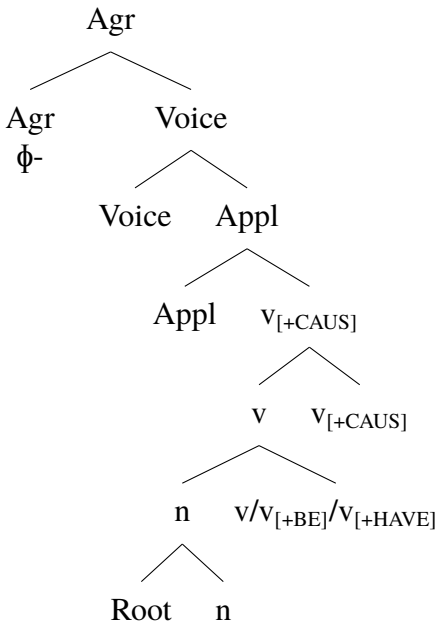
c. **n-'oe-meta-b**
3-water-black-CAUS
'make dirty'
(Tan 2023: 328)

3.4.7 Potential analytical difficulties and the possibility of an analysis without structural adjacency

Various benefits have been presented for the structural adjacency analysis of Uab Meto agreement-prefix allomorphy, in combination with a general process of Obliterating null morphemes after they are realized as null during Vocabulary Insertion. In particular, this allows one to explain why deobjective *ma-* serves as an intervener, preventing the conditioning of syllabic Agr by $v_{[+CAUS]}$, $v_{[+HAVE]}$, and certain lexical roots, while "default " Voice does not (sections 3.4.2, 3.4.4, 3.4.5). It is clear that linear adjacency will not work, because $v_{[+CAUS]}$ is never adjacent to Agr; it is either null or a suffix. $v_{[+HAVE]}$ is a less direct case, but any time it has an overt effect on the phonology via final-C deletion, this happens of the opposite side of the root as Agr. Positing a condition of structural adjacency also allows allomorphy to be restricted in some way. Even if linear adjacency is not the relevant condition, some form of adjacency is.

Of course, this analysis depends on various assumptions about the syntax and phonology relevant heads, the nature of Vocabulary Insertion, and allomorphic competition, some or all of which may prove untenable. Regarding the syntax of the various heads in the Uab Meto verbal complex, this analysis crucially depends on a syntactic structure where Agr is the highest, Voice is below Agr, $v_{[+CAUS]}$ is below Voice, and $v/v_{[+BE]}/v_{[+HAVE]}$ are below $v_{[+CAUS]}$, as illustrated in (242, repeated as 295). This is because Agr needs to wait until everything else has undergone Vocabulary Insertion to evaluate its environment, Voice structurally intervenes to prevent conditioning of syllabic Agr by $v_{[+CAUS]}$ and $v_{[+HAVE]}$, and $v_{[+CAUS]}$ intervenes between $Voice_{[D]}$ and $v_{[+BE]}$ to prevent the insertion of the $v_{[+HAVE]}$ allomorph. A different syntax would force a different account of intervention effects and potentially make some of the observed allomorphy patterns difficult to explain.

(295)



Regarding the phonology of the heads and Vocabulary Insertion, I have had to propose a new form

of Obliteration (290) that operates after Vocabulary Insertion, under essentially the same conditioning of phonological nullness as normal Pruning (Embick 2010, 2015). It may strike some as odd that I am proposing an Obliteration operation that operates on structure during Vocabulary Insertion, when structures are in theory being converted to linearized strings. Vocabulary Insertion must be structure-preserving for this form of Obliteration to work, which goes beyond just preserving grammatical features (Embick 2015: 91). As noted above, Vocabulary Insertion must also proceed from the root outwards (Bobaljik 2000), because Agr depends on the outcome of Vocabulary Insertion and Obliteration in all the morphemes below it. And of course, Obliteration working as intended to create structural adjacency only when desired depends on a particular analysis of the phonology of the relevant heads in the verbal complex. Most of the time, this is straightforward, but the "marked" v heads, namely $v_{[+CAUS]}$, $v_{[+HAVE]}$, and $v_{[+BE]}$, must not be Obliterated, even when they are null. It is true that most allomorphs of $v_{[+CAUS]}$ are overt, including the default *-b*, and $v_{[+HAVE]}$ and $v_{[+BE]}$ often cause deletion of the final consonant of the stems to which they attach, but this does not change the fact that often, the only way to detect these v heads is through changes in agreement-prefix allomorphy, which was of course the original motivation for positing the Obliteration Eligibility Condition in (290). These morphemes need to avoid Obliteration, even when null, because of their consistent conditioning of syllabic Agr despite the variation in their phonology from verb to verb. On the other hand, I have also had to propose that $v_{[+BE]}$ must be Obliterated in the context of $v_{[+CAUS]}$ (292). In this case, the primary motivation is to create structural adjacency between the root and $v_{[+CAUS]}$ so that one can account for the attested variation in $v_{[+CAUS]}$'s lexically conditioned allomorphs in denominal verbs, but any broader motivation beyond this is lacking. Perhaps having two "marked" v heads in the same verb is undesirable, and this is the solution, but this is speculative. Embick (2010: 59) and Embick (2015: 185) say that not all nodes with null exponents are obligatorily Pruned, but exactly when the Pruning of null nodes is obligatory is left unresolved. I have attempted to articulate an answer via (290) and (292), but it would be great to see more data from other languages on this matter.

Lastly, regarding allomorphic conditioning, I have simply had to stipulate that when phonological and grammatical factors compete in their choice of Agr allomorph, the phonological factor wins (section 3.4.3). Phonological and grammatical factors do not exist in any sort of specificity relationship with each other, so there is no obvious way to rule one out based on something like the Subset Principle (Halle & Marantz 1993). This idea has precedents. McCarthy & Prince (1993) propose a universal constraint ranking of phonological constraints over morphological ones (P » M) within Optimality Theory, and Harizanov & Gribanova (2014) propose within Distributed Morphology that phonological context is more specific than grammatical context in evaluating morphemes or allomorphs for insertion. On the other hand, Paster (2009) provides arguments against the P » M idea using evidence from languages like Haitian Creole, which has some phonologically anti-optimizing allomorphs, but the principle clearly works well for Uab Meto. If some implementation of P » M turns out to be valid crosslinguistically, it would be desirable to have a clear motivation for it.

All of these potentially less desirable aspects of the analysis in this section have been posited for the purpose of producing a theory that is both empirically adequate for the Uab Meto data and as restrictive as possible. One could preserve empirical adequacy and avoid some of these postulations if

one were to adopt a less restrictive theory of the types of structural or linear locality that morphemes need to have in order to condition allomorphy on each other. Various examples abound. The theory here broadly aligns with Paster (2009), who argues that linear adjacent morphemes or whole linearly adjacent stems can condition allomorphy, which applies quite readily to the σσσ+ condition and can be extended to stems headed by $v_{[+HAVE]}$ and $v_{[+CAUS]}$. Getting less restrictive, Moskal & Smith (2016) argue that any morphemes within the same cyclic domain with a complex head can condition allomorphy on each other. Even less restrictive, Bobaljik (2012) proposes that root allomorphy must be conditioned by structurally adjacent morphemes, but allomorphy on prefixes and suffixes can be conditioning by structurally and/or linearly non-adjacent morphemes as long as all the relevant morphemes are in the same complex head, which would hold true of the Uab Meto verbal complex. Perhaps the least restrictive is Choi & Harley (2019), who allow for any morpheme within a complex head to condition allomorphy on any other morpheme in that complex head. All of these rely less on the particular syntax of the complex head, and do not rely on linearization- or structure-altering operations like Pruning or Obliteration and the complications that come with them, because the domain for allomorphic interaction is largely independent of linearization and structure apart from cyclic domains and the whole complex head.

There are two downsides to these less restrictive theories. The first is purely philosophical in that more restrictive theories tend to be more readily testable and thus falsifiable, and thus more desirable when possible. The second is that if everything can potentially condition allomorphy, the number of competing factors in any given case grows, and one has to find an alternative way of ruling out competitors. In pursing an alternative analysis of the Uab Meto facts, several of these frameworks can be ruled out. Uab Meto Agr can condition root allomorphy and even undergo Fusion with the root in certain cases, namely two roots meaning 'come' *uu*/*ii* and *Vma*/*VVm* (3.4.4), so a theory like Bobaljik (2012) that requires structural adjacency for root allomorphy without Pruning or Obliteration to make the root and Agr adjacent will not work. Furthermore, the fact that morphemes all the way down to the root can condition allomorphy on Agr suggests that there are no relevant cyclic boundaries in the vein of Moskal & Smith (2016), so an analysis of Uab Meto agreement-prefix allomorphy without Obliteration or Pruning would likely need to adopt the permissiveness of Choi & Harley (2019). This is quite possible, though it will introduce new complications. As an example, (296) presents allomorphy rules for the root *iss*- 'exist'/*eps*- 'exist.NEG'/*kyey*- 'exist.HON' in Korean. These rules reference the structure in (297).

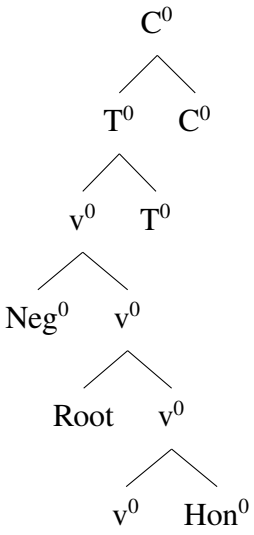
(296) **Korean *iss*-/*eps*-/*kyey*- allomorphy** (Choi & Harley 2019: 1350)

a. $\sqrt{\text{EXIST}} \longleftrightarrow$ kyesi- / [[__] [v^0 Hon^0]$_{v^0}$]

b. $\sqrt{\text{EXIST}} \longleftrightarrow$ eps- / [Neg^0=[[__ v^0]$_{v^0}$]

c. $\sqrt{\text{EXIST}} \longleftrightarrow$ iss- / elsewhere

(297) **Korean verbal structure** (Choi & Harley 2019: 1349)



These rules need to be very specific to produce the right results. *kyesi-* is inserted if the root is adjacent to a constituent that contains the terminal v node and Hon (298a). *eps-* is inserted if a Neg proclitic one level further out is present in the verbal complex (298b). *iss-* is inserted elsewhere (298c). The structural specifications are necessary in order to resolve competition when the verb is both negated and honorific. In this case, honorific suppletion (298d) wins, because it is structurally closer. This leads to the theorem in (299).

(298) a. Halapeci-kkeyse pang-ey **kyesi**-ess-ta.
grandfather-NOM.HON room-in exist.HON-PAST-DECL
'Grandfather was in the room.' (Choi & Harley 2019: 1349)

b. Inho-ka pang-ey **eps**-ess-ta.
Inho-NOM room-in exist.NEG-PAST-DECL
'Inho was not in the room.' (Choi & Harley 2019: 1349)

c. Inho-ka pang-ey **iss**-ess-ta.
Inho-NOM room-in exist-PAST-DECL
'Inho was in the room.' (Choi & Harley 2019: 1349)

d. Halapeci-kkeyse pang-ey an(i)=**kyesi**-ess-ta.
grandfather-NOM.HON room-in NEG=exist.HON-PAST-DECL
'Grandfather was in the room.' (Choi & Harley 2019: 1349)

(299) **Local Allomorph Selection Theorem** (Choi & Harley 2019: 1353)

If two vocabulary items are in competition within an X^0 domain and are equally specified with respect to the Subset Principle, the item conditioned by the more hierarchically local feature blocks the item conditioned by the less local feature.

Theories with fewer locality restrictions replace complexity in creating adjacency at the right times with complexity in specifying environments and resolving competition. In principle, one could adopt this sort of analysis for Uab Meto agreement-prefix allomorphy, and most of it could be handled. The one aspect that I am not sure could be handled in this sort of system is intervention effects. A crucial aspect of the Uab Meto analysis is that deobjective *ma-* structurally intervenes between Agr and lower heads and therefore blocks lower heads from conditioning allomorphy on Agr. One could write various environments that exclude *ma-* like "__ [default.Voice [(Appl) [[Root] ... $v_{[+CAUS]}$]]]", "__ [default.Voice [[Root] ... $v_{[+HAVE]}$]]", or "__ [default.Voice [[$\sqrt{\text{FOLLOW}}$] v]]" but this misses a crucial generalization about the necessary absence of *ma-*, and why it acts differently from default Voice with regards to Agr allomorphy.

3.4.8 Section conclusion

This section has developed an analysis of allomorphy within the Uab Meto verbal complex. The primary purpose has been to account for agreement-prefix allomorphy, but the process of explaining the various aspects of the analysis has additionally led to an account of allomorphy displayed by other heads in the verbal complex, particularly the marked v heads $v_{[+CAUS]}$, $v_{[+BE]}$, and $v_{[+HAVE]}$, as well as the suppletion and Fusion displayed by the two verb roots meaning 'come', *uu*/*ii* and *Vma*/*VVm*. This analysis is built on four main ideas: 1. Vocabulary Insertion occurs from the root outwards, one morpheme at a time, and adds phonological information but does not remove any grammatical or structural information. 2. If a morpheme undergoes Vocabulary Insertion and is realized as null in all cases, it is Obliterated from the structure. 3. Morphemes can have their allomorphy conditioned by whatever morphemes are structurally adjacent to them after the potential Obliteration of lower morphemes. This adjacency is evaluated in terms of the whole constituent a morpheme is adjacent to. The highest head adjacent to the relevant morpheme can be linearly non-adjacent; what matters is that the complex head of which it is the highest element is structurally adjacent. 4. If, even after Obliteration, a phonological conditioning factor and a grammatical conditioning factor are in competition with each other for allomorph selection, the phonological factor wins.

This section ended with a brief discussion of what an analysis that abandons the necessity of linear and/or structural adjacency might look like. In essence, such an analysis would avoid the complexities associated with Obliteration and how different morphemes interact with it, but environments would need to be more specific to make sure that the preferred allomorph wins, because more conditioning factors can be active at once. Such an analysis, sufficiently well thought-out, should be able to account for all the patterns described in section 3.2, though the conditions for insertion are likely to be very complicated. Section 3.5 will present other analyses of Uab Meto agreement-prefix allomorphy that have been proposed in one way or another. These analyses are analytically simpler but face difficulties in accounting for some of the data.

3.5 Alternative analyses of Uab Meto agreement-prefix allomorphy: Pros and cons

This section will briefly discuss some alternative analyses of Uab Meto agreement-prefix allomorphy. All three of these analyses are conceptually simpler than the one proposed in Section 3.4, but they all do not account for some portion of the data.

Section 3.5.1 will describe a hypothesis proposed to me by Kate Mooney (p.c.) at the 31st Annual Meeting of the Austronesian Formal Linguistics Association (AFLA 31) in June 2024. This hypothesis is that grammatical conditioning, especially that by $v_{[+CAUS]}$ actually causes the addition of an extra prefix consonant, likely [ʔ], creating CC clusters, allowing for a mostly phonological explanation of the allomorphy. I will provide evidence that there is no extra consonant in most cases, apart from a few lexical exceptions.

Section 3.5.2 will discuss the most developed alternative analysis, that of Tan (2023). Of course, I have adopted some aspects of her analysis, particularly her analysis of denominal verbs and the associated v heads $v_{[+BE]}$ and $v_{[+HAVE]}$. I diverge from her analysis primarily in not positing a ghost consonant Voice prefix ($\varnothing_C$-) that creates covert CC-clusters, and thus also allowing for a mostly phonological explanation. I will discuss some data points that are difficult to explain under this analysis, namely trisyllabic or longer causatives, CC-initial roots, and V-initial roots.

Section 3.5.3 will address a question posed to me by Vera Gribanova and Boris Harizanov during my presentation of Lemon (2024b) at Stanford Syntax and Morphology Circle (SMircle) in January 2024, whether one could attribute agreement-prefix allomorphy to Spell-Out domains. In particular, perhaps $v_{[+CAUS]}$ and $v_{[+HAVE]}$ trigger Spell-Out of the stems to which they attach, and there is some sort of domain minimality requirement that would lead to the insertion of syllabic Agr. The nature of Spell-Out domains in Uab Meto is highly uncertain, and thus I have avoided referencing them in my own analysis, but I will show that the limited evidence that I have points to Spell-Out domains not being relevant to Agr allomorphy.

These three alternative analyses are simpler than the one developed in section 3.4 but all have some empirical shortcomings. With an eye towards a future analysis that is simpler than the one developed in this chapter and equally empirically adequate, section 3.5.4 highlights the crucial patterns in the data that any analysis of this allomorphy must capture.

3.5.1 CV-initial verbs that take CV-Agr are actually CCV-initial

Recall from (243) and section 3.4.1 that one of the phonological conditioning factors for syllabic agreement-prefix allomorphs is CC-initial stems. There are no CC-initial Voice prefixes, so this property mostly applies to CC-initial roots. However, there are some typically CV-initial verbs that feature an extra [ʔ] in their causativized forms before the syllabic agreement prefix. One such verb is *sosa*/*soos*, which, when causativized, means 'sell'. Some examples are provided in (300). Causativized forms of the verb *sae* 'rise' have also been bolded in (300b-c), because these feature the same agreement prefixes and root-initial [s], but lack the [ʔ]. For comparison, uncausativized

examples of *sosa*/*soos* can be found in (181b) and (231b), and uncausativized examples of *sae* can be found in (59b) and (134a).

(300) a. *Bisa* m-hao fafi oka=te na-'nae=t na' **mu-'-soos-'=e** mu-péén
can 2SG-feed pig then=SET 3-big=SET so 2SG-???-buy-CAUS=3SG.ACC 2SG-get
lóét.
money
'You can feed a pig, then it grows up, so you can sell it and get money.' (HNK; AOZ2019-MON006, line 158)

b. ... on le' utan huma∼huma **ta-sae-b=e**
... IRR.LOC REL vegetable face∼face 1PL.INC-rise-CAUS=3SG.ACC
t-éék=je t-nao **ta-'-sosa-'**.
1PL.INC-bring=3SG.ACC 1PL.INC-go 1PL.INC-???-buy-CAUS
'...like various kinds of vegetables we load them up and take them to sell.'
(HNK; AOZ2019-MON006, lines 65-66)

c. Hoo **mu-sae-b** m-óé ao-n=e=m ...
2SG.NOM 2SG-rise-CAUS 2SG-to body-3SG.INAL=DEF=and ...
'You lift to its body and...' (HNK; AOZ2019-MON006, line 333)

This extra pre-root [ʔ] also shows up in nominalizations of *'sosa'* 'sell' (301a), which is not seen in uncausativized nomonalizations (301b), nor in most nominalizations of verbs, causativized or not. Examples with *tupa*/*tuup* 'sleep' are provided in (301c-d) for comparison. Corresponding verbs can be found in (139a-b).

(301) a. **a-sosa-t**
SUB.NMLZ-buy-NMLZ
'buyer' (Steinhauer 1996a: 231)

b. **a-'-sosa-'-∅**
SUB.NMLZ-???-buy-CAUS-NMLZ
'seller' (YEK; AOZ2019-WORDLIST001, line 358)

c. **a-tupa-s**
SUB.NMLZ-sleep-NMLZ
'someone who sleeps' (Steinhauer 1993: 154)

d. **a-tupa-b-∅**
SUB.NMLZ-sleep-CAUS-NMLZ
'someone who puts to sleep' (Steinhauer 1996a: 228)

The examples in (300) and (301) suggest that some verbs, like *sosa*/*soos* 'buy', have special root forms when causativized, or that there is an extra prefix (see below). In theory, it is also possible that other causativized verbs have this extra [ʔ] and I have simply failed to hear it. To test this, I looked at some spectrograms. I compared the causativized *mu'soos'e* in (300a) and *ta'sosa'* in (300b) with the phonologically similar verbs *tasaebe* '(we) lift/raise it' (also in 300b) and *musaeb* '(you) lift/raise' (300c). These have the same syllabic 2SG and 1PL.INC agreement prefixes [mu-] and [ta-] and the same root-initial [s], and they are all causativized. They also all come from the same speaker, HNK. These are as close to minimal pairs between verbs as we are likely to get.

Notably, based on a consultation with phoneticians Julianne Kapner and Amber Galvano (p.c.), one can see the extra [ʔ] in *mu'soos'e* and *ta'sosa'*, but not in *musaeb* or *tasaebe*. To illustrate this,

partial spectrograms for *mu'soos'e* and *ta'sosa'* are provided in figures 3.1 and 3.2. The roughly 0.25-second-long areas between the dotted vertical red lines correspond to the segments [muʔs] and [taʔs] respectively. The [ʔ] can be seen as a "burst" of two thin dark vertical lines and a paler area in the middle, indicated with an arrow and red line showing the applicable horizontal area. This between the area of dark formants of the preceding vowel ([u] or [a]) and the dark high frequency area of the following [s]. This is especially evident in figure 3.1.

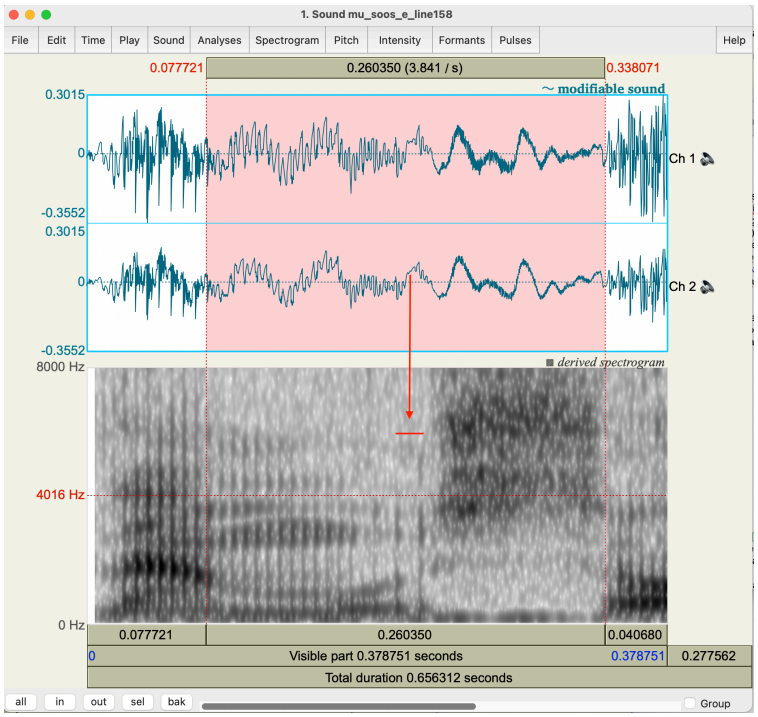


Figure 3.1: Partial spectrogram of *mu'soos'e*

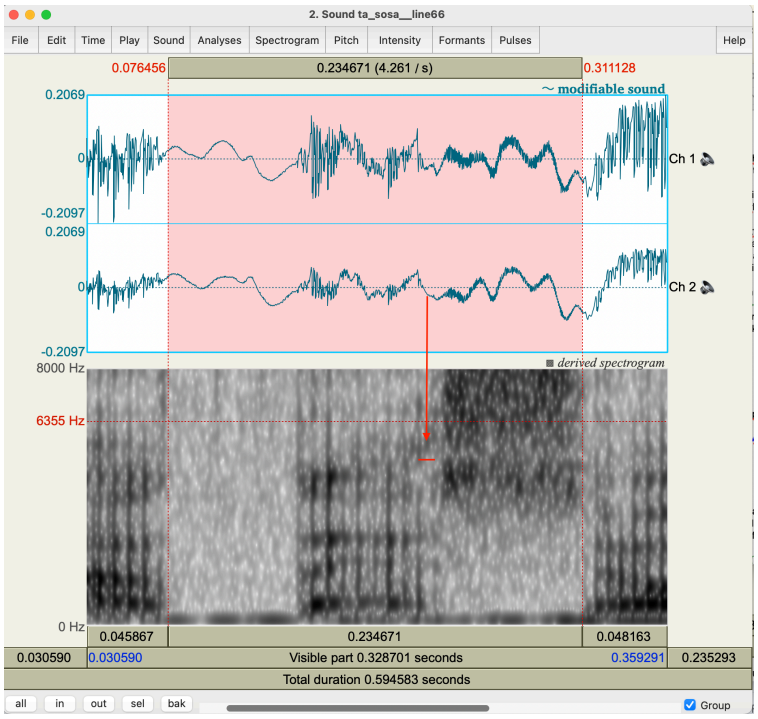


Figure 3.2: Partial spectrogram of *ta'sosa'*

By contrast, no burst is seen *musaeb* (figure 3.3) and *tasaebe* (figure 3.4). The roughly 0.2-second areas between the dotted red vertical lines represent the segments [mus] and [tas]. The arrows indicate where the burst would be if a [ʔ] were present, but here the transition between the [u]/[a] and [s] is more abrupt, without the intervening burst.

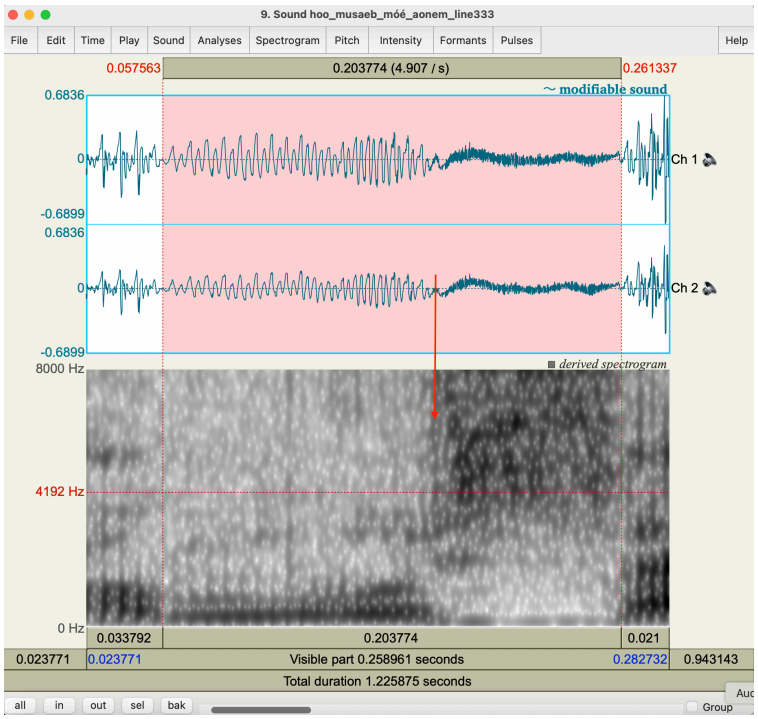


Figure 3.3: Partial spectrogram of *musaeb*

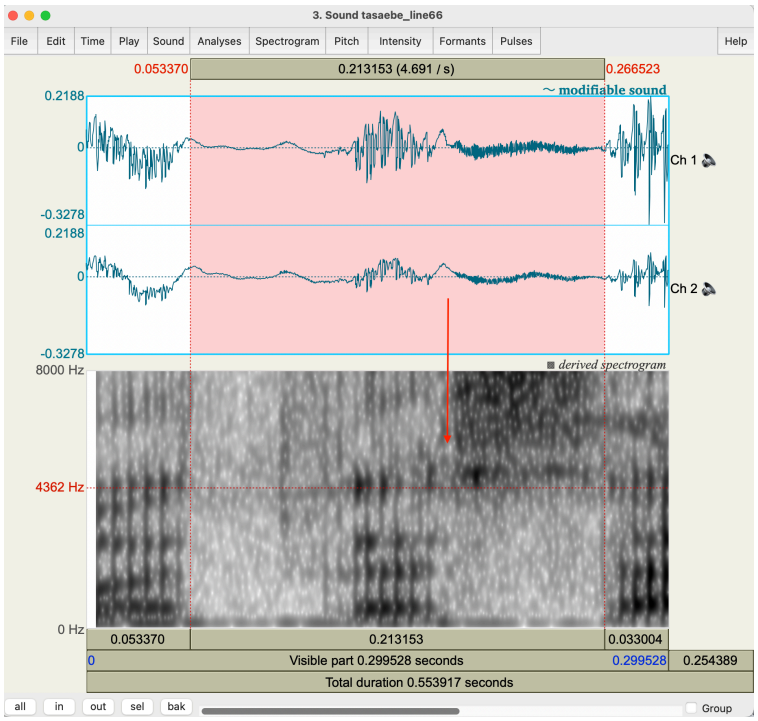


Figure 3.4: Partial spectrogram of *tasaebe*

The uncausativized examples *sae* 'rise' (59b, 134a) show that this verb takes asyllabic agreement prefixes in its base form, so this is not the case of lexical selection for syllabic agreement. *sae* takes syllabic agreement in (300b) and (300c) because it is causativized, not because it lexically selects for syllabic agreement, and not because the stem is CC-initial. Therefore, neither lexical idiosyncrasy nor phonology can explain this allomorph choice.

I will mention here that Edwards (2017: 422-423) briefly discusses a "transitional" prefix [ʔ-] that occurs in some verbs (302) to indicate that a state or activity encoded by a verb begins to hold. In addition he notes that "in some cases, the use of this transitional ʔ- prefix overlaps with that of an inceptive or causative" (302a), but this is not always true (302b-c, partially 302d). Some of these verbs do not have a causative meaning, and Edwards (2017) also provides examples of causative verbs without this prefix (303).

(302) a. n-mate vs. na-**'**-mate
3-die 3-TR-die
'die' vs. 'kill'
(Edwards 2017: 423)

b. n-hera vs. na-**'**-hera
3-pull 3-TR-pull
'pull/drag' vs. 'tighten/strengthen'
(Edwards 2017: 423)

c. na-be'i vs. na-**'**-be'i
3-strong 3-TR-strong
'be capable/strong' vs. 'make or become capable/strong' (Edwards 2017: 423)

d. tebe vs. na-**'**-tebe
3-true 3-TR-true
'true/earnest' vs. 'true/earnest'
(Edwards 2017: 423)

(303) a. n-tama vs. na-tama
3-enter 3-enter
'enters, goes in' vs. 'makes enter, puts inside' (Edwards 2017: 428)

b. n-sae vs. na-sae-b
3-rise 3-rise-CAUS
'goes up/ascends' vs. 'puts up/gets up/lifts up' (Edwards 2017: 428)

c. n-'ai vs. na-'ai-b
3-push.down 3-push.down-CAUS
'pushes down' vs. 'pushes down'
(Edwards 2017: 428)

d. n-fena vs. na-fena-'
3-rise 3-rise-CAUS
'rises/gets up' vs. 'raises/gets (something) up' (Edwards 2017: 428)

I suspect that causativized *'sosa'* 'sell' is an example of a verb that takes this transitional prefix, but I have not found enough examples in the Miomafo variety of Uab Meto to be sure. Edwards (2017)'s data comes from the Kotos Amarasi variety. I have also found one verb *na'a/naa'* 'hold' that seems to vary in whether it takes this [ʔ] prefix when causativized (304), suggesting that this prefix may exist in the Miomafo variety too. I leave this question to future work. What is clear for our purposes here is that there in no consistent [ʔ] or any other consonant between the syllabic prefix and the causativized verb, so the consistent use of syllabic Agr allomorphs cannot be reduced to phonological conditioning from a CC-initial stem.

(304) a. Au **'u-na'a-t** Tyler fatu.
1SG.NOM 1SG-hold-CAUS Tyler stone
'I hand Tyler a stone.'
(YFB/YEK/NSK; elic. Jun. 27, 2022)

b. Hoo **mu-'-na'a-t** kau aas=be.
2SG.NOM 2SG-TR-hold-CAUS me dog=DEF
'You hand me the dog.'
(YEK/NSK; elic. Mar. 16, 2022)

3.5.2 Tan (2023): $v_{[+CAUS]}$ and $v_{[+HAVE]}$ combine with a "ghost consonant" Voice head

Now that I have addressed the question of a larger role for overt phonology in conditioning syllabic agreement prefixes, I now move onto the question of a larger role for *covert* phonology. Tan (2023) analyses agreement-prefix allomorphy in the Kotos and Ro'is Amarasi varieties of Uab Meto as part of her dissertation. She and Edwards (2017, 2020, 2021) agree with the analysis in section 3.4 in treating most causativized verbs as not having CC-initial stems overtly. However, she differs in positing a Voice head, $\text{Voice}_{[+D]}$ that is instantiated as a silent "ghost consonant" prefix, $\varnothing_C$-. $v_{[+CAUS]}$ and $v_{[+HAVE]}$ mandatorily combine with $\text{Voice}_{[+D]}$, seemingly for semantic reasons (Tan

2023: 137, 184). This covertly turns CV-initial verbs into CC-initial verbs (305), leading to the insertion of syllabic agreement prefixes according to the much simpler rules in (306) (cf. 243).

(305) a. Hoo **<u>m-</u>*rees*** *surat*.
2SG.NOM 2SG-read letter
'You read a letter/book.' (Tan 2023: 139)

b. Hoo **<u>mu-</u>∅$_{C}$-*resa*-b** siin *surat*.
2SG.NOM 2SG-VOICE$_{[+D]}$-read-CAUS 3PL letter
'You make them read a letter/book.' (Tan 2023: 139)

c. Hoo **<u>m-</u>'aet**.
2SG.NOM 2SG-servant
'You are a servant.' (Tan 2023: 184)

d. Hoo **<u>mu-</u>∅$_{C}$-foo-∅.**
2SG.NOM 2SG-VOICE$_{[+D]}$-smell-v$_{[+HAVE]}$
'You stink.' (lit. 'have a smell') (Tan 2023: 184)

(306) a. Agr ⟷ CV- / _CC (Tan 2023: 126)
b. Agr ⟷ C- / elsewhere

Having to posit a silent consonant that never has any overt expression is unappealing, but it comes with the benefit of a much simpler analysis. Voice is both linearly and structurally adjacent to Agr, and even the most restrictive theories like Embick (2010) allow allomorphy in such a configuration. No Pruning or Obliteration is needed, and the syntax below Voice is not particularly important. In addition, this allomorphy is exclusively phonologically conditioned. The absence of a grammatical component avoids a conflict with theories like Bobaljik (2000) that postulate that Vocabulary Insertion overwrites grammatical information. The observation about the link between denominal verbs, v$_{[+HAVE]}$, and syllabic Agr is also a great conceptual advancement, as it accounts for a large portion of the verbs that take syllabic Agr in Uab Meto despite not obviously being phonologically conditioned to do so.

This analysis works well for overtly CV-initial verb stems, but it faces some difficulties in accounting for less typical stem types, namely trisyllabic or longer causatives, CC-initial roots, and V-initial roots. Both Tan (2023) and I postulate that CC-initial stems condition syllabic Agr due to a general prohibition of CCC sequences in Uab Meto (*CCC). I know of no word-internal CCC sequences in the language. In addition, though there are words that begin with CC-clusters, metathesis is blocked before them in order to avoid CCC across word boundaries. One can see this pattern in (192, repeated as 307). The bolded verbs metathesize to their VC-final forms when followed by a (C)V-initial word, but they stay in their CV-final form when followed by a CC-initial word.

(307) a. Au **’-iit** maan=bes.
1SG.NOM 1SG-see chicken=one
‘I see a chicken.’
(YEK; elic. Feb. 2, 2022)

b. Au **’-faen** on ume.
1SG.NOM 1SG-return IRR.LOC house
‘I return home.’
(YEK; AOZ2019-MON001, line 7)

c. Iin **na-ah** sisi.
3SG.NOMl 3-eat meat
‘He/she eats meat.’
(YEK; elic. Nov. 3, 2021)

d. Au neon unu’ le’ au **’-ita**
1SG.NOM day first REL 1SG.NOM 1SG-see
bnao kolo.
boat bird
‘(That was) my first time that I saw an airplane.’ (YAF; AOZ2019-MON004, line 61)

e. Au **’-fani** ’-tee ume.
1SG.NOM 1SG-return 1SG-arrive house
‘I arrive home.’
(YEK; AOZ2019-MON001, line 7)

f. Iin fe’ **na-ha** ’maka’.
3SG.NOM still 3-eat rice
‘He/she is still eating rice.’
(YEK; elic. Aug. 25, 2021)

$\text{Voice}_{[+D]}$ $\varnothing_C$- crucially counts as a genuine consonant in triggering the avoidance of CCC sequences in the data discussed so far in that it adds a consonant to create a CC-cluster that conditions a CV-Agr prefix. Given this, there is an issue with causatives that are trisyllabic or longer (σσσ+). Recall from (186) in section 3.2.4 that σσσ+ stems take asyllabic Agr prefixes even when causativized. All of these verbs are overtly causativized with $v_{[+CAUS]}$ *-b*, and therefore $\varnothing_C$- should be used here. However, this would create CCC sequences between asyllabic Agr, $\varnothing_C$-, and the initial consonant of the root, as represented in (308).

(308) a. Au **’-$\varnothing_C$-kumani-b** koo.
1SG.NOM 1SG-$\text{VOICE}_{[+D]}$-smile-CAUS 2SG.ACC
‘I make you smile.’ (YEK; elic. Jan. 24, 2024)

b. Hoo **m-$\varnothing_C$-haumaka-b** kau.
2SG.NOM 2SG-$\text{VOICE}_{[+D]}$-near-CAUS 1SG.ACC
‘You make me near (you).’ (YEK; elic. Jan. 13, 2024)

c. **n-$\varnothing_C$-’oe-meta-b**
3-$\text{VOICE}_{[+D]}$-water-black-CAUS
‘make dirty’ (Tan 2023: 328)

Thus, Tan (2023)’s analysis predicts the occurrence of otherwise unattested CCC sequences. Perhaps one could avoid this issue by stating that $\text{Voice}_{[+D]}$ is fully null in certain environments. Tan (2023: 117) offers such an explanation for when $\text{Voice}_{[+D]}$ attaches to CC-initial roots (309), as another case of inward-sensitive phonologically conditioned allomorphy (310), which is accepted by essentially all theories of allomorphy that assume root-outwards Vocabulary Insertion. Allomorphy between a ghost consonant and something completely null is atypical, but it can be done, and it accounts for the cases in (309). However, to make this work for the cases in (308), one would need to assume an environment like C_C, where the preceding C, corresponding to Agr, is not inserted

until *after* Voice$_{[+D]}$, because the allomorphy of Agr itself depends on the insertion of Voice$_{[+D]}$. It is possible that there is a solution to this dilemma, but at the time of this writing I am not aware of one.

(309) a. **na-∅-snasa-b**
3-VOICE$_{[+D]}$-stop-CAUS
'makes (someone) stop' (Tan 2023: 322)

b. Au **'u-∅-mnau-b** koo he m-soos manu.
1SG.NOM 1SG-VOICE$_{[+D]}$-remember-CAUS 2SG.ACC IRR 2SG-buy chicken
'I remind you to buy a chicken.' (YEK; elic. Feb. 2, 2022)

(310) a. Voice$_{[+D]}$ ⟷ ∅- / _CC (based on discussion in Tan 2023: 117)
b. Voice$_{[+D]}$ ⟷ ∅$_C$- / elsewhere

The last difficulty associated with this analysis comes from V-initial verb roots. Recall from (185) in section 3.2.4 that V-initial verb roots also take syllabic prefixes when causativized, though to prevent hiatus (*V-V) and avoid having an onsetless foot (Edwards 2020: 118), a [ʔ] is epenthesized between Agr and the root. In this case, Tan (2023: 191-192) proposes that v$_{[+CAUS]}$ (Appl in her terminology) demarcates a cyclic domain and correspondingly, a prosodic word (PrWd). The verbal complex up to that point is sent to Spell-Out. This causes the addition of [ʔ] to the base if it is V-initial and thus creates a CV-initial stem. After this, Voice$_{[+D]}$ ∅$_C$- is added, creating a CC-initial stem. Thus, when it is time for Vocabulary Insertion on Agr, Agr sees a CC-initial stem, and so a syllabic Agr allomorph is inserted. Some examples are provided in (311) to illustrate this analysis.

(311) a. Hiit **[$_{PrWd}$ ta-∅$_C$-[$_{PrWd}$ '-aena-']]** siin.
1PL.INC.NOM [$_{PrWd}$ 1PL.INC-VOICE$_{[+D]}$-[$_{PrWd}$ EPEN-run-CAUS]] 3PL
'We run them.' (YEK; elic. Jan. 23, 2024)

b. Au **[$_{PrWd}$ 'u-∅$_C$-[$_{PrWd}$ '-inu-t]]** koo oel.
1SG.NOM [$_{PrWd}$ 1SG-VOICE$_{[+D]}$-[$_{PrWd}$ EPEN-drink-CAUS]] 2SG.ACC water
'I give you water.' (YEK; elic. Jul. 14, 2021)

c. Au **[$_{PrWd}$ 'u-∅$_C$-[$_{PrWd}$ '-ami-b]]** koo faaf=jes.
1SG.NOM [$_{PrWd}$ 1SG-VOICE$_{[+D]}$-[$_{PrWd}$ EPEN-look.for-CAUS]] 2SG.ACC pig=one
'I tell you to look for a pig.' (YEK; elic. Feb. 2, 2024)

This analysis accounts well for these causativized V-initial roots. Tying this triggering of Spell-Out to causativization also accounts for why there is no [ʔ] epenthesis in the uncausativized forms of these verbs (312). In these cases both *V-V and the need for an onset to the foot are satisfied by asyllabic Agr. "default" Voice, rather than Voice$_{[+D]}$, is present in these structures.

(312) a. Siin **[$_{PrWd}$ n-aena]**=n.
3PL [$_{PrWd}$ 3-run=PL]
'They run.'
(YEK/NSK; elic. Nov. 17, 2021)

b. Au **[$_{PrWd}$ '-iun]** oel.
1SG.NOM [$_{PrWd}$ 1SG-drink] water
'I drink water.' (YEK; elic. Jan. 29, 2024)

c. Hoo **[$_{PrWd}$ m-aem]** kau.
2SG.NOM [$_{PrWd}$ 2SG-look.for] 1SG.ACC
'You are looking for me.'
(YEK; elic. Jan. 23, 2024)

However, [ʔ] epenthesis is also observed in non-causativized (313a-b) and causativized (313c-d) verbs with deobjective *ma-*, between *ma-* and the verb root. Thus, this epenthesis can occur independently of causativization and Voice$_{[+D]}$. To account for these cases while also maintaining the analysis of Voice$_{[+D]}$ $\varnothing_C$- combining with a [ʔ] provided by Spell-Out in the cases in (311), one would need to say that deobjective *ma-* also triggers Spell-Out, or alternatively that any remaining V-V sequences are repaired in the phonology as a last resort. I will discuss a version of this in section 3.5.3. Here I do not believe that Tan (2023)'s analysis does not work, just that more needs to be said.

(313) a. Au **'-ma-'-aem** '-ook koo.
1SG.NOM 1SG-DEOB-EPEN-look.for 1SG-with 2SG.ACC
'I look with you.' (YEK; elic. Jan. 23, 2024)

b. Hita **t-ma-'-iit**.
1PL.INC.NOM 1PL.INC-DEOB-EPEN-see
'We see each other.' (YEK/NSK; elic. Oct. 13, 2021)

c. Au **'-ma-'-inu-t** *kofe* '-ook koo.
1SG.NOM 1SG-DEOB-EPEN-drink-CAUS coffee 1SG-with 2SG.ACC
'I give coffee to drink with you.' (YEK; elic. Jan. 24, 2024)

d. Hita **t-ma-'-ami-b** manu.
1PL.INC.NOM 1PL.INC-DEOB-EPEN-look.for-CAUS chicken
'We make each other look for a chicken.' (YEK; elic. Jan. 23, 2024)

Though I disagree with certain aspects of Tan (2023)'s analysis of Uab Meto agreement-prefix allomorphy today, I believe that it derives from the correct explanation of the historical origin of this allomorphy pattern. As Tan (2023) notes, most Malayo-Polynesian languages have a causative prefix that is a reflex of Proto-Malayo-Polynesian *pa-*, which can still be seen in some Uab Meto verbs as *ha-* (314). In brief, there appears to have been a process of antepenultimate vowel syncope in an earlier stage of Uab Meto that took the originally uniformly syllabic agreement prefix or causative *ha-*, depending on the word, and deleted the vowel of Agr or the causative prefix (Tan 2023: 143) unless this would create a CCC sequence (314b). For uncausativized verbs, the derivation is simple. The antepenultimate vowel in the Agr prefix was deleted, deriving the attested verb forms (315a-b). The derivation for causative verbs (315c) and denominal verbs with v$_{[+HAVE]}$ (315d) is a bit more complicated. The causative prefix went through several changes, first changing its consonant from

*p to *h, then undergoing deletion of its vowel, and then finally becoming a ghosts consonant. This ghost consonant was then reanalyzed as a Voice prefix rather than a $v_{[+CAUS]}$ head (Tan 2023: 163-164). In my view, the ghost consonant then deleted completely. Finally, new $v_{[+CAUS]}$ suffixes like *-b* were innovated for many verbs (Tan 2023: 334).

(314) a. ma'fena'
heavy
'heavy' (Tan 2023: 155)

b. n-**ha**'fena-b
3-heavy-CAUS
'weighs down' (Tan 2023: 155)

(315) a. *__na-__inu > __n-__inu
*3-drink > 3-drink
'drinks' (Tan 2023: 143)

b. *__na-__tama > __n-__tama
*3-enter > 3-enter
'enters' (Tan 2023: 153)

c. *__na-__**pa-**tama > *__na-__**ha-**tama > *__na-__**h-**tama > __na-__$\varnothing_{\mathbf{C}}$**-**tama
*3-CAUS-enter > *3-CAUS-enter > *3-CAUS-enter > 3-$\text{VOICE}_{[+D]}$-enter
'makes (something) enter' (Tan 2023: 153)

d. *__na-__**pa-**bahu > *__na-__**ha-**foo > *__na-__**h-**foo > __na-__$\varnothing_{\mathbf{C}}$**-**foo
*3-CAUS-smell > *3-CAUS-smell > *3-CAUS-smell > 3-$\text{VOICE}_{[+D]}$-smell
'stinks' (Tan 2023: 151)

I am unable to cover all the details of Tan (2023)'s analysis here, but I have mentioned it to show that there is a clear historical development of the current complexity in Uab Meto agreement-prefix allomorphy. I take the analysis one step further than Tan (2023) by positing that the ghost consonant is no longer present, but a ghost consonant prefix at some stage in the language is plausible considering this history.

3.5.3 $v_{[+CAUS]}$ and $v_{[+HAVE]}$ trigger Spell-Out, and this conditions CV-prefixes

For the last potential alternative analysis, I will address a question posed to me by Vera Gribanova and Boris Harizanov during my presentation of Lemon (2024b) at Stanford Syntax and Morphology Circle (SMircle) in January 2024. They asked whether one could attribute agreement-prefix allomorphy to Spell-Out domains. In particular, perhaps $v_{[+CAUS]}$ and $v_{[+HAVE]}$ trigger Spell-Out of the stems to which they attach, and there is some sort of domain minimality requirement that would lead to the insertion of syllabic Agr. The nature of Spell-Out domains in Uab Meto is highly uncertain, and anything I can say about them at this point is somewhat speculative. Thus I have avoided referencing them in my own analysis, but I will show that the evidence that I have points to Spell-Out domains not being relevant to Agr allomorphy.

There seem to be at least two Spell-Out domains in Uab Meto, the foot containing the root and complete prosodic words. In many cases these domains are identical, for example in root-derived nouns (316), non-causativized V-initial verb roots (317), and nominalized V-initial verb roots (318). One can infer where Spell-Out occurs from patterns of [ʔ] and [mn] epenthesis for

underlyingly V-initial roots and affixes. The root itself or prefix may supply an initial consonant, or at Spell-Out there will be last-resort [ʔ] or [mn] epenthesis. This epenthesis occurs due to Uab Meto's requirement for an onset at the beginning of each foot , as well as its requirement for an onset at the beginning of each prosodic word (Edwards 2020: 118). [mn] epenthesis occurs on nominalizations built from verbal complexes, and based on (225) and the analysis in section 3.3.2, the [m] actually surfaces outside the foot even though the [n] surfaces inside it, though I believe that both are inserted due to the same Spell-Out trigger. [ʔ] epenthesis occurs in all other cases. To distinguish between epenthesis resulting from different triggers the EPEN glosses are marked with indexing numbers, Only V-initial roots are provided in the examples below, because C-and CV-initial roots do not experience experience [ʔ] or [mn] epenthesis, so they are uninformative for this purpose.

(316) a. [$_{PrWd}$ [$_{Ft}$ **'-ume**]]
[$_{PrWd}$ [$_{Ft}$ EPEN$_1$-house]]
'house' (Steinhauer 1996b: 483)

b. [$_{PrWd}$ [$_{Ft}$ **'-osa-f**]]
[$_{PrWd}$ [$_{Ft}$ EPEN$_1$-price-INAL]]
'price' (Edwards 2020: 444)

(317) a. [$_{PrWd}$ [$_{Ft}$ **'-aen**]]
[$_{PrWd}$ [$_{Ft}$ 1SG-run]]
'(I) run.' (YEK; elic. Feb. 2, 2024)

b. [$_{PrWd}$ [$_{Ft}$ **n-iun**]]
[$_{PrWd}$ [$_{Ft}$ 3-drink]]
'(he/she/it) drinks'
(NSK; elic. Apr. 13, 2022)

c. [$_{PrWd}$ [$_{Ft}$ **m-aem**]]
[$_{PrWd}$ [$_{Ft}$ 2SG-look.for]]
'(you) look for' (YEK; elic. Jan. 23, 2024)

d. [$_{PrWd}$ [$_{Ft}$ **n-éék**]]
[$_{PrWd}$ [$_{Ft}$ 3-bring]]
'(he/she/it) brings'
(YEK/NSK; elic. Mar. 9, 2022)

(318) a. [$_{PrWd}$ **m** [$_{Ft}$ **n-ami-t**]]
[$_{PrWd}$ EPEN$_1$ [$_{Ft}$ EPEN$_1$-look.for-NMLZ]]
'(a) search' (YEK; elic. Jan. 24, 2024)

b. [$_{PrWd}$ **m** [$_{Ft}$ **n-inu-t**]]
[$_{PrWd}$ EPEN$_1$ [$_{Ft}$ EPEN$_1$-look.for-NMLZ]]
'(a) drink' (YEK; elic. Jan. 24, 2024)

c. [$_{PrWd}$ **m** [$_{Ft}$ **n-aena-t**]]
[$_{PrWd}$ EPEN$_1$ [$_{Ft}$ EPEN$_1$-look.for-NMLZ]]
'(a) running race'
(SRB/YFB/YEK/NSK; elic. Jul. 4, 2022)

The domains of the foot containing the root and of the are complete prosodic word are distinct in cases with prefixes containing vowels like causativized V-initial verb roots without deobjective *ma-* (319) and with it (320), uncausativized V-initial verb roots with deobjective *ma-* (321), uncausativized subject nominalizations (322), causativized subject nominalizations (323), stative nominals formed from normal verbs (324), stative nominals formed from denominal verbs (325), and denominal verbs (326). The reader may have noticed that my analysis of Spell-Out proposes the same structural domains as Tan (2023), but I differentiate between feet and prosodic words. This distinction will be important later.

(319) a. [$_{PrWd}$ **’u-** [$_{Ft}$ **’-ami-b**]]
[$_{PrWd}$ 1SG- [$_{Ft}$ EPEN$_1$-look.for-CAUS]]
‘(I) tell to look for’
(YEK; elic. Feb. 2, 2024)

b. [$_{PrWd}$ **’u-** [$_{Ft}$ **’-inu-t**]]
[$_{PrWd}$ 1SG- [$_{Ft}$ EPEN$_1$-run-CAUS]]
‘(I) give to drink’ (YEK; elic. Jul. 14, 2021)

c. [$_{PrWd}$ **ta-** [$_{Ft}$ **’-aena-’**]]
[$_{PrWd}$ 1PL.INC- [$_{Ft}$ EPEN$_1$-run-CAUS]]
‘(we) make run’ (YEK; elic. Jan. 23, 2024)

(320) a. [$_{PrWd}$ **t-ma-** [$_{Ft}$ **’-ami-b**]]
[$_{PrWd}$ 1PL.INC-DEOB- [$_{Ft}$ EPEN-look.for-CAUS]]
‘(we) make each other look for’ (YEK; elic. Jan. 23, 2024)

b. [$_{PrWd}$ **’-ma-** [$_{Ft}$ **’-inu-t**]]
[$_{PrWd}$ 1SG-DEOB- [$_{Ft}$ EPEN-drink-CAUS]]
‘(I) give to drink with (someone)’ (YEK; elic. Jan. 24, 2024)

(321) a. [$_{PrWd}$ **’-ma-** [$_{Ft}$ **’-aem**]]
[$_{PrWd}$ 1SG-DEOB- [$_{Ft}$ EPEN-look.for]]
‘(I) look with (someone)’
(YEK; elic. Jan. 23, 2024)

b. [$_{PrWd}$ **t-ma-** [$_{Ft}$ **’-iit**]]
[$_{PrWd}$ 1PL.INC-DEOB- [$_{Ft}$ EPEN-see]]
‘(we) see each other’
(YEK/NSK; elic. Oct. 13, 2021)

(322) a. [$_{PrWd}$ **’-a-m** [$_{Ft}$ **n-ami-t**]]
[$_{PrWd}$ EPEN$_2$-SUB.NMLZ-EPEN$_1$ [$_{Ft}$ EPEN$_1$-look.for-NMLZ]]
‘(a) searcher’ (YEK; elic. Jan. 24, 2024)

b. [$_{PrWd}$ **’-a-m** [$_{Ft}$ **n-inu-t**]]
[$_{PrWd}$ EPEN$_2$-SUB.NMLZ-EPEN$_1$ [$_{Ft}$ EPEN$_1$-look.for-NMLZ]]
‘(a) drinker’ (YEK; elic. Jan. 24, 2024)

c. [$_{PrWd}$ **’-a-m** [$_{Ft}$ **n-aena-t**]]
[$_{PrWd}$ EPEN$_2$-SUB.NMLZ-EPEN$_1$ [$_{Ft}$ EPEN$_1$-look.for-NMLZ]]
‘(a) runner’ (YEK; elic. Feb. 2, 2024)

(323) a. [$_{PrWd}$ **’-a-** [$_{PrWd}$ [$_{Ft}$ **’-ami-b**] **-∅**]]
[$_{PrWd}$ EPEN$_2$-SUB.NMLZ- [$_{PrWd}$ [$_{Ft}$ EPEN$_1$-look.for-CAUS] -NMLZ]]
‘someone who orders a search’ (YEK; elic. Feb. 2, 2024)

b. [$_{PrWd}$ **’-a-** [$_{PrWd}$ [$_{Ft}$ **’-inu-t**] **-∅**]]
[$_{PrWd}$ EPEN$_2$-SUB.NMLZ- [$_{PrWd}$ [$_{Ft}$ EPEN$_1$-drink-CAUS] -NMLZ]]
‘someone who gives a drink’ (YEK; elic. Feb. 2, 2024)

c. [$_{PrWd}$ **’-a-** [$_{PrWd}$ [$_{Ft}$ **’-aena-’**] **-∅**]]
[$_{PrWd}$ EPEN$_2$-SUB.NMLZ- [$_{PrWd}$ [$_{Ft}$ EPEN$_1$-run-CAUS] -NMLZ]]
‘someone who makes (others) run’ (YEK; elic. Feb. 2, 2024)

(324) a. [$_{PrWd}$ **ma-m** [$_{Ft}$ **n-inu-'**]]
[$_{PrWd}$ STAT-EPEN$_1$ [$_{Ft}$ EPEN$_1$-drink-NMLZ]]
'(thing that) is drunk' (YEK/NSK; elic. Oct. 13, 2021)

b. [$_{PrWd}$ **ma-m** [$_{Ft}$ **n-éki-'**]]
[$_{PrWd}$ STAT-EPEN$_1$ [$_{Ft}$ EPEN$_1$-bring-NMLZ]]
'(thing that) is brought' (YEK; elic. Dec. 15, 2021)

(325) a. [$_{PrWd}$ **ma-** [$_{PrWd}$ [$_{Ft}$ **'-ume**]] -']
[$_{PrWd}$ STAT- [$_{PrWd}$ [$_{Ft}$ EPEN$_1$-house]] -NMLZ]
'has a house, housed' (Benu, Iye & Abbas 2022: 49)

b. [$_{PrWd}$ **ma-** [$_{PrWd}$ [$_{Ft}$ **'-osa**]] -']
[$_{PrWd}$ STAT- [$_{PrWd}$ [$_{Ft}$ EPEN$_1$-price]] -NMLZ]
'pricey, priced' (SRB/YFB/YEK/NSK; elic. Jun. 30, 2022)

(326) a. [$_{PrWd}$ **n-** [$_{PrWd}$ [$_{Ft}$ **'-ate**]]]
[$_{PrWd}$ 3- [$_{PrWd}$ [$_{Ft}$ EPEN$_1$-servant]]]
'be a servant' (Tan 2023: 111)

b. [$_{PrWd}$ **na-** [$_{PrWd}$ [$_{PrWd}$ [$_{Ft}$ **'-ate**]] -∅]]
[$_{PrWd}$ 3- [$_{PrWd}$ [$_{PrWd}$ [$_{Ft}$ EPEN$_1$-servant]] -CAUS]]
'put (someone) into servitude' (Tan 2023: 111)

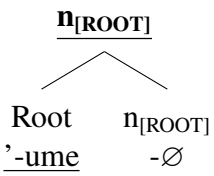
This is a lot of data, of varied structure, but there are several clear generalizations that emerge from it. First, most epenthesis is [ʔ] epenthesis. This occurs everywhere except nominalized verbs that are neither formed from originally nominal bases nor causativized (318, 322, 324), which feature [mn] epenthesis. Causativization (319, 320, 323) and things that are denominal verbs at some point in the derivation (316, 325, 326) consistently trigger [ʔ] epenthesis regardless of whether they ultimately find themselves in a noun or a verb. Verbs that have a V-V sequence can also be subject to [ʔ] epenthesis as a last resort (321). Lastly, epenthesis can be avoided if a prefix is able to combine with a V-initial root before Spell-Out (317), indicating a preference for having onsets supply domain-initial consonants when possible.

One can see from these examples that there is a difference in behavior between roots that are first categorized as verbs and roots that are first categorized as nouns. I follow Tan (2023: 193) is assuming that roots that first combine with n are Spelled Out as both complete feet and complete prosodic words. Examples showing this structure can be found in (224) and (225b). These nouns can then combine with verbal material like v heads like $v_{[+CAUS]}$, Voice heads like deobjective *ma-* or stative *ma-* or verbal nominalization suffixes like *-t* or *-'* in another prosodic word. Denominals thus exhibit a recursive structure.

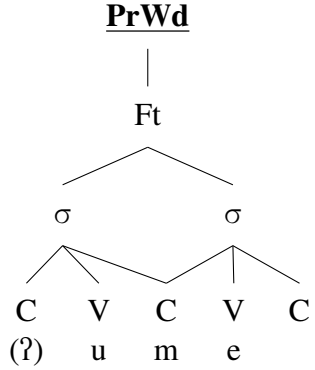
This can be schematized as in (327) and (328). A noun like *ume* 'house' combines directly with a root nominalizing head (327a). This triggers Spell-Out that forms both a foot and a prosodic word (327b). Deriving *ma'ume'* 'has a house, housed' (328) starts in the same way. The root noun is Spelled Out as a prosodic word. Then it can combine with stative *ma-* and nominalizing *-'* to

form another prosodic word (328b). The constituents on which Spell-Out occurs are underlined and bolded, and the locations of epenthesis are underlined. For reasons that are currently unclear to me, suffixes added after the noun is spelled out as a prosodic word are able to parse themselves into a foot missing its final consonant. This may be connected to how the first consonant of a CC-initial word following a V-final word can re-parse into the foot of the V-final word (238b).

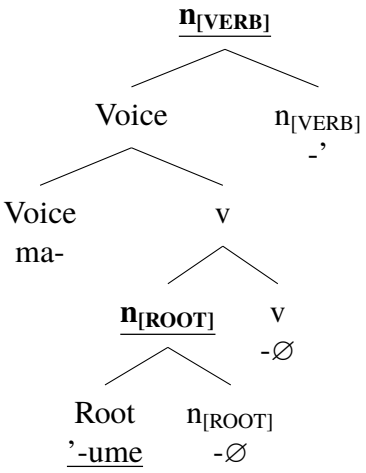
(327) a.



b.



(328) a.



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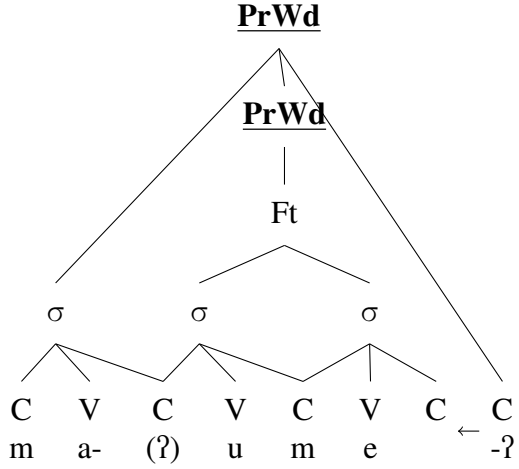
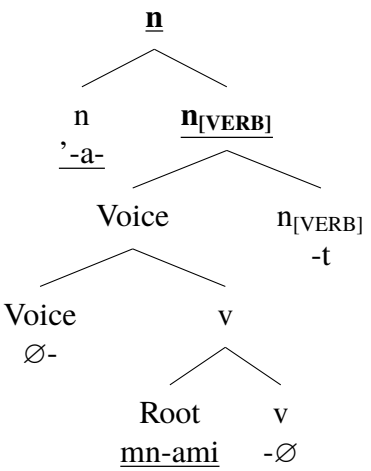
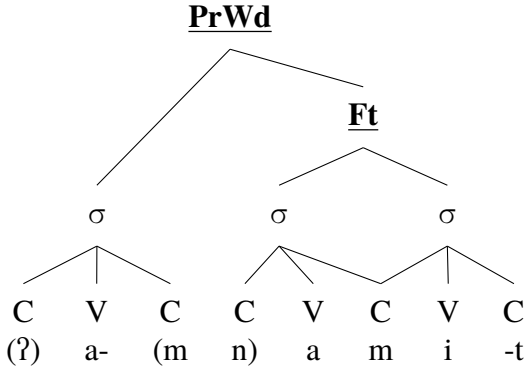


Based on a comparison of examples like the verbs in (317) vs. (319) and the nouns in (322) vs. (323), it is clear that $v_{[+CAUS]}$ also triggers Spell-Out, leading to [ʔ] epenthesis when necessary. Because $v_{[+CAUS]}$ is added to the structure before verbal nominalization, it is able to epenthesize [ʔ] before verbal nominalization can epenthesize [mn]. $v_{[+CAUS]}$ also blocks the insertion of an overt nominalization suffix. To illustrate these differences and the crucial role of $v_{[+CAUS]}$, the syntactic and phonological structures of the uncausativized nominalization in (322a) and the causativized nominalization in (323a) are provided in (329) and (330) respectively.

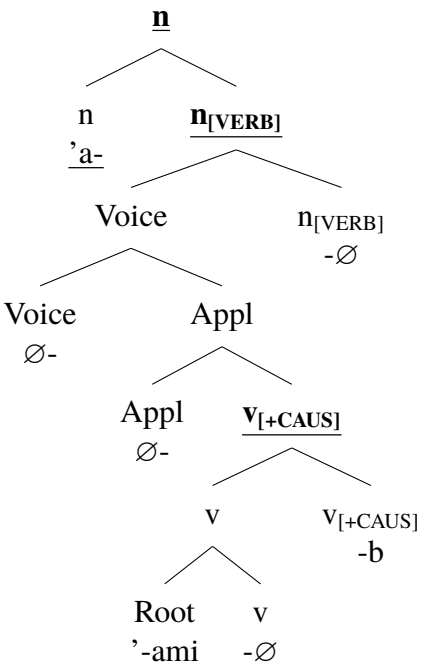
(329) a.



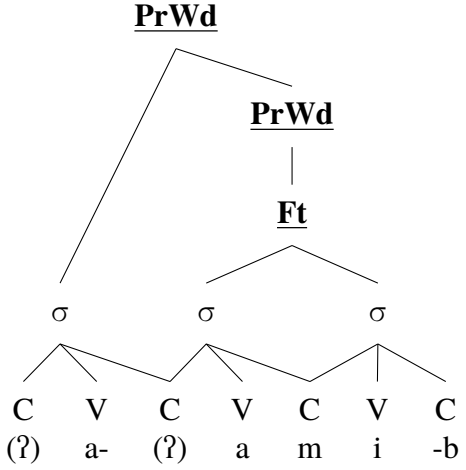
b.



(330) a.



b.

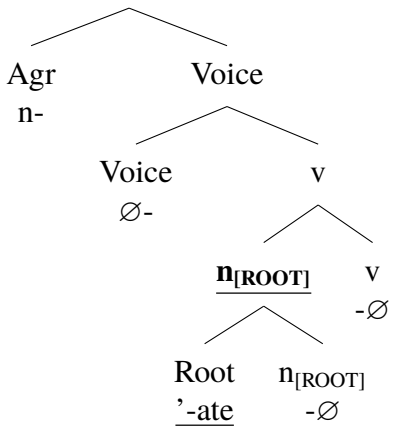


Now that these pieces are in place, we can address how this Spell-Out relates to agreement-prefix allomorphy. The examples in (326) have the same syntax other than (326b) containing $v_{[+CAUS]}$. We have seen that n triggers Spell Out, both when it attaches to roots and verbs, and we have also seen that $v_{[+CAUS]}$ triggers Spell Out. In order to account for the fact that verbs with agreement are quite evidently complete prosodic words, we must also assume that Agr triggers Spell Out. This means that in both (326a) and (326b), Agr is in a Spell-Out domain by itself. If there was a domain-minimality requirement that played a role in agreement-prefix allomorphy, we might expect both (326a) and (326b) to contain syllabic Agr, but this is not the case. The only way to predict asyllabic vs. syllabic Agr in this word is causativization.

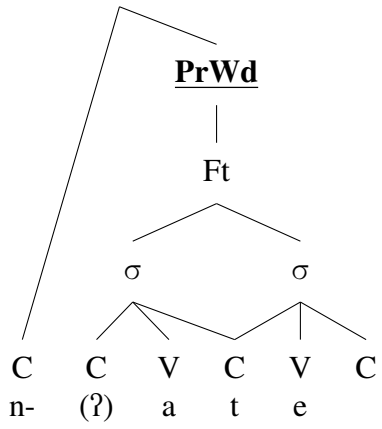
This idea is illustrated with the trees in (331) and (332). From a segmental standpoint, the verb

stems are phonologically identical *'ate* in both cases. $n_{[ROOT]}$ triggers the observed [ʔ] epenthesis in both cases. There is one more prosodic word Spell-Out domain triggered by $v_{[+CAUS]}$ in (332) compared to (331), but it would strange to attribute allomorphy to combining with a domain boundary containing two prosodic word domains rather than just one. Furthermore, within the highest prosodic word domain, Agr is the only morpheme, or at least the only overt morpheme, but it exhibits different allomorphs in each case. Thus, it is not possible to use domain minimality or anything else about domains to account for agreement-prefix allomorphy.

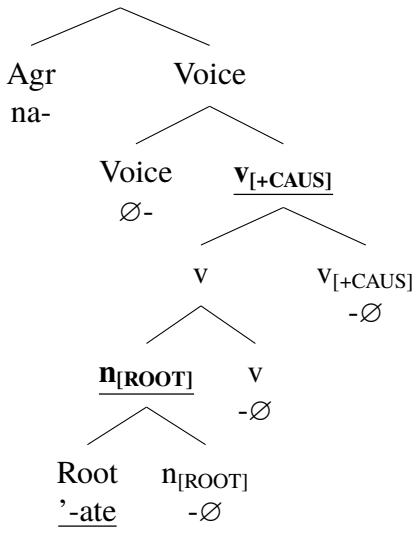
(331) a.



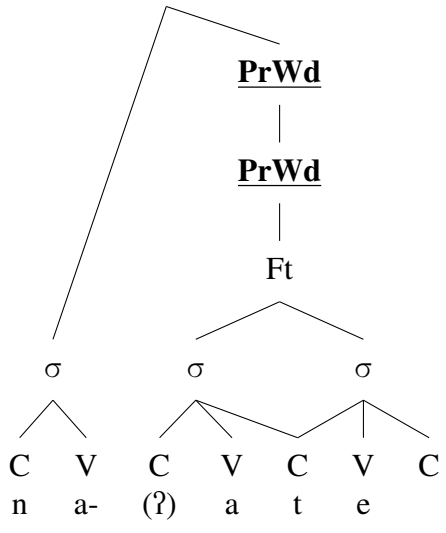
b.



(332) a.



b.



The reader may have noticed that I have not discussed $v_{[+HAVE]}$ as a possible trigger of Spell Out. This is because it is impossible to tell if $v_{[+HAVE]}$ triggers it. $v_{[+HAVE]}$ always combines directly with root nominalization ($n_{[ROOT]}$), which itself triggers Spell-Out. This means that $v_{[+HAVE]}$ never receives a V-initial stem. It may trigger Spell Out or it may not, but we will never see the effect. Thus, I will take the evidence from $v_{[+CAUS]}$ and its interaction with Spell Out to suggest that there

is no domain minimality requirement in Uab Meto that can be used to explain agreement-prefix allomorphy.

3.5.4 What any analysis must account for

The alternative analyses of Uab Meto agreement-prefix allomorphy discussed in sections 3.5.1, 3.5.2, and 3.5.3 are conceptually simpler than the one developed section 3.4. This greater conceptual simplicity makes them appealing, but they all fail to account for some part of the data. At the same time, this is not to say that the analysis of section 3.4 is unambiguously the best one. It is quite possible that there are simpler analysis that capture all of the data. Thus, with an eye towards such a future analysis, this section lays out what any analysis of this allomorphy must account for as theory-neutrally as possible, along with suggestions for the kinds of factors that different sorts of analyses might want to consider. In order to facilitate this discussion, Table 3.3 summarizing the allomorphy patterns is repeated as Table 3.8.

Stem type			**Agr allomorph**		**Example**	**Gloss**	**Source**
σσσ+			C-		n-'eusfaan	'sneeze'	(171a)
σσ	#CC		CV-		na-snaas	'stop'	(168a)
	#V		C-		n-o'en	'call'	(167a)
	#CV	non-causativized (inc. denominal)	C-	75%	n-took	'sit'	(179a)
			CV-	25%	na-foo	'smell'	(187a)
		non-causativized loan	C-		n-'utus	'dispatch'	(169a)
		causativized	CV-		na-toko-b	'seat'	(179b)
		deobjective	C-		n-ma-'ah	'eat e.o.'	(191)
σ/'eat'			CV-		na-ah	'eat'	(174c)
'come'			special		neem	'come'	(176c)

Table 3.8: Uab Meto agreement-prefix allomorphy patterns (repeated)

Starting from the top of the table, a major phonological conditioning factor for asyllabic (C-) Agr is the stem being trisyllabic or longer (σσσ+). One might be tempted to try to explain this pattern as resulting from a constraint against forming quadrisyllabic and longer (σσσσ+) words, a constraint against forming words or two feet or more, or a constraint against having a stress lapse from the presence of a syllable two before the main penultimate stress. Previous work has discussed the idea of a dispreference for σσσσ+ words (Tan 2023: 98) and a dispreference for adding more syllabic material to stems that are already larger than a single disyllabic foot (Edwards 2020: 441). Crucially, these are phrased as phonological tendencies, because there are exceptions.

Though most roots in Uab Meto are disyllabic, approximately 15% are σσσ+ (Edwards 2020: 143-144). 6% of roots are σσσσ+. One example that we have seen is quadrisyllabic *haumaka*/*haumaak* 'be near' (333). The verb in (333b) is phonologically diagramed in (235b).

(333) a. Hoo **m-haumaak** kau.
2SG.NOM 2SG-near 1SG.ACC
'You are near me.'
(YEK; elic. Jan. 13, 2024)

b. Hoo **m-haumaka-b** kau.
2SG.NOM 2SG-near-CAUS 1SG.ACC
'You make me near (you).'
(YEK; elic. Jan. 13, 2024)

It is also possible to derive σσσσ+ words. Most relevantly to Agr allomorphy, there are cases where adding a monosyllabic prefix turns a trisyllabic word into a quadrisyllabic one. For example, one can take the stative nominal *matokob* 'be seated' in (334a) and add the prefix *a-* to create the corresponding subject nominalization *amatokob* 'one who is seated' in (334b). The structure of *amatokob* is provided in (147).

(334) a. Iin **ma-toko-b-∅**.
3SG.NOM STAT-sit-CAUS-NMLZ
'He/She/It was seated.' (YEK/NSK; elic. May 11, 2022)

b. **A-ma-toko-b-∅** nae n-took es au '-toko-'.
SUB.NMLZ-STAT-sit-CAUS-NMLZ DEM.DIST 3-sit IPFV.LOC 1SG.NOM NMLZ-sit-NMLZ
'That seated person is sitting in my chair.' (YEK; elic. Oct. 28, 2021)

One could argue in this case that deriving this quadrisyllabic word is only possible due to /a/ being the entirety of the subject nominalization prefix, which must be expressed, but there are other examples. Perhaps the most interesting are examples involving stative *m(a)-*, which section 2.4.2 analyzes as having two allomorphs, asyllabic *m-* on verbs and syllabic *ma-* on nouns. In terms of the shape of the alternations, this allomorphy is identical to that of Agr. However, the conditioning environments are quite distinct. Relevant here is that on σσσ+ nominal bases, stative *m(a)-* still surfaces as *ma-*, as shown in (335) for the trisyllabic verb *katéli* 'scissor'. It does not become *m-*[19].

(335) a. Au 'naak-k=e m-palu he **'-katéli**.
1SG.NOM HEAD-1SG.INAL=DEF 3-need IRR 1SG-scissor
'My hair needs me to cut it.' (YEK; elic. Oct. 27, 2021)

b. Au 'naka-k naof-n=e m-palu he **ma-katéli-'**.
1SG.NOM HEAD-1SG.INAL hair-3SG.INAL=DEF 3-need IRR STAT-scissor-NMLZ
'My hair needs to be cut.' (YEK; elic. Oct. 27, 2021)

There is no inherent problem with word-initial [mk] clusters either, as shown the examples in (336).

(336) a. Hoo m-palu he **m-katéél** naka-m nafu-n.
2SG.NOM 2SG-need IRR STAT-scissor HEAD-2SG.INAL hair-3SG.INAL=DEF
'You need to cut your hair.' (YEK; elic. Oct. 27, 2021)

b. Hoo **m-kumani-b** siin.
2SG.NOM 2SG-smile-CAUS 3PL
'You make them smile.' (YEK; elic. Jan. 24, 2024)

[19]Tan (2023: 98) also provides an example of a quadrisyllabic stem to which deobjective *ma-* attaches, *faineka* 'advise'. The stem formed with *ma-* is *ma-faineka* 'advise each other'.

Lastly, as we saw in section 3.2.4, reduplication does not count in the evaluation of σσσ+. An additional example is provide in (337). Examples like (197) provide evidence that reduplication happens after an Agr allomorph has been selected and inserted.

(337) a. le' **<u>mi-</u>pa∼pau=be**
REL 1PL.EXC-pound.RED∼pound=3SG.ACC
'the things that we pounded' (HNK; AOZ2019-MON006, line 401)

b. Fun hai atóin taan=je oka=t ka= **<u>mi-</u>pau=be**
because 1PL.EXC.NOM man farmer=DEF then=SET NEG= 1PL.EXC-pound=3SG.ACC
=fa.
=NEG
'Because then we farmers will not pound it' (HNK; AOZ2019-MON006, line 647)

All of this suggests that something is special about Agr that causes it to expone its asyllabic form when attaching to non-reduplicated σσσ+ stems, including causativized ones like (333b) and (336b). The analysis advanced in this chapter simply stipulates that σσσ+ is an allomorphic conditioning factor for asyllabic Agr, and this allomorphic selection must precede reduplication. An analysis that wishes to avoid these stipulations must find some morphosyntactic or phonological way to differentiate Agr from subject nominal *a-*, stative *m(a)-*, and reduplication.

Moving onto the other phonological conditioning factors, CC-initial stems' selection of syllabic (CV-) Agr is very likely the result of what appears to be an inviolable constraint against CCC sequences in Uab Meto, both within words and across word boundaries. More information on this can be found in the discussion surrounding (307). This strict constraint is straightforwardly phonotactically motivated, so as long as Agr can see that the stem to which it is attaching is CC-initial, this should not present significant difficulties. One aspect of this to note is that Agr must be able to see the whole stem, not just the adjacent morpheme. Stative *m(a)-* on verbs only supplies one of the consonants of the stem-initial CC-cluster in examples like (338).

(338) a. *Buuk*=be **<u>na-</u>m-sóóp-∅**.
book=DEF 3-STAT-go.through-CAUS
'The book was cut.'
(YEK; elic. Oct. 13, 2021)

b. Hae-k=e **<u>na-</u>m-'ipu**=te.
leg-1SG.INAL=DEF 3-STAT-break=SET
'My leg was broken.'
(LTK; AOZ2019-MON011, line 152)

V-initial stems' taking asyllabic (C-) Agr is somewhat more difficult to account for. The reason for this is that V-initial stems switch to taking syllabic Agr when causativized, but with [ʔ]-epenthesis to convert the V-initial stem into a CV-initial one (339). The account developed in this chapter handles this by postulating that V-initial is not an active conditioning factor for asyllabic Agr and that [ʔ]-epenthesis occurs in the phonology, after Agr allomorph selection and Vocabulary Insertion. There are several factors to which one could appeal to explain this epenthesis. This epenthesis also occurs between deobjective *ma-* and V-initial verb roots (313), suggesting that this process is independent of Agr. Tan (2023: 97) thus suggests a *V-V constraint. In addition, given that most Uab Meto verb roots are disyllabic, the language forms disyllabic feet, and feet are required to be C-initial

(Edwards 2020: 118), one could account for this epenthesis by appealing to this requirement for feet. Either an asyllabic Agr prefix or epenthesis can supply the onset consonant. A third option that works in cases like (247b) and (339b) but not in cases like (247a) is that Uab Meto disallows sequences of three or more vowels (*VVV) (Edwards 2020: 95), which can also be resolved via [ʔ]-epenthesis. One could appeal to any combination of these in a more phonologically oriented account. However, one prominent exception that needs to be handled is basic conjugations of *ha/ah* 'eat' when the roots has metathesized into its V-initial form (340).

(339) a. Au **'-iun** oel/oe.
1SG.NOM 1SG-drink water
'I drink water.'
(YEK/NSK; elic. Jul. 14, 2021)

b. Au **'u-'-iun-t**=e oel.
1SG.NOM 1SG-EPEN-drink-CAUS=3SG.ACC water
'I give him/her/it water.'
(YEK; elic. Jun. 27, 2022)

(340) a. Au **'u-ah**.
1SG.NOM 1SG-eat
'I eat.'
(YEK; elic. Jul. 17, 2019)

b. Iin **na-ah**.
3SG.NOM 3-eat
'He/she/it eats.'
(YEK; elic. Jul. 17, 2019)

c. Hii **mi-ah**.
2PL.NOM 2PL-eat
'You (pl.) eat.'
(YEK; elic. Jul. 17, 2019)

There is also the question of what would stop a V-initial root/stem from lexically or grammatically selecting for a syllabic Agr prefix, rather than its being conditioned by causativization. I do not actually think this is something that needs to be prevented. It is quite possible that such cases exist, but they are obscured by [ʔ]-epenthesis such that the root always appears to be CV-initial. For example, this dissertation would attribute the [ʔ] between Agr and the root in *na'uul* 'rains' (341a) to the idea that *na'uul* is a denominal verb, and the noun from which the verb is derived, *ulan* 'rain' (341b), has already undergone Spell-Out triggered by n. It has thus already had [ʔ]-epenthesis. It is also just possible that the root is underlyingly [ʔ]-initial, but we cannot tell, because [ʔ] and [∅] do not contrast word-initially in Uab Meto (Edwards 2017: 417).

(341) a. Neno ii **na-'uul**.
day DEM.PROX 3-rain
'Today it is raining.'
(YEK/NSK; elic. Feb. 16, 2022)

b. **'ulan**
rain
'rain'
(YEK; AOZ2019-WORDLIST001, line 134)

An example that does not clearly lend itself to a nominal derivation is the root *'éku/éók* 'meet' (342). I am not aware of a noun from which this verb could be derived, and there is no apparent causativization. Thus, one is left with two possibilities. Either the [ʔ] is underlyingly part of the root, as in cases like (343), or this root lexically selects for syllabic Agr, and the [ʔ] is epenthesized as a repair. Any account must posit some source for the [ʔ], but there are a few choices.

(342) a. Hoo mu-'éók **sekau**?
2SG.NOM 2SG-meet who
'Who did you meet?
(YEK/NSK/YFB; elic. Jun. 25, 2022)

b. Hoo mu-'éók m-ook **sekau**?
2SG.NOM 2SG-meet 2SG-with who
'Who did you meet with?
(YEK/NSK/YFB; elic. Jun. 27, 2022)

(343) a. Ina **n-'ote** 'naak-f=ini.
3SG.NOM 3-cut head-INAL=PL.DEF
'He/she cuts heads.'
(Steinhauer 1996a: 223)

b. Hoo **m-'iup** hau toe-f=e.
2SG.NOM 2SG-break tree branch-INAL=DEF
'You broke the tree branch.'
(YEK/NSK; elic. Sep. 15, 2021)

Moving onto CV-initial stems, certainly the area of the greatest complexity, there are several important aspects that must be accounted for. Loanwords do not require any special explanation, because they reflect the patterns that native stems do without lexical conditioning as a factor. Thus, their behavior serves as a source of evidence for the default grammatical and phonological patterns.

Among complications, the first is accounting for the roughly 25% of disyllabic CV-initial roots/stems that take syllabic Agr. Some of these, such as *tuin* 'follow' are most likely lexically idiosyncratic, but it would be undesirable for a full quarter of these roots/stems to given this treatment. Therefore, any analysis would ideally posit an explanation for the behavior of these roots/stems. This dissertation argues for an analysis whereby the majority of these stems are formed from denominal verbs that combine with the $v_{[+HAVE]}$ allomorph of $v_{[+BE]}$.

It is unclear where one could find a surface phonological explanation for the variation in Agr allomorphy among these stems. There are some minimal pairs, for example (344). Perhaps a more abstract phonological explanation involving Spell-Out domains could be reached. Notably, to my knowledge there are no denominal verbs that are V-initial, which would allow an asyllabic Agr prefix to supply its onset. One explanation for this is that when a root combines with n, it triggers Spell-Out and the corresponding epenthesis of root-initial [ʔ] if needed. However, both asyllabic (345a) and syllabic (345b) Agr are attested on denominal verbs with potential [ʔ]-epenthesis, so something further needs to be said. Ultimately, a phonological explanation may require a more fine-grained analysis of the effects of Spell-Out, including possible differences between heads that trigger it. Another possible phonological route would be based on the observation that there are many noun-verb pairs in Uab Meto where the verb lacks the final consonant of the noun. This process is not consistent (see section 2.2.3), and it is not clearly correlated to Agr allomorphy in any way, but it may help to elucidate phonological aspects associated with the derivation of the verbal complex. One could also appeal to a syntactic explanation. Denominals that combine with $v_{[+BE]}$ are unaccusative, and those that combine with $v_{[+HAVE]}$ are unergative or transitive. Regardless of the explanation, this contrast in Agr-prefix selection must be accounted for.

(344) a. **n-fua**
3-worship
'does traditional worship'
(Tan 2023: 102)

b. **na-fua**
3-fruit
'bears fruit' (Tan 2023: 102)

c. **n-sae**
3-rise
'rises, ascends'
(Tan 2023: 100)

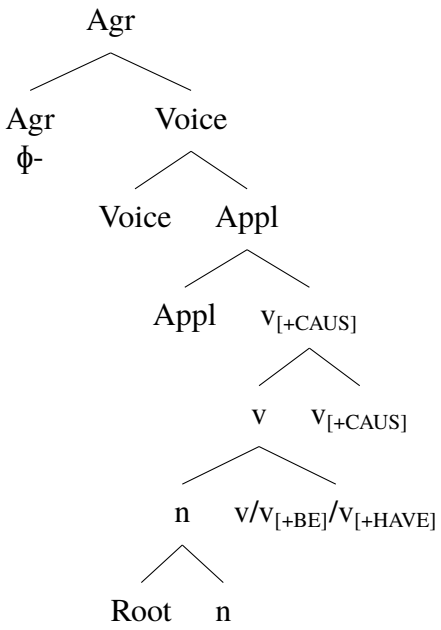
d. **na-sae**
3-miss
'to miss (e.g. an event)' (Tan 2023: 100)

(345) a. Hoo **<u>m-</u>'aet**.
2SG.NOM 2SG-servant
'You are a servant.'
(Tan 2023: 184)

b. Neno ii **<u>na-</u>'uul**.
day DEM.PROX 3-rain
'Today it is raining.'
(YEK/NSK; elic. Feb. 16, 2022)

Perhaps the most complex area to account for is the set of interactions between lexical conditioning, causativization, deobjective *ma-*, and σσσ+. The first part of this is simply accounting for the fact that causativized verbs take syllabic Agr, unless doing so would create a σσσσ+ verb (333b, 336b). The major difficulty to overcome here is that, assuming the analysis of verbal structure in (346) is correct, the causative head $v_{[+CAUS]}$ is either null (347) or a suffix (348) that is neither linearly nor structurally adjacent to Agr. Any analysis that posits linear and/or structural adjacency as necessary for allomorphic conditioning must find some way to create adjacency.

(346)



(347) a. Faat=be **<u>n-</u>móóf**.
stone=DEF 3-fall
'The stone fell.'
(YEK; elic. Oct. 6, 2021)

b. **<u>Na-</u>móóf-**∅ fatu.
3-fall-CAUS stone
'He/she/someone dropped a stone.'
(YEK; elic. Oct. 6, 2021)

(348) a. Ina **<u>n-</u>took**.
3SG.NOM 3-sit
'He/she sits.'
(YEK/NSK; elic. Oct. 27, 2021)

b. Iin **<u>na-</u>toko-b** kau.
3SG.NOM 3-sit-CAUS 1SG.ACC
'He/she seated me.'
(YEK/NSK; elic. Oct. 27, 2021)

For linear adjacency, there are a few possible routes. One could assume that all functional heads in the verbal complex are underlyingly prefixal, potentially allowing them to be linearly adjacent to Agr at a point in the derivation before linearization, but this should be motivated somehow.

Furthermore, even if $v_{[+CAUS]}$ were demonstrated to be linearly adjacent to Agr at some point in the derivation, one must determine what feature(s) it can reference. The consonants [b], [t], [n], and [ʔ] do not instantiate any particular natural class in Uab Meto, and there still remains the fact that many verbs do not have an overt causative suffix at all. In fact, we do not want the consonantal phonology of the overt allomorphs of $v_{[+CAUS]}$ to count towards creating a CC-cluster, because that would create the same complications with forbidden CCC-clusters that a ghost consonant (Tan 2023) can create. Another possibility would see if $v_{[+CAUS]}$, before it becomes a suffix, can somehow condition a vowel slot on Agr that is filled by the vowel associated with the appropriate syllabic allomorph. It is unclear how the segmental phonology of $v_{[+CAUS]}$ (or occasional lack thereof) would achieve this, so one could maybe posit something special about the effects of Spell-Out by $v_{[+CAUS]}$ versus Spell-Out by other heads.

Another possibility, tacitly accepted in this dissertation, is that Agr looks to the whole stem (Paster 2009) to which it is linearly adjacent for features relevant to its allomorphy. If one goes down this route, the question becomes which features of the stem count as features of "the whole stem". Paster (2009) suggests that syllable count or segmental features on the same side of the stem as the affix undergoing allomorphic selection are visible. Phonological features on the opposite side of the stem should not count, and one would need to prevent these features being visible somehow. If grammatical features are visible, which ones, and why? One could also take a closer look at Voice, the only head other than the root that is often overt and adjacent to Agr when overt. This general idea leads to something like the ghost-consonant analysis of Tan (2023) (section 3.5.2). Even if that idea does not full pan out, one could take the logic of $v_{[+CAUS]}$ and $v_{[+HAVE]}$ interacting with the phonology of Voice in some subtle way or percolating up some grammatical feature that Agr can see. If one were to posit a form of percolation and no Pruning or Obliteration, one would then need to provide an account of why features from lower heads can percolate up to active/"default" Voice but not deobjective *ma-*.

If one were to propose a condition of structural adjacency without Obliteration, one possible route would be an analysis using spans (Merchant 2015). This would allow one to avoid having to posit feature percolation, in exchange for the complication of figuring out how to characterize the span correctly. The same difficulty, but more intensely, applies to analyses that do not require adjacency or a span (Choi & Harley 2019; Moskal & Smith 2016). A natural first pass would be to say that the span of $v_{[+CAUS]}$ and active/"default" Voice conditions syllabic Agr. One must then contend with the fact that Appl can intervene between these two heads, so either it is an optional part of the span, or it can be ignored for whatever reason. Justifying an alternative syntax where Appl is below $v_{[+CAUS]}$ could avoid this issue.

All of these approaches must also contend with the observation that the stem being σσσ+ overrides grammatical conditioning by $v_{[+CAUS]}$, $v_{[+HAVE]}$, and whatever other heads may be posited to grammatically condition syllabic Agr, even when everything else works. This chapter simply stipulates that σσσ+ overrides any grammatical conditioning. As discussed above, any explanation that tries to derive this outcome must explain why other prefixes that could theoretically be subject to the same loss of a vowel do not lose their vowel when creating σσσσ+ words. An additional aspect of σσσ+ stems that must be accounted for is that stems in which no individual morpheme is σσσ+ still count for this allomorphic conditioning (349). Thus, any analysis must allow Agr to look at

the syllable count of the whole stem.

(349) a. **n-'oe-meta-b**
3-water-black-CAUS
'make dirty'
(Tan 2023: 328)

b. **na-bua** *vs.* **m-bua** **hae-n**
3-clump vs. 3-clump-leg-3SG.INAL
'gather' (YAF; AOZ2019-MON004, line 270) vs.
'cross (his) legs' (HNK; AOZ2019-MON006, line 591)

Lastly on this front, any analysis must have an explanation for the different effects of "default" Voice and deobjective *ma-* on Agr allomorphy that is independent of the syllable count of the stem, or at least not crucially reliant on it. This is to account for examples like (350) where the stem is disyllabic even after the addition of *ma-*. A phonologically oriented explanation must be able to differentiate *ma-* from any other pre-Agr CV syllable. A structurally oriented explanation must reference some grammatical feature. A question in both cases is why any feature relevant to Agr allomorphy from below cannot percolate through *ma-* or why *ma-*'s grammatical features exclude it from conditioning syllabic Agr, either alone or as part of a span. A hybrid explanation like the one in this chapter treats *ma-* as unique due to its overt phonology in contrast to "default" Voice and its structural position between Agr and every other head, in contrast to roots and $v_{[+CAUS]}$/$v_{[+HAVE]}$.

(350) Context: There are a pig and a dog, and they are both hungry. They see each other. The pig wants to eat the dog, and the dog wants to eat the pig.

@ Hita **t-ma-'-ah**.
1PL.INC.NOM 1PL.INC-DEOB-EPEN-eat
'We eat each other.' (YEK; elic. Jan. 13, 2024)

Moving onto the last part of the table, lexical idiosyncrasy, there are different levels of irregularity that require more particular things to be said as irregularity increases. In cases where the only irregularity is the selection of syllabic Agr, as with *tuin* 'follow' (172b), any analysis must allow for a verb root to lexically condition syllabic Agr, or it must find some phonological or grammatical correlate for this apparent lexical idiosyncrasy. Assuming one allows for lexical conditioning, a theory based on linear adjacency is straightforward, since roots lexically condition syllabic Agr when they are linearly adjacent to Agr. If *ma-* intervenes, they do not. A more structurally oriented analysis runs into the need to explain why lexical conditioning can percolate through "default" Voice but not *ma-*, as in (350). As discussed earlier, such an analysis would require an analogous explanation for grammatical conditioning from any heads posited to play that role.

The verb *ha*/*ah* 'eat' is the only monosyllabic verb root in the language. This fact lends itself to an explanation for the behavior of this root based on this unique attribute. Perhaps it licenses syllabic Agr due to a disyllabic word-minimality requirement. Perhaps this requirement is more important than satisfying *V-V. A question here is at what point these phonological characteristics and constraints can start to matter. If the root undergoes Vocabulary Insertion before Agr, then Agr should be able to reference aspects of the root's phonology, but can allomorphy care about something like word minimality?

Lastly, a full account of Uab Meto agreement-prefix allomorphy requires an explanation of the behavior of the 'come' verbs *uu*/*ii* (266) and *Vma*/*VVm* (274). These verbs are both unique in

ways that are difficult to attribute to anything other than lexical idiosyncrasy, so an analysis of their behavior is likely to posit processes that apply specifically to one or both of these roots. Regarding *uu*/*ii*, the Agr prefixes work as expected for a V-initial root. The unusual trait of this verb is the special root form *ii* with 1PL.EXC and 2PL subjects. Section 3.4.4 analyzes this by adopting a version of bivalent ϕ-features (Table 3.5) to capture the syncretism of 1PL.EXC and 2PL in all areas of Uab Meto agreement to the exclusion of 1PL.INC and a special root allomorph conditioned by disagreeing speaker and addressee features (268b). This can surely be done in another way. The crucial thing is to have a non-default allomorph that can be conditioned by 1PL.EXC and 2PL to the exclusion of all other person/number combinations. *Vma*/*VVm* requires the appealing to the same 1PL.EXC and 2PL syncretism, as well as syncretism between 1SG/2SG, which only exists for this verb. Another irregularity of *Vma*/*VVm* is that 1PL.EXC and 2PL exhibit a particular form *éém* that does not feature a typical Agr prefix, and 1SG/2SG exhibit a different form *óóm* that does not feature a typical Agr prefix, but the remaining 1PL.INC and 3SG/3PL forms take the expected *t*- and *n*- prefixes. Thus with this verb, one must account both for the syncretisms and the fact that some forms use typical Agr prefixes and others appear to be fused Agr.Root forms. One can propose a Fusion process based on the ϕ-features of the relevant forms (275), one can allow insertion on more than one terminal node at once, or one could propose a different process.

If this discussion has achieved anything, it has shown that analyses of Uab Meto agreement-prefix allomorphy other than the one presented in section 3.4 are possible, but it is not immediately clear that any alternative that achieves full empirical coverage would be any less complicated. This discussion has hopefully at least made clear the essentials of what any analysis of this area of Uab Meto grammar needs to capture, as well as communicated some potential starting points for alternative ways to account for these essentials.

3.5.5 Section conclusion

This section has presented some possible alternative analyses to the one in section 3.4. All of these analyses are conceptually simpler in some way than that analysis, but they all face some emprical difficulties. There is no evidence that verbs that combine with $v_{[+CAUS]}$ or $v_{[+HAVE]}$ feature an extra [ʔ] or any other consonant that would regularly create CC-clusters before Agr in these verbs (3.5.1), so an analysis based mostly on this aspect of overt phonology is not possible. Similarly, positing a ghost consonant ($\varnothing_C$) in lieu of an extra overt consonant runs into difficulties with trisyllabic or longer causatives and CC-initial roots (3.5.2). The CC-initial root case could be accounted for by saying that the ghost consonant is null when attaching to CC-initial roots, but this is difficult to prove, and in the σσσ+ causatives case, the ghost consonant cannot see the phonology of Agr when it is inserted. Agr is further out, and Agr also crucially depends on the ghost consonant having been inserted to condition its own allomorphy. Lastly, there is evidence that $v_{[+CAUS]}$ triggers Spell Out, so one might wonder if syllabic Agr in the presence of $v_{[+CAUS]}$ can be attributed to a domain minimality requirement (3.5.3). It is clear that domains outside of $v_{[+CAUS]}$ can consist solely of both syllabic and asyllabic Agr, so this will not be helpful in explaining agreement-prefix allomorphy. In light of all this, section 3.5.4 attempts to lay out all the aspects of these allomorphy patterns that any analysis must account for. An analysis more reliant on phonology may be possible, but will likely

require an appeal to abstract phonological representations or different effects on the phonology depending on the particular Spell-Out Domain.

3.6 Theoretical implications and chapter conclusion

This chapter has analyzed the allomorphy displayed by Uab Meto's verbal agreement prefixes, primarily between asyllabic and syllabic prefixes, but also irregular verbs with stem changes. Agreement prefix allomorphy in the language is conditioned by a variety phonological, grammatical, and lexical factors, but these are all necessary to account for as much of the data as possible. Phonological factors like CC-initial and V-initial explain why all stems of these phonological shapes always take syllabic and asyllabic prefixes respectively. Among CV-initial stems, appealing to $v_{[+CAUS]}$ explains why most morphologically causativized verbs take syllabic prefixes, regardless of the prefix they take otherwise. Underlyingly V-initial stems even feature [ʔ] epenthesis when causativized so they can be CV-initial for the syllabic Agr that $v_{[+CAUS]}$ conditions. Appealing to $v_{[+BE]}$ and $v_{[+HAVE]}$ explains why some denominal verbs take asyllabic prefixes while others take syllabic ones. Conditioning for asyllabic prefixes by trisyllabic or longer stems plus an appeal to a principle whereby phonological constraints take precedence over grammatical ones explains why these long stems invariably take asyllabic prefixes, including when a grammatical conditioner of syllabic prefixes like $v_{[+CAUS]}$ is present. Finally, there remain some tricky cases of verbs taking syllabic prefixes that cannot be explained by any of these mechanisms. I tentatively attribute these to lexical selection. In cases like the unique *Vma*/*VVm* 'come', with its lack of typical agreement prefixes and Fusion, this is almost certainly correct. Other cases like *tuin* 'follow' and *ha*/*ah* 'eat' may also represent cases of lexical selection, or there may be an alternative explanation that is yet to be found. Finally, this chapter discusses alternative analyses for the agreement-prefix allomorphy, their advantages and disadvantages, and why I believe that the analysis in this chapter is ultimately preferable.

The analysis presented here makes several comments on the nature of allomorphy in general, the nature of Vocabulary Insertion, and the nature of operations in Distributed Morphology. In the introduction to this chapter (section 3.1), I mentioned three areas of research that fall under the broader umbrella of figuring out the conditions under which a morpheme or set of morphemes can condition allomorphy on another morpheme. I will now return to those areas and discuss what the analysis has to say about each of them.

Regarding **research area 1**, the **types of structural or linear locality** that morphemes must have to one another, cases like (351) show that phonological factors like being trisyllabic or longer (σσσ+) can be evaluated on the basis of the whole stem, rather than just the adjacent morpheme. $v_{[+CAUS]}$ is the structurally adjacent morpheme after Obliteration, but this also means that the whole stem headed by $v_{[+CAUS]}$ is structurally adjacent to Agr after Obliteration. Adding to this point, no individual morpheme in the stem must be σσσ+. The largest individual morphemes in (351a) are disyllabic. Having an individual morpheme be σσσ+ produces the same result for agreement-prefix allomorphy (351b). This supports the idea that whole stems (Paster 2009: 28) or spans (Svenonius 2012, Merchant 2015) can condition allomorphy as long as they are structurally adjacent as a whole to the morpheme being conditioned.

(351) a. **n-'oe-meta-b**
3-water-black-CAUS
'make dirty' (Tan 2023: 328)

b. Au **'-kumani-b** koo.
1SG.NOM 1SG-smile-CAUS 2SG.ACC
'I make you smile.' (YEK; elic. Jan. 24, 2024)

It would even appear that a form of noun incorporation between a verb and its object can serve as a way to form σσσ+ stems. Verbs that normally take syllabic Agr (352a) switch to taking asyllabic Agr when they are part of such a stem (352b).

(352) a. **Na-bua** n-ook ah usi-f Noetoko.
3-clump 3-with FILL king-KIN Noetoko
'It joined with the king of Noetoko.' (YAF; AOZ2019-MON004, lines 270-272)

b. Ina **m-bua 'nima-n**|a **m-bua hae-n**.
3SG.NOM 3-clump arm-3SG.INAL|EPEN 3-clump leg-3SG.INAL
'He crosses his arms, crosses his legs.' (HNK; AOZ2019-MON006, line 591)

Individual morphemes can also condition allomorphy, and other morphemes can intervene to block it. Cases like (188) and (191) show that the presence of an overt Voice head blocks allomorphic conditioning by a lower head. If Voice is not Obliterated, the root or $v_{[+CAUS]}$ is not structurally adjacent to Agr to condition lexical or grammatical allomorphy. This suggests that adjacency, ether at the outset or created via Obliteration, is essential for allomorphic conditioning.

When phonological constraints do not interfere, the fact that a causative ($v_{[+CAUS]}$) suffix can condition allomorphy on a non-linearly-adjacent agreement (Agr) prefix indicates that phonological adjacency of the morphemes in question is NOT needed. In this case, one can say that structural adjacency is sufficient. The analysis here also allows for less constrained conditions whereby being adjacent to the $v_{[+CAUS]}$ complex-head constituent is sufficient, assuming phonological factors do not override $v_{[+CAUS]}$. This sort of structural allomorphic conditioning is acceptable for Bobaljik (2000) and Merchant (2015), but it is a problem for Paster (2009), Embick (2015), and Gribanova & Harizanov (2017). One could also likely account for the various kinds of allomorphy exhibited by Uab Meto Agr with a theory that does not rely on adjacency of any sort like Choi & Harley (2019), but one would need an analysis that can handle morphemes that appear to cause intervention effects, especially deobjective *ma-*.

Regarding **research area 2**, the **types of allomorphic conditioning** that are possible in different structural configurations, the fact that Agr allomorphy can be grammatically conditioned by the presence of $v_{[+CAUS]}$ and $v_{[+HAVE]}$, which are often null, demonstrates that inward-sensitive gramatically conditioned allomorphy is possible (Harizanov & Gribanova 2014) and therefore, that Vocabulary Insertion does not overwrite grammatical information. This is also in line with Embick (2015) but a problem for Bobaljik (2000).

Regarding **research area 3**, **how to rank competing conditioning factors**, with trisyllabic and quadrisyllabic stems causativized with $v_{[+CAUS]}$, the fact that the length of the stem overrides the conditioning for a syllabic prefix by $v_{[+CAUS]}$ (351) requires some sort of exogenous ordering independent of the conditioning factors of themselves. Though one can often decide between two allomorphs based on specificity according to the Subset Principle (Halle & Marantz 1993), there

is no logical subset relationship between phonological and grammatical conditioning. One way to explain this would be to appeal to an idea like phonological constraints taking precedence over grammatical constraints, at least in some languages. This is the P » M constraint of McCarthy & Prince (1993) or the related idea from Harizanov & Gribanova (2014) of phonological context being more specific than grammatical context.

There are some broader conclusions not discussed in section 3.1 that are also worth mentioning. The analysis presented here comments on the **nature of vocabulary insertion**. The derivation in (285) and (286a) of a stem that blocks the conditioning of a syllabic agreement prefix by the root depends on the insertion of the Voice head deobjective *ma-*. The same is true of stems where deobjective *ma-* blocks conditioning by $v_{[+CAUS]}$ (286b) and $v_{[+HAVE]}$ (286c). In order for deobjective *ma-*, a Voice head, to not be Obliterated, allowing it to block conditioning by the root $v_{[+CAUS]}$, its phonological content must have been inserted by the time that Agr enters the derivation and looks at its environment. On the other hand, in order for roots and $v_{[+CAUS]}$/$v_{[+HAVE]}$ to successfully condition syllabic Agr in verbs without deobjective *ma-*, null "default" Voice must have undergone Vocabulary Insertion and then been Obliterated by the time that Agr enters the derivation and looks at its environment. All of these morphemes are below Agr, and Agr's allomorphy depends on the outcome of Vocabulary Insertion and Obliteration on all of them. This supports the standard assumption that Vocabulary Insertion proceeds root-outwards (Bobaljik 2000).

Furthermore, for the analysis here to work, one must also say that Vocabulary Insertion does not overwrite any grammatical features or structural information. All grammatical features and structure, except for when a morpheme is Obliterated, must be preserved. This suggests that Vocabulary Insertion purely adds information. If information is lost at some point in the derivation, some other operation like Pruning, Obliteration, or Impoverishment must be responsible.

In terms of **vocabulary items and features**, the analysis in section 3.4.4 of the root suppletion and Agr-Root Fusion exhibited by the *uu*/*ii* 'come' (266) and *Vma*/*VVm* 'come' (274) provide support for bivalent feature values in features relevant to ϕ-agreement and for vocabulary items and allomorphy that make reference to different values in these features (i.e. + for one feature and − for another). This can account for the persistent syncretism in agreement between 1PL.EXC [+SPKR, −ADDR, +PL] and 2PL [−SPKR, +ADDR, +PL] to the exclusion of 1PL.INC [+SPKR, +ADDR, +PL]; 1PL.EXC and 2PL have different values for SPKR andADDR while 1PL.INC has positive values for both of them. One can also derive syncretism between 1SG [+SPKR, −ADDR, −PL] and 2SG [−SPKR, +ADDR, −PL] when needed for the same reason. The grammar must be able to reference this sort of disagreement, rather than just the matching of values. This provides support for Scott (2023)'s analysis of San Juan Atitán Mam "disagreement" enclitic and accounting for similar syncretisms with bivalent features and the referencing of feature disagreement.

Finally, in terms of **other operations in Distributed Morphology**, the existence of verbs where it is not possible to separately parse an Agr prefix and root like *Vma*/*VVm* 'come' indicates that one needs an operation like Obliteration (Arregi & Nevins 2007, 2012) that can remove null, featurally unmarked nodes from the structure, similar to "radical" Pruning (Embick 2010, 2015), to create the condition of strict adjacency under which Agr and the root can undergo Fusion into one node (Halle & Marantz 1993: 116). Alternatively under a Spanning approach (Svenonius 2012, Merchant 2015, Yuan 2021), vocabulary items needs to be able to target the whole verbal complex for insertion.

Uab Meto displays many common typological properties of allomorphy, like phonological selection to avoid phonotactic constraints like *CCC, as well as some less common ones, like causative suffixes grammatically conditioning allomorphy on structurally higher, non-linearly adjacent agreement prefixes. As always, Uab Meto makes the case for continuing to work with speakers of understudied languages, bring new data to the table, and use it both to understand the language at a deeper level and provide insights into broader theory.

Chapter 4

Syntactic variation in nominative alignment: Low nominative agreement in Uab Meto

4.1 Introduction and summary of the chapter

Among the diversity of verbal agreement systems in the world's languages, two of the most common are nominative agreement and absolutive agreement (Nichols 1992: 90-93, Corbett 2006: 56-57). In a language with nominative agreement like English, verbs preferentially agree with intransitive (353a) and transitive (353b) subjects. These arguments are often but not necessarily marked overtly with nominative case. On the other hand, in a language with absolutive agreement like Tsez (Nakh-Daghestanian: Russia), verbs preferentially agree with intransitive subjects (354a) and transitive objects (354b) (Polinsky & Potsdam 2002). These arguments are often but not necessarily marked overtly with absolutive case. These agreement patterns are differentiated by the argument with which a verb preferentially agrees in a transitive clause, either the higher subject or lower object. Agreement in all examples in the chapter is underlined.

(353) a. **He** leave-**s**.

b. **He** feed-**s** me.

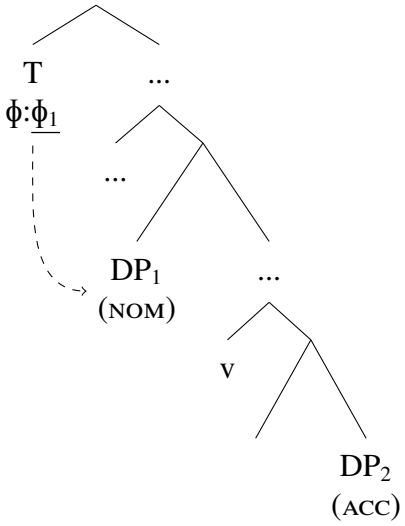
(354) a. **ziya** **b-**ik'i-s
COW.III.ABS III-GO-PAST.EVID
'The cow went.'
(Polinsky & Potsdam 2002: 247)

b. kid-bā **ziya** **b-**išer-si
girl.II-ERG COW.III.ABS III-feed-PAST.EVID
'The girl fed the cow.'
(Polinsky & Potsdam 2002: 247)

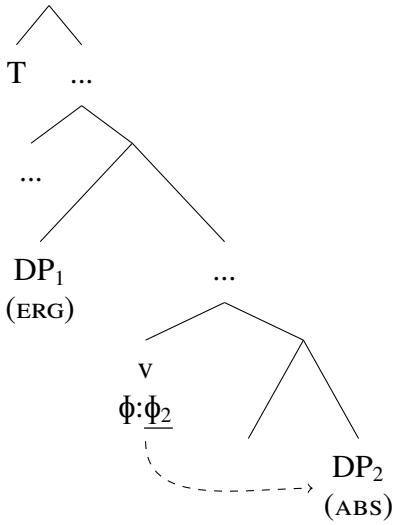
These preferences are thought to arise either from case discrimination or variation in the location of ϕ-probes. Nominative agreement arises from a ϕ-probe on T (355) (Woolford 2010, Legate 2014, Coon 2017b). Absolutive agreement arises from a low ϕ-probe on v (356) (Béjar & Rezac 2009), from a high ϕ-probe on T with case discrimination that cannot agree with ergative arguments (357) (Bobaljik 2008, Deal 2017), or from a a high ϕ-probe on T that agrees with an absolutive object shifted above the ergative subject (Coon, Baier & Levin 2021). Regardless of its location, the common principle is that a ϕ-probe agrees with the highest eligible argument in its c-command

domain (Chomsky 2000, Bobaljik 2008, Deal 2017), either exclusively or before looking up via a mechanism like cyclic Agree (Béjar & Rezac 2009).

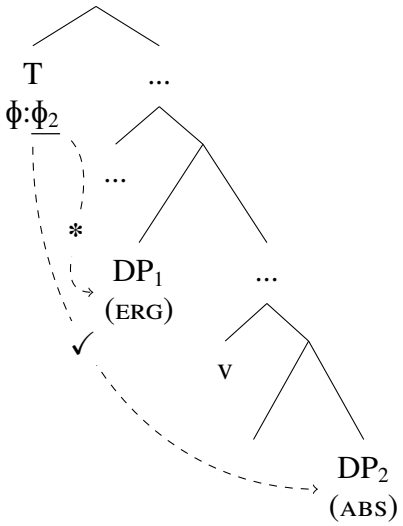
(355) Nominative agreement on T



(356) Absolutive agreement on v



(357) Absolutive agreement on T

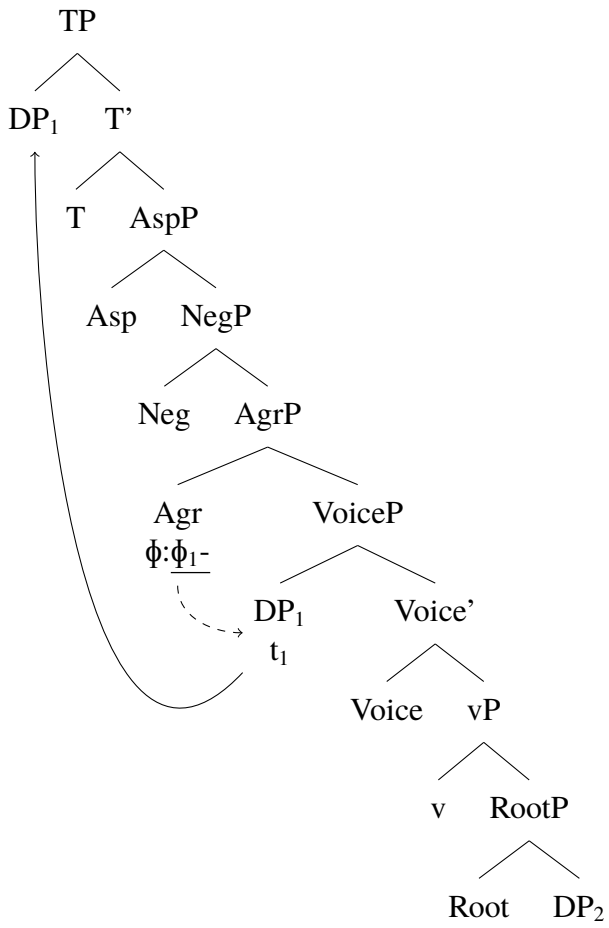


Importantly, it is commonly accepted that absolutive agreement has high and low variants, but nominative agreement (i.e. consistent agreement with the higher argument) is almost always assumed to result from a ϕ-probe on T. I argue that this need not be the case; the ϕ-probe may be lower while still maintaining a preference for agreement with subjects. This chapter provides an analysis of the verbal agreement system of Uab Meto. I will argue that Uab Meto has nominative agreement in which the ϕ-probe is on an Agr head below tense-aspect-mood (TAM) elements and negation and

immediately above Voice (358). Like absolutive agreement, then, nominative agreement also has high and low variants. Uab Meto thus fills a gap in our typology, being the first language to my knowledge reported to have nominative agreement, but in a low location. How Uab Meto fits into this typology of agreement alignment and ϕ-probe height is shown in (359). Languages described in Bobaljik (2008) and Coon, Baier & Levin (2021) as filling in the other cells are also provided.

In the remainder of this section I will provide a summary of the analysis of Uab Meto clause structure and agreement and a roadmap for the rest of the chapter. Notably, the Uab Meto data do not allow one to locate the ϕ-probe on a particular head in the clausal spine. This chapter will show that T, Asp, and Neg are higher than agreement, while Voice, v, and the root are lower. None of these heads actually host the ϕ-probe. Therefore, this chapter proposes that the ϕ-probe is located on an Agr head (Pollock 1989, Hsieh 2020, Yuan 2021). Agr selects a VoiceP complement and projects an AgrP. Just like a ϕ-probe on T, the ϕ-probe on Agr probes into its c-command domain and agrees with the closest DP, regardless of where it originates, yielding nominative agreement. A separate process moves this DP to Spec,TP, to the left of negation and TAM markers. This chapter will show that Uab Meto also has NOM-ACC alignment in its case marking. T presumably assigns nominative case to the highest DP and moves it to Spec,TP. One consequence of separating agreement and nominative case assignment onto different heads is that it is possible to agree with accusative DPs (509). Agreement, case assignment, and EPP properties do not always go hand in hand (Pesetsky & Torrego 2007, Hsieh 2020). The essentials of the analysis, namely the location of the ϕ-probe on an Agr head immediately above Voice, how it probes, and the movement of the highest DP to Spec,TP, are illustrated in (358). The solid arrow represents movement, while the dashed arrow represents agreement between a probe and a goal.

(358) Low nominative agreement on Agr



(359) Typology of NOM and ABS agreement with high and low ϕ-probes

	High	**Low**
NOM	English, French, German, Russian, ...	**Uab Meto**
ABS	Hindi, Tzez, K'iche', Q'anjob'al	Ch'ol, Tseltal

The rest of this chapter is organized as follows. **Section 4.2** discusses the reasons for analyzing agreement as being below TAM elements and negation in T, Asp, and Neg. Evidence for this primarily comes from the fact that these elements are not able to agree, but they also do not block agreement on lexical verbs. They are also not adjuncts, so intervention effects might be expected if agreement were on T. **Section 4.3** discusses the reasons for analyzing agreement as being above the root, v, and Voice. Uab Meto agreement exhibits a preference for agreeing with the highest DP in the clause, regardless of where it came from. If the valence of a verb is changed, then agreement targets whatever is the highest DP in the new structure, regardless of whether it is the same DP as before the change. This suggests that agreement is higher than the merge site of external arguments. **Section 4.4** puts the proposed analysis of Uab Meto agreement into a typological context. It discusses

why Uab Meto agreement should be considered true agreement and not a form of clitic doubling, why Uab Meto has typical down-probing subject agreement and not a form of inherent agreement between a head and its base-generated specifier, and why each verb needs to have its own Agr head and associated ϕ-probe. The relative lowness of the Uab Meto ϕ-probe and the divorcing of agreement and case assignment lead to some interesting properties: different verbs in the same clause can agree with different DPs, and non-initial and embedded verbs can agree with accusative DPs. **Section 4.5** concludes. This chapter is a significant expansion and revision of Lemon (2024a).

4.2 Agreement is below TAM and negation

The case and agreement patterns in (27)-(29) look quite typical of a language with NOM-ACC alignment. These examples are consistent with an analysis where T both assigns nominative case and handles subject agreement. The Uniformity Principle (Chomsky 2001) would thus place the ϕ-probe on T, but additional data suggest that it is lower. In fact, it is lower than negation and TAM elements in general. This section will establish the lowness of agreement in Uab Meto. Section 4.2.1 will show that negation markers and most TAM markers do not agree. Section 4.2.2 will show these elements do not block agreement on lexical verbs, even though they are in the clausal spine and would be expected to intervene if agreement were on T. To account for these facts, we must posit that agreement is below TAM and negation.

4.2.1 No agreement for negation and (most) TAM auxiliaries

Agreement only occurs on lexical verbs, never on auxiliaries. Verb agreement occurs even in the presence of TAM markers and negation: the future tense marker *lof* (360a), modals like *bisa* 'can' (360b) and *lo* 'must' (360c), the negator *ka=...=f(a)* (360d), and other auxiliaries like the irrealis marker *he* (360e) and inceptive aspect marker *=en*[1] (360f)[2].

(360) a. Atóin'=ini ok∼oke' lof **na-tika**=n *bool*.
man=PL.DEF all.RED∼all FUT 3-heel=PL ball
'All the boys will play soccer.' (YEK; AOZ2019-WORDLIST001, line 277)

b. N-aka=m a hoo ***bisa*** **m-**éék *oto*? Au ***bisa*** **'-**éék *oto*.
3-say=and Q 2SG.NOM can 2SG-bring car 1SG.NOM can 1SG-bring car
'He said, "Can you drive a car?" (I replied) "I can drive a car."'
(LTK; AOZ2019-MON011, line 188)

c. Hai **lo** **m-***'urus* na-'koo le' lóé pleent=e.
1PL.EXC.NOM must 1PL.EXC-organize 3-from REL money government=DEF

[1] *=en* shows the same allomorphy as 3SG.ACC *=e*, with the added complication that *=en* takes the *=ben* form when attaching to other enclitics, regardless of their final segment.

[2] The examples in (360) are mostly naturalistic. Examples (360a) and (360d) from YEK in the recording AOZ2019-WORDLIST001 were translated, but without any particular direction or prompting.

‘We have to organize it from the government money.’
(YAF; AOZ2019-MON004, lines 173-174)

d. Hai **ka=** **m-**lóóm=je **=fa**.
1PL.EXC.NOM NEG= 1PL.EXC-like=3SG.ACC =NEG
‘We don’t like him/her.’ (YEK; AOZ2019-WORDLIST001, lines 271-272)

e. Hai **he** m-nao **he** m-méóp m-óé Bokin nae.
1PL.EXC.NOM IRR 1PL.EXC-go IRR 1PL.EXC-work 1PL.EXC-to Boking DEM.DIST
‘We wanted to go work in Boking there.’ (LTK; AOZ2019-MON011, line 218)

f. Mi-lali=te es∼esa=te **n-**faan**=jen** on iin ume.
1PL.EXC-finish=SET one.RED∼one=SET 3-return=INCP IRR.LOC 3SG.NOM house
‘When we finished, everyone returned home.’ (YEK; AOZ2019-MON002, lines 85-86)

Uab Meto and English both have non-affixal TAM and negation markers (though some Uab Meto ones are clitics). A correlate of this is that lexical verbs do not undergo head movement to T, Asp, or Neg (Legate 2014). English agreement originates on T, so the presence of these elements blocks agreement from lowering onto lexical Vs (361) (Chomsky 1957, Pollock 1989). Uab Meto Agr is lower than these elements, so no intervention effects are observed.

(361) a. He {will/can/must} play(*-s) soccer. b. He does not like(*-s) me.

In fact, the Uab Meto TAM and negation markers do not behave uniformly with regards to agreement. For most of these elements, agreement is impossible. This group includes future *lof* (362a), irrealis *he* (362b), *lo* ‘must’ (362c), inceptive *=en* (362d), and negative *ka=...=fa* (362e). For *bisa* ‘can’, agreement is optional (362f), though relatively uncommon. I attribute this difference to *bisa* being a loanword verb and the other mentioned markers being higher TAM heads.

(362) a. Hoo (***m-**)lof|a m-soos *buku*.
2SG.NOM (*2SG-)FUT|EPEN 2SG-buy book
‘You will buy a book.’ (YEK/NSK; elic. Aug. 18, 2021)

b. Hoo (***m-**)he m-soos *buku*.
2SG.NOM (*2SG-)IRR 2SG-buy book
‘You want to buy a book.’ (YEK/NSK; elic. Aug. 18, 2021)

c. Hoo (***m-**)lo m-soos *buku*.
2SG.NOM (*2SG-)must 2SG-buy book
‘You must buy a book.’ (YEK/NSK; elic. Aug. 18, 2021)

d. Hai m-nao=(***m-**)ben. *m-nao=**m-**en
1PL.EXC.NOM 1PL.EXC-go=(*1PL.EXC-)INCP
‘We are starting to go.’ (YEK/NSK; elic. Sep. 29, 2021)[3]

[3]Agreement is impossible both with the inceptive allomorph *=ben* that is expected attaching to the /ɔ/-final verb *nao* ‘go’ and with the default allomorph *=en*, which is used when the preceding segment is underlyingly /a/ or a consonant.

e. Hoo (***m-**)ka= m-bukae =(***m-**)fa siis fafi.
2SG.NOM (*2SG-)NEG= 2SG-eat =(*2SG-)NEG meat pig
'You do not eat pork.' (YEK/NSK; elic. Nov. 10, 2021)

f. Hoo (**m-**)*bisa* m-soos *buku*.
2SG.NOM (2SG-)can 2SG-buy book
'You can buy a book.' (YEK/NSK; elic. Aug. 18, 2021)

For example, this difference in agreement among TAM elements is correlated with a difference in position relative to negation. Negation in Uab Meto consists of an obligatory pro-clitic *ka=* and optional enclitic *=fa* that surround the verb and any object pronouns (360d, 363a-b). I assume that *ka=* and *=fa* mark the left and right edge of NegP. Under this assumption, elements between *ka=* and *=fa* are "inside" negation, i.e. they are below NegP. Subjects, non-pronominal objects (363c-d), and non-verbal TAM elements are "outside" of negation, i.e. above NegP[4].

(363) a. Au **ka=** '-aem koo **=fa**.
1SG.NOM NEG= 1SG-look.for 2SG.ACC =NEG
'I am not looking for you.' (YEK; elic. Dec. 8, 2021)

b. * Au **ka=** '-aem **=fa** koo.
1SG.NOM NEG= 1SG-look.for =NEG 2SG.ACC
Intended: 'I am not looking for you.' (YEK/NSK; elic. Dec. 8, 2021)

c. * Au **ka=** '-aem fafi **=fa**.
1SG.NOM NEG= 1SG-look.for pig =NEG
Intended: 'I am not looking for a pig.' (YEK/NSK; elic. Dec. 8, 2021)

d. Au **ka=** '-aem **=fa** fafi.
1SG.NOM NEG= 1SG-look.for =NEG pig
'I am not looking for a pig.' (YEK/NSK; elic. Dec. 8, 2021)

Notably, TAM elements that occur outside of negation do not agree, while those that occur inside of negation do agree, at least optionally like *bisa* 'can'. Future *lof* (364a-b), irrealis *he* (364c-d), *lo* 'must' (364e-f), and inceptive *=en* (364g-h) occur outside of negation. I analyze *lof*, *he*, and *lo* as T heads and *=en* as an Asp head.

(364) a. Hoo **lof ka=** m-soos **=fa** *buku*.
2SG.NOM FUT NEG= 2SG-buy =NEG book
'You will not buy a book.' (YEK/NSK; elic. Aug. 11, 2021)

b. * Hoo **ka= lof**|a m-soos **=fa** *buku*.
2SG.NOM NEG= FUT|EPEN 2SG-buy =NEG book
Intended: 'You will not buy a book.' (YEK/NSK; elic. Aug. 11, 2021)

[4]I assume that non-pronominal objects right-dislocate to a position higher than NegP, while the non-verbal TAM elements are base-generated higher than NegP.

c. Hoo **he ka=** m-soos **=fa** *buku*.
2SG.NOM IRR NEG= 2SG-buy =NEG book
'You don't want to buy a book.' (YEK/NSK; elic. Sep. 8, 2021)

d. * Hoo **ka= he** m-soos **=fa** *buku*.
2SG.NOM NEG= IRR 2SG-buy =NEG book
Intended: 'You don't want to buy a book.' (YEK/NSK; elic. Sep. 8, 2021)

e. Hoo **lo ka=** m-soos **=fa** *buku*.
2SG.NOM must NEG= 2SG-buy =NEG book
'You must not buy a book.' (YEK/NSK; elic. Sep. 8, 2021)

f. * Hoo **ka= lo** m-soos **=fa** *buku*.
2SG.NOM NEG= must 2SG-buy =NEG book
Intended: 'You must not buy a book.' (YEK/NSK; elic. Sep. 8, 2021)

g. Hai **ka=** m-nao **=fa=ben**.
1PL.EXC.NOM NEG= 1PL.EXC-go =NEG=INCP
'We are not going.' / 'We are starting to not go.' (YEK/NSK; elic. Jul. 28, 2021)

h. * Hai **ka=** m-nao **=ben=fa**.
1PL.EXC.NOM NEG= 1PL.EXC-go =INCP=NEG
Intended: 'We are not going.' / 'We are starting to not go.'
(YEK/NSK; elic. Jul. 28, 2021)

On the other hand, *bisa* 'can' occurs inside of negation (365). There is some dialectal variation with regards to the placement of the second negator *=fa*, either after the first verb (365a) or after all the verbs (365b). There is also dialectal variation with regards to the commonality of choosing to show agreement on *bisa*, but speakers agree that *bisa* comes after the first negator *ka=* (365c).

(365) a. Hoo **ka= *bisa* =fa** m-soos *buku*.
2SG.NOM NEG= can =NEG 2SG-buy book
'You cannot buy a book.' (YEK; elic. Aug. 11, 2021)

b. Hoo **ka= m-*bisa*** m-soos **=fa** *buku*.
2SG.NOM NEG= 2SG-can 2SG-buy =NEG book
'You cannot buy a book.' (NSK; elic. Aug. 11, 2021)

c. * Hoo ***bisa* ka=** m-soos **=fa** *buku*.
2SG.NOM can NEG= 2SG-buy =NEG book
Intended: 'You cannot buy a book' (YEK/NSK; elic. Aug. 11, 2021)

Crucially, the one TAM element that we have seen so far that optionally agrees, *bisa* 'can', occurs inside of negation, a trait shared with lexical verbs. In fact, *bisa* can be analyzed as a verb. The optionality of agreement with *bisa* may be related to the fact that it is a loanword from Malay/Indonesian, where it has been analyzed as a verb (Arka 2013), or as a modal auxiliary below T and Asp (Fortin 2019). There is no overt ϕ-agreement in Malay/Indonesian, and most Uab Meto speakers are bilingual between these languages, so one could say that the agreeing version of *bisa* is a verb root that

has been assimilated into Uab Meto, while the non-agreeing version is unassimilated. Otherwise, their syntax is identical. Notably, other native and/or more assimilated modal verbs that occur inside of negation, like *bei'/be'i* 'be strong' or 'be capable' and *palu* 'need' (366), require agreement (367). These can all be analyzed as verb roots.

(366) a. Hoo **ka= mu-bei' =fa** m-soos *buku*.
2SG.NOM NEG= 2SG-strong =NEG 2SG-buy book
'You are not capable of buying a book.' (YEK; elic. Aug. 11, 2021)

b. Hoo **ka= m-palu =fa** he m-soos *buku*.
2SG.NOM NEG= 2SG-need =NEG IRR 2SG-buy book
'You do not need to buy a book.' (YEK/NSK; elic. Sep. 8, 2021)

(367) a. Au *(**'-**)palu '-soos *buku*.
1SG.NOM *(1SG-)need 1SG-buy book
'I need to buy a book.' (YEK/NSK; elic. Sep. 29, 2021)

b. Au 'u-sae-b fatu *(**'u-**)bei'.
1SG.NOM 1SG-rise-CAUS stone *(1SG-)strong
'I am capable of lifting stones.' (YEK/NSK; elic. Sep. 29, 2021)

Placement relative to negation and agreement are two traits that distinguish verbs from higher TAM elements. As stated above, I assume that *ka=* marks the left edge of NegP, and *=fa* marks the right edge. From this it follows that verbs occur inside NegP, while T and Asp heads occur outside of it.

The word and morpheme ordering facts discussed in this subsection are summarized in the clausal template in (368). The internal structure of the Agr-Voice-Root-v verbal complex will not be discussed until section 4.3 and is also discussed extensively in chapter 2, but it is included here for the sake of completeness. That Asp occurs after non-pronominal DP objects is shown by examples like (369).

(368) DP_{Sub} T Neg= Agr-Voice-Root-v $DP_{Obj.Pro}$ =Neg $DP_{Obj.NonPro}$ =Asp

(369) a. Au ka= '-aem =fa **fafi=ben**.
1SG.NOM NEG= 1SG-look.for =NEG pig=INCP
'I am not looking for a pig anymore.' (YEK; elic. Dec. 15, 2021)

b. * Au ka= '-aem =fa**=ben** **fafi**.
1SG.NOM NEG= 1SG-look.for =NEG=INCP pig
Intended: 'I am not looking for a pig anymore.' (YEK; elic. Dec. 15, 2021)

In summary, T, Asp, and Neg heads do not show agreement, and they do not block agreement on lexical verbs. *bisa* 'can' is exceptional in showing optional agreement, but it remains that case that all verbs below negation agree, while higher heads do not agree. If agreement were on T, as is typical in nominative agreement, we would expect to see intervention effects (as in English) and agreement on higher TAM elements in T and Asp.

4.2.2 Auxiliaries are not adjuncts; they are in the clausal spine

The data presented so far make it clear that negation and non-verbal TAM markers do not agree, while the markers that do agree pattern like lexical verbs syntactically. Granting this, one might still object that all the non-agreeing TAM markers are just adverbial elements or some other type of adjunct that would not be expected to interfere with agreement, like English *quickly* (370a) or *still* (370b). This subsection will show that these TAM markers act like heads in the clausal spine and not like adjuncts. Properties that show these elements to be heads include: **1.** the licensing of ellipsis (verbal auxiliaries only), **2.** rigid linear placement in the clause, and **3.** the necessity of including these heads in an answer when an antecedent question contains them. As heads, these elements would be expected to block agreement from lowering onto verbs if agreement originated in a high position like T (Chomsky 1957, Pollock 1989). The fact that they do not interfere with verbal agreement provides evidence that agreement is below them.

(370) a. He quickly sing*(-s). b. He still sing*(-s).

To start, one way to contrast adjuncts and clausal-spine auxiliaries in English is that adjuncts do not license VP ellipsis (371a), but auxiliaries (371b) and negation do.

(371) a. Q: Does he still sing?
* A: He still.

b. Q: Can he sing?
A: He can.

Uab Meto partially displays the same pattern. For example, the verbal auxiliaries *bisa* 'can' and *palu* 'need' (372a-b) and negation (372c) license ellipsis of lexical VPs, but adjuncts like *fe'* 'still' do not (372d). The examples below provide a full-sentence question for context and a response where either the object DP or the lexical VP that contains it has been elided. Here "lexical VP" means a syntactic AgrP including Agr, Voice, v, the root, and any DP objects.

(372) a. Iin ***bisa*** na-hana 'maka' ka?
3SG.NOM can 3-cook rice NEG
'Can he cook rice?'
Iin ***bisa*** (na-haan).
3SG.NOM can (3-cook)
'He can (cook).'
(YEK/NSK; elic. Oct. 6, 2021)

b. Hoo **m-palu** m-soos *buku* ka?
2SG.NOM 2SG-need 2SG-buy book NEG
'Do you need to buy a book?'
Au **'-palu** ('-soos).
1SG.NOM 1SG-need (1SG-buy)
'I do need (to buy one).'
(YEK/NSK; elic. Oct. 6, 2021)

c. Hoo m-soos sisi ka?
2SG.NOM 2SG-buy meat NEG
'Did you buy meat?'
Au **ka=** ('-soos) **=fa**.
1SG.NOM NEG= (1SG-buy) =NEG
'I did not (buy any).'
(YEK; elic. Nov. 3, 2021)

d. Iin **fe'** na-hana 'maka' ka?
3SG.NOM still 3-cook rice NEG
'Is he still cooking rice?'
Iin **fe'** *(na-haan).
3SG.NOM still *(3-cook)
'He still *(is cooking).'
(YEK; elic. Jan. 12, 2021)

Lexical verb roots also license ellipsis. In this case, they license ellipsis of their DP complements. This is shown in many of the examples in (372) and (374), and it is shown more directly in (373).

(373) Hoo **m-soos** fafi ka?
2SG.NOM 2SG-buy pig NEG
'Did you buy a pig?'
Au **'-soos**.
1SG.NOM 1SG-buy
'I did buy (one).' (YEK; elic. Oct. 7, 2021)

By contrast, the higher auxiliaries, namely future *lof*, irrealis *he* (374a), *lo* 'must', and inceptive *=en* (374b), do not license ellipsis.

(374) a. Hoo **he** mu-a 'maka' ka?
2SG.NOM IRR 2SG-eat rice NEG
'Do you want to eat rice?'
Au **he** *('u-ah).
1SG.NOM IRR *(1SG-eat)
'I want to *(eat some).'
(YEK/NSK; elic. Sep. 29, 2021)

b. Hoo m-nao**=ben** ka?
2SG.NOM 2SG-go=INCP NEG
'Are you starting to go?'
Au *('-nao)**=ben**.
1SG.NOM *(1SG-go)=INCP
'I am starting *(to go).'
(YEK/NSK; elic. Oct. 6, 2021)

The data in (372)-(374) are a modified version of the "predicator test" developed by Noss (1964) and used extensively in Visonyanggoon (2000) for Thai ellipsis data. In Thai, a predicator is a word that can stand alone in a response to a yes-no question. Thai predicators are verbs, and only the highest verb can be the predicator (375a). In these examples the subject is presumably a null pronoun, and in each case, the complement of the predicator has been elided. If there are two verbs, the embedded VP elides (375a). If there is only one verb, the object DP elides (375b).

(375) a. khaw$_5$ yaak$_2$?aan$_2$ naŋ$_5$sɨɨ$_5$ may$_4$
he want read book Q.PRT
'Does he want to read?'
✓ yaak$_2$
want
'Yes, he wants to read.'
* ?aan$_2$
read (Visonyanggoon 2000: 118)

b. khaw$_5$?aan$_2$ naŋ$_5$sɨɨ$_5$ may$_4$
he read book Q.PRT
'Does/Did he read?'
✓ ?aan$_2$
read
'Yes, he read(s).'
(Visonyanggoon 2000: 117)

Visonyanggoon (2000) accounts for the fact that only the highest verb can be the restrictor in Thai by positing that V heads themselves do not actually license ellipsis. Instead, there is an ellipsis-licensing head Σ that sits above VP, head-moves the closest V head in its c-command domain to it, and elides the VP remnant. There is only one Σ per clause, so only the highest VP (i.e. the complement of Σ) can be elided. Since the highest V undergoes head movement to Σ before elision applies, this gives the surface appearance that only the complement of the highest V is elided.

Uab Meto has distinct ellipsis licensing conditions from Thai. In Uab Meto, both Neg and Root heads license ellipsis of their complements, and that complement can be a VP (broadly construed as including Agr, Voice, v, a root, and any objects) or a DP (372-373). T and Asp heads do not license ellipsis (374). One could further generalize this by making reference to the hierarchy of the clausal spine: Neg and the heads below it license ellipsis, but the heads above Neg do not[5] (cf. Fortin (2019) on Indonesian, where T and heads below T license ellipsis, but heads above T do not). In addition, if there are two ellipsis licensers in a clause, like the two (verb) Root heads in (372a-b), or the Neg head and Root head in (372c), you can choose to elide the complement of either. This suggests that unlike in Thai, there is not a singular Σ head in Uab Meto clauses that attracts a head and elides the remaining complement. Instead, one can analyze Uab Meto ellipsis as being an inherent ability of Neg and Root heads. This sort of analysis of ellipsis, lacking dedicated ellipsis heads, is closer to the analysis of Merchant (2008, 2013), where different heads in the clause may have an E(llipsis) feature on them, allowing them to elide their complements if the complement has a viable antecedent.

Despite some differences in the exact formal implementation, a crucial assumption shared by all these accounts of ellipsis (Visonyanggoon 2000, Merchant 2008, 2013, Fortin 2019) is that heads license ellipsis of their complements, and this is the only way to license ellipsis. We saw above that negative *ka=...=f(a)* and modal verbs like *bisa* 'can' and *palu* 'need', can license ellipsis of lexical VPs. If these heads are capable of licensing ellipsis of lexical VPs, then these lexical VPs must be their complements. If these heads are taking lexical VPs as their complements, then these heads must be in the clausal spine, and they must be structurally higher than their lexical-VP complements. Importantly, as noted above, the complements of these modal verbs and Neg contain the full verbal complex of Agr, Voice, v, and a root. Therefore, Agr is contained in the complement of these elements, and thus Agr is lower than these elements. This line of reasoning suggests a partial structure for the Uab Meto clause as shown in (376). Only the heads below Neg are shown, and no head movement to Agr is depicted. (376a) depicts the structure of a negated sentence without

[5]One caveat is that Asp is an area of uncertainty. Inceptive *=en* is the only Asp head of which I am aware. The ability of *=en* to co-occur with the irrealis marker (1a) and its placement post-verbally rather than pre-verbally show that these these elements should be placed in different syntactic positions. However, the fact that *=en* is an enclitic creates morphophonemic complications. *=en* might not license ellipsis purely because it needs to attach to something, either a VP (1b-c) or the negator *=fa* (1d), itself an enclitic.

(1) a. Hai **he** m-nao**=ben**.
1PL.EXC.NOM IRR 1PL.EXC-go=INCP
'We want to go.'
(YEK/NSK; elic. Jul. 28, 2021)

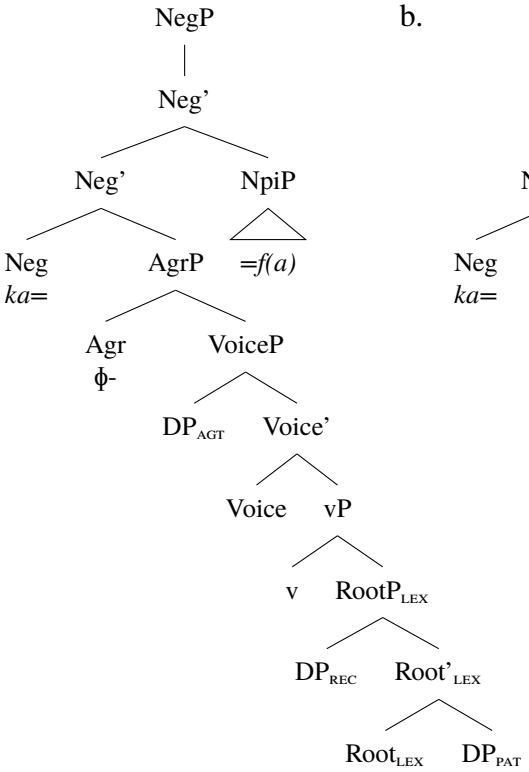
b. fun 'u-kua' '-aan=je**=ben**=ate
because 1SG-drop 1SG-finish=3SG.ACC=INCP=SET
'because I dropped it'
(AMF; AOZ2019-INS001, line 41)

c. Au '-poo**=jen** ka= '-méóp =fa '-ook le' kase nane**=ben**.
1SG.NOM 1SG-go.out=INCP NEG= 1SG-work =NEG 1SG-with REL boss DEM.DIST=INCP
'I exited and no longer worked for the boss.' (LTK; AOZ2019-MON011, line 136)

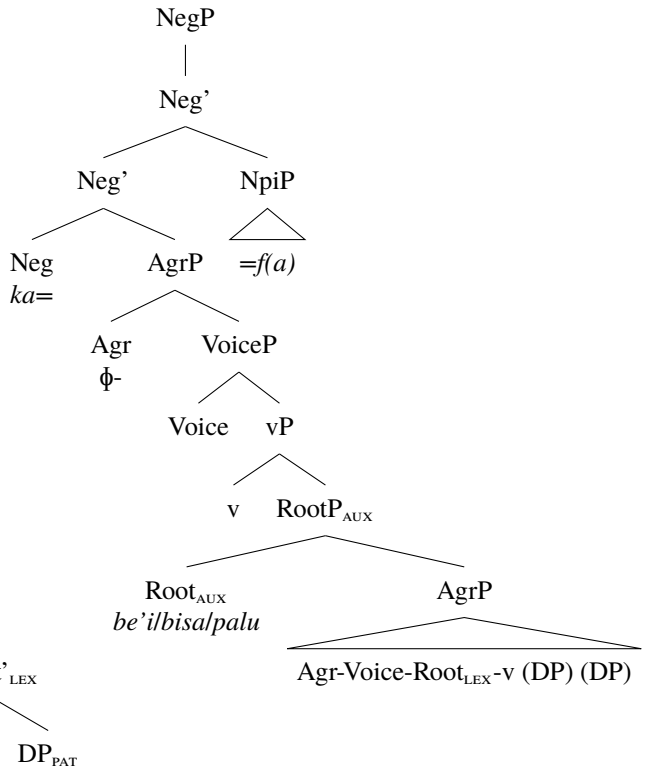
d. Hai he ka= m-nao **=fa=ben**.
1PL.EXC.NOM IRR NEG= 1PL.EXC-go =NEG=INCP
'We don't want to go.' (YEK/NSK; elic. Jul. 28, 2021)

an auxiliary verb, like (363d). (376b) shows the structure of a negated sentence with an auxiliary verb that takes a lexical VP (technically an AgrP) as its complement, like (365b).

(376) a.



b.



Ellipsis licensing establishes that negation and modal verbs are in the clausal spine, but we need to find another test to establish that the higher TAM elements are heads in the clausal spine. One such test is inflexibility of placement. In this case, the higher auxiliaries and modal verbs behave alike in their rigid linear placement, in contrast to more flexible adjuncts. For example, when *bisa* 'can' co-occurs with a verb, it always occurs pre-verbally (377).

(377) a. Hoo ***bisa*** m-éék *oto*.
2SG.NOM can 2SG-bring car
'You can drive a car.'
(YEK; elic. May 19, 2021)

b. * Hoo m-éék ***bisa*** *oto*.
2SG.NOM 2SG-bring can car
Intended: 'You can drive a car.'
(YEK; elic. May 19, 2021)

c. * Hoo m-éék *oto* **bisa**.
2SG.NOM 2SG-bring car can
Intended: 'You can drive a car.'
(YEK; elic. May 19, 2021)[6]

As examples of higher auxiliaries in T, future *lof* (378a-b) and irrealis *he* (378c-d) are restricted to pre-verbal position, either immediately pre-verbal as shown below or before negation (364a-d).

[6]YEK reports that this ordering is grammatical as a question ('Can you drive a car?'), but not as a declarative.

(378) a. Au **lof**|a ’-soos *buku*.
1SG.NOM FUT|EPEN 1SG-buy book
‘I will buy a book.’
(YEK/NSK; elic. Aug. 25, 2021)

b. * Au ’-soos *buku* **lof**.
1SG.NOM 1SG-buy book FUT
Intended: ‘I will buy a book.’
(YEK/NSK; elic. Aug. 25, 2021)

c. Au **he** ’-soos *buku*.
1SG.NOM IRR 1SG-buy book
‘I want to buy a book.’
(YEK/NSK; elic. Aug. 25, 2021)

d. * Au ’-soos *buku* **he**.
1SG.NOM 1SG-buy book IRR
Intended: ‘I want to buy a book.’
(YEK/NSK; elic. Aug. 25, 2021)

The inceptive Asp head *=en* must occur outside of negation (379a-b) and after DP objects (379c-d) (also see 369). Thus, *=en* must attach either to the right edge of NegP if present or to the right edge of VP (technically an AgrP).

(379) a. Hai **ka=** m-nao **=fa=ben**.
1PL.EXC.NOM NEG= 1PL.EXC-go =NEG=INCP
‘We are not going.’ / ‘We are starting to not go.’ (YEK/NSK; elic. Jul. 28, 2021)

b. * Hai **ka=** m-nao **=ben=fa**.
1PL.EXC.NOM NEG= 1PL.EXC-go =INCP=NEG
Intended: ‘We are not going.’ / ‘We are starting to not go.’
(YEK/NSK; elic. Jul. 28, 2021)

c. Ina n-soos faaf=je**=ben**.
3SG.NOM 3-buy pig=DEF=INCP
‘He/She has bought the pig.’ (YEK; elic. Oct. 7, 2021)

d. * Ina n-soos**=en** faaf=je.
3SG.NOM 3-buy=INCP pig=DEF
‘He/She has bought the pig.’ (YEK; elic. Oct. 7, 2021)

The TAM markers contrast with adjuncts like *fe’* ‘still’ (380) and *labah* ‘quickly’ (381). These are more flexible in their placement, occurring before or after verbs.

(380) a. Toob=e es ii=je, iin **fe’**|a n-ma∼ma’muu’.
people=DEF IPFV.LOC DEM.PROX=DEF 3SG.NOM still|EPEN 3-poor.RED∼poor
‘The people here, they are still poor.’ (YAF; AOZ2019-MON004, line 152)

b. Au **fe’** ka= ’-éék *desa* ...
1SG.NOM still NEG= 1SG-bring village ...
‘When I had not yet become the village head...’ (YAF; AOZ2019-MON004, line 13)

c. Au ’-fee ’-mépu ’-tahan **fe’**.
1SG.NOM 1SG-give 1SG-work 1SG-endure still
‘I continued working.’ (LTK; AOZ2019-MON011, line 161)

(381) a. Hoo **labah** óóm m-eu kau.
2SG.NOM quickly 2SG.come 2SG-to 1SG.ACC
'You quickly come to me.' (YEK/NSK; elic. Sep. 8, 2021)

b. Hoo óóm **labah** m-eu kau.
2SG.NOM 2SG.come quickly 2SG-to 1SG.ACC
'You come quickly to me.' (YEK/NSK; elic. Sep. 8, 2021)

c. * Hoo óóm m-eu **labah** kau.
2SG.NOM 2SG.come 2SG-to quickly 1SG.ACC
Literally: 'You come to quickly me.' (YEK/NSK; elic. Sep. 8, 2021)

d. Hoo óóm m-eu kau **labah**.
2SG.NOM 2SG.come 2SG-to 1SG.ACC quickly
'You come to me quickly.' (YEK/NSK; elic. Sep. 8, 2021)

Another test where all the TAM markers pattern together is that they must remain in responsive ellipsis. This test is also a diagnostic for being a head in the clausal spine applied extensively in Visonyanggoon (2000). Here the question is not whether a particular TAM marker can license ellipsis, but whether it must remain in an answer if it was included in the antecedent question. If a question contains only a lexical verb and no TAM markers, then a response with the same verb is sufficient, though the object can be elided (373). Interestingly, if there are any TAM markers in the question, these must also be included in the response, regardless of whether the marker is verbal (382) or non-verbal (383). This indicates that the various TAM markers are heads in the clausal spine, not adjuncts.

(382) a. Iin ***bisa*** na-hana 'maka' ka?
3SG.NOM can 3-cook rice NEG
'Can he cook rice?'
Iin *(***bisa***) na-haan.
3SG.NOM *(can) (3-cook)
'He *(can) cook.'
(YEK/NSK; elic. Oct. 6, 2021)

b. Hoo **m-palu** m-soos *buku* ka?
2SG.NOM 2SG-need 2SG-buy book NEG
'Do you need to buy a book?'
Au *(**'-palu**) '-soos.
1SG.NOM *(1SG-need) 1SG-buy
'I *(need to) buy one.'
(YEK/NSK; elic. Oct. 6, 2021)

(383) a. Hoo **lof|a** m-soos *buku* ka?
2SG.NOM FUT|EPEN 2SG-buy book NEG
'Will you buy a book?'
Au *(**lof**|a) '-soos.
1SG.NOM *(FUT|EPEN) 1SG-buy
'I *(will) buy one.'
(YEK/NSK; elic. Sep. 29, 2021)

b. Hoo **he** mu-a 'maka' ka?
2SG.NOM IRR 2SG-eat rice NEG
'Do you want to eat rice?'
Au *(**he**) 'u-ah.
1SG.NOM *(IRR) 1SG-eat
'I *(want to) eat some.'
(YEK/NSK; elic. Sep. 29, 2021)

c. Hoo m-soos faaf**=jen** ka?
2SG.NOM 2SG-buy pig=INCP NEG
'Have you bought a pig?'
Au '-soos*(**=en**).
1SG.NOM 1SG-buy*(=INCP)
'I *(have) bought one.'
(YEK; elic. Oct. 7, 2021)

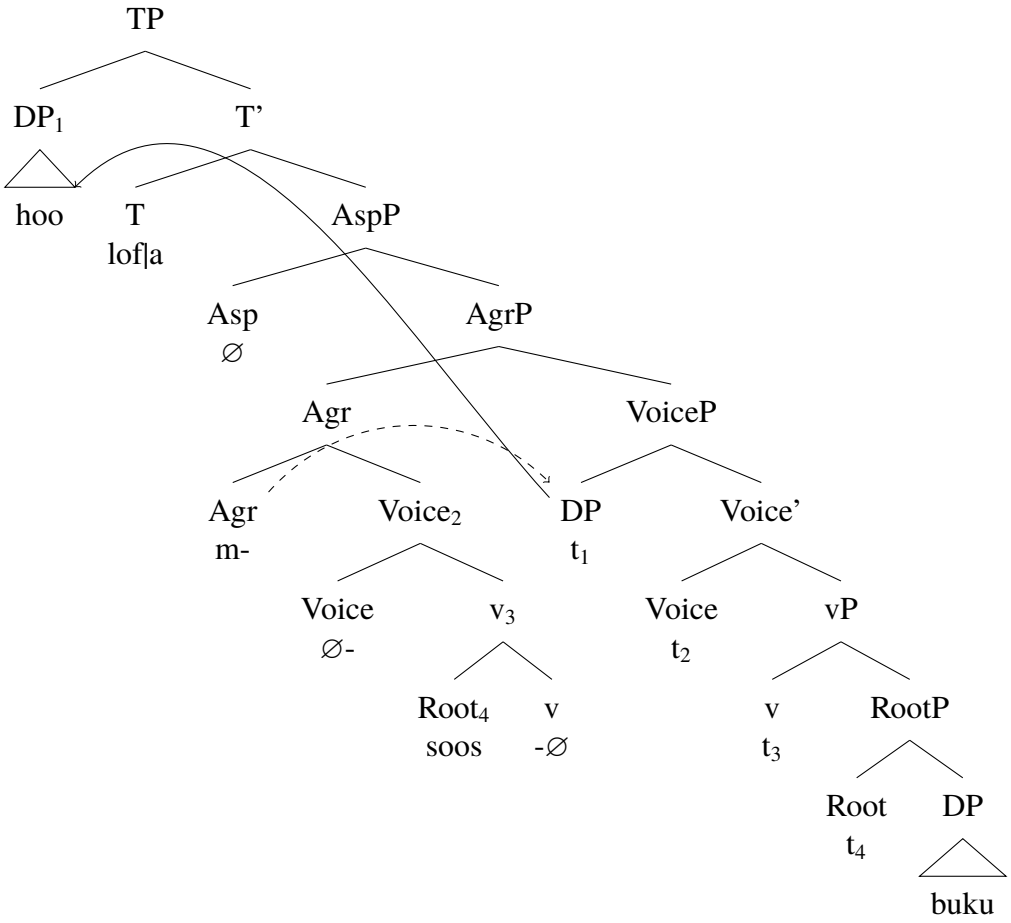
By contrast, the temporal modifier *afi* 'yesterday', a presumed adjunct, does not need to be repeated in an answer (384).

(384) **Afi** hoo m-nao m-bii 'pasa'?
yesterday 2SG.NOM 2SG-go 2SG-RLS.LOC market
'Did you go to the market yesterday?
Au '-nao.
1SG.NOM 1SG-go
'I went.' (YEK; elic. Oct. 6, 2021)

We can attribute this pattern to certain syntactic projections and their associated heads being present obligatorily in the clausal spine structure. Adjuncts are characteristically optional, but functional heads like T, Asp, Voice, v, etc. are always present, even if silent, and particular lexical items in these functional categories are used when the semantics calls for them. If the sentence has future tense semantically, the future T head *lof* should be used. If the sentence is irrealis semantically, the irrealis T head *he* should be used. If the sentence is inceptive semantically, the inceptive Asp head *=en* should be used, and so on. In responsive ellipsis, the TAM semantics of the question and response are identical. Therefore, these heads are present in the structure in both question and response, and they must be pronounced.

To illustrate the analysis, a tree is provided in (385). This tree shows the structure of (362a), which includes the overt T head *lof* and an epenthetic [a] to break up the underlying CCC sequence. This tree shows head movement of the root, v, and Voice to Agr to form the verbal complex, agreement with the external argument by Agr (dashed arrow), and independent movement of the external argument from Spec,VoiceP to Spec,TP (solid arrow).

(385)



4.2.3 Section summary and conclusion

In this section we have seen that higher, non-verbal TAM markers and negation in Uab Meto do not agree. This group includes *lof* (FUT), *he* (IRR), *lo* 'must', and *=en* (INCP) and *ka=...=fa* (NEG) (362a-e). If agreement were on T, as is typical in nominative agreement, we would expect to see intervention effects (as in English) and agreement on at least some of these non-verbal TAM markers, contrary to fact. These markers are T, Asp, and Neg heads, and the fact that they do not show agreement and do not block agreement on lexical verbs suggests that agreement is below them.

Relatedly, we have also seen evidence that all the TAM markers are in the clausal spine. They have inflexible linear placement, and they cannot undergo responsive ellipsis; all these markers must remain in answers to questions that contain them. They are not adjuncts, and therefore intervention effects would be expected if agreement is on T.

Furthermore, we have seen that the lower, verbal TAM markers, namely the agreeing modal verbs *bisa* 'can', *palu* 'need', and *be'i/bei'* 'be capable', also do not prevent agreement on lexical verbs (362f, 367). The fact that these modal verbs and negation license ellipsis of lexical VPs (372a-c) indicates that these elements are in the clausal spine, take lexical VPs as complements,

and are higher than these VPs and the agreement within them.

Lastly, we have seen that modal verbs occur inside negation, unlike the non-verbal TAM markers, which occur outside of it (364). Assuming that the first negative marker *ka=* marks the left edge of NegP, if agreement can be shown to be lower than the modal verbs, then we have another argument that agreement is also lower than negation and the other TAM makers outside of negation.

4.3 Agreement is above the root, v, and Voice

So far we have seen that Uab Meto has consistent subject agreement, but despite this, agreement is lower than non-verbal TAM markers and negation. Consistent subject agreement is usually thought to result from a ϕ-probe on T (Woolford 2010, Legate 2014, Coon 2017b), but forms of agreement that show different alignment have been analyzed with lower ϕ-probes. For example, absolutive (i.e. object) preference is often thought to arise from a ϕ-probe on v (Béjar & Rezac 2009), and inherent agreement with external arguments has been argued to arise from ϕ-probes on v (Coon 2017b) or Voice (Legate 2014). Could one somehow locate the ϕ-probe on v or Voice in Uab Meto? There are several arguments against this analysis, and they will show that agreement is above the root, v, and Voice.

The simple fact that agreement is subject-aligned argues against the probe being on v or Voice. This subject preference holds for presumed unaccusative (386a), unergative (386b), monotransitive (387), and ditransitive verbs (388).

(386) a. **Ina** **n-**móóf.
3SG.NOM 3-fall
'He/she falls.' (Steinhauer 1993: 135)

b. **Iin** **n-**aen.
3SG.NOM 3-run
'He/she ran.' (Arka 2001: 1)

(387) a. **Iin** **na-**tiik kau.
3SG.NOM 3-heel 1SG.ACC
'He/she kicked me.' (Arka 2001: 1)

b. **Au** **'u-**tiik=e.
1SG.NOM 1SG-heel=3SG.ACC
'I kicked him/her.' (Arka 2001: 1)

(388) a. **Au** **'-**fee koo pena'.
1SG.NOM 1SG-give 2SG.ACC corn
'I give you corn.'
(YEK/NSK; elic. Mar. 16, 2022)

b. **Sina** **n-**fee kau pena' bian.
3PL 3-give 1SG.ACC corn some
'They gave me some corn.' (YEK;
AOZ2019-WORDLIST001, line 268)

I follow Pylkkänen (2008), Harley (2013), Legate (2014), and Alexiadou, Anagnostopoulou & Schäfer (2015) (among others) in assuming that external arguments are introduced in Spec,VoiceP. Under this assumption, a probe on v or Voice only c-commands objects. Unless this is a head that inherently agrees with its specifier, one would expect a preference for object agreement with a probe at this height (Béjar & Rezac 2009). This preference for agreement with subjects (i.e. the highest argument) is made clear when looking at various valence changing operations in Uab Meto. In this subsection we will see that an operation that increases valence, namely causativization, and

two operations that decrease valence, namely stativization and deobjectification, do not affect the preference for agreement with the highest argument, regardless of where it originates.

This section proceeds as follows. Sections 4.3.1 and 4.3.2 show that Uab Meto verbs prefer to agree with the highest DP in the clause, regardless of where it comes from. If the valence of a verb is increased (4.3.1) or decreased (4.3.2), then agreement targets whatever is the highest DP in the new structure, regardless of whether it is the highest DP before the change. Under the assumption that ϕ-probes agree with the highest DP in their c-command domain (Chomsky 2000, Bobaljik 2008, Deal 2017, Rudnev 2021, among others), this suggests that the Agr ϕ-probe is higher than the Merge site of external arguments. There is earlier discussion in section 2.5 presenting morphological evidence that Agr is the higher than Voice, principally from the ability to exclude Agr from nominalizations that include all other parts of the verbal complex, including Voice. There is also earlier discussion in sections 2.3.2, 2.3.3, and 2.4.4 of why Voice, $v_{[+CAUS]}$, and v are analyzed as distinct projections. Section 4.3.3 extends the analysis by examining the mechanisms of nominative and accusative case marking, their interactions with agreement, and the evidence for a subject position distinct from higher topic and focus positions. All of this discussion, combined with the discussion in section 4.2, yields a complete structure of Uab Meto clausal spine, which is illustrated in section 4.3.4.

4.3.1 Agreement is always with the verb's highest argument: Valence-increasing operations

We will first look at causativized verbs. Uab Meto has several causative suffixes, including *-'* (389), *-b* (390), *-n* (391), and null (392). Unaccusative verbs that agree with the patient when intransitive (the (a) examples) switch to agreeing with the higher agent when causativized (the (b) examples). Causativization also causes a change to syllabic agreement prefixes. This is shown below with the verbs *faen/fani* 'return' and *sae* 'rise', *poi* 'exit', and *mófu/móuf* 'fall'.

(389) a. **Au** **'-faen**.
1SG.NOM 1SG-return
'I return.' (YEK; elic. Jul. 30, 2019)

b. **Au** **'u-fani-'** koo.
1SG.NOM 1SG-return-CAUS 2SG.ACC
'I return you.' (YEK; elic. Jul. 30, 2019)

(390) a. **Au** **'-sae**.
1SG.NOM 1SG-rise
'I rise.' (YEK; elic. Mar. 25, 2021)

b. **Hoo** **mu-sae-b** kau.
2SG.NOM 2SG-rise-CAUS 1SG.ACC
'You raise me.' (YEK; elic. Mar. 25, 2021)

(391) a. **Au** **'-poi** 'u-'koo *skool*=e.
1SG.NOM 1SG-exit 1SG-from school=DEF
'I finished (primary) school.' (LTK; AOZ2019-MON011; line 2)

b. **Au** **kaes=le** neem **na-poi-n** kau.
1SG.NOM boss=DEF 3.come 3-exit-CAUS 1SG.ACC
'My boss came to take me out.' (LTK; AOZ2019-MON011, line 133)

(392) a. **Au** **’-móuf**.
1SG.NOM 1SG-fall
‘I fall.’ (Benu 2016: 153)

b. **Hoo** **mu-móuf-∅** kau.
2SG.NOM 2SG-fall-CAUS 1SG.ACC
‘You make me fall.’/‘You drop me.’ (Benu 2016: 153)

Unergative verbs like *aena*/*aen* ‘run’ can also be causativized in this way (393a vs. 393b). Consultant YEK prefers the *-’* causative suffix with this verb, while NSK prefers *-b*. Agreement remains with the highest DP, the agent causer.

(393) a. **Iin** **n-aen**.
3SG.NOM 3-run
‘He/she ran.’ (Arka 2001: 1)

b. **Hoo** **mu-’-aena-’/-b** kau on ume.
2SG.NOM 2SG-EPEN-run-CAUS 1SG.NOM IRR.LOC house
‘You run/take me home.’ (YEK/NSK; elic. Oct. 20, 2021)

Monotransitive verbs can also be causativized. In these cases, there is overlap with intransitive verbs in the choice of causative suffix and also some differences. The (a) examples in (394)-(397) show base verbs. Among the causativized verbs, the suffixes *-b* (394b) and *-’* (397b) from causativized intransitives both make an appearance, and there is also a suffix that is mostly attested on causativized monotransitives, *-t* (395b, 396b). *inu*/*iun* ‘drink’ varies between consultants in the choice of suffix; consultant YEK prefers *-t*, while consultant NSK prefers *-’* (397b). Here, agreement switches to the causer rather than the causee, i.e. to the one that carries out the causing event described by the causativized verb, not to the one that carries out the action described by the uncausativized verb.

(394) a. **Au** **’u-mnau** koo.
1SG.NOM 1SG-remember 2SG.ACC
‘I remember you.’ (YEK/NSK; elic. Feb. 2, 2022)

b. **Au** **’u-mnau-b** koo he m-soos manu.
1SG.NOM 1SG-remember-CAUS 2SG.ACC IRR 2SG-buy chicken
‘I remind you to buy a chicken.’ (YEK; elic. Feb. 2, 2022)

(395) a. **Au** **’-éók** bolo.
1SG.NOM 1SG-eat cake
‘I eat cake.’
(YEK/NSK; elic. Jul. 14, 2021)

b. **Au** **’u-’-éku-t** koo bolo.
1SG.NOM 1SG-EPEN-eat-CAUS 2SG.ACC cake
‘I feed you cake.’
(YEK/NSK; elic. Jul. 14, 2021)[7]

(396) a. **Au** **’-naa’** fatu.
1SG.NOM 1SG-hold stone
‘I hold a stone.’ (SRB/YFB/
YEK/NSK; elic. Jun. 27, 2022)

b. **Au** **’u-na’a-t** Tyler fatu.
1SG.NOM 1SG-hold-CAUS Tyler stone
‘I hand Tyler a stone.’
(YFB/YEK/NSK; elic. Jun. 27, 2022)

[7] A [ʔ] is epenthesized after agreement to prevent the grammatically-required syllabic Agr prefix from attaching to a vowel-initial stem.

(397) a. **Au** **’-iun** oel/oe.
1SG.NOM 1SG-drink water
‘I drink water.’
(YEK/NSK; elic. Jul. 14, 2021)

b. **Au** **’u-’-inu-t/-’** koo oel.
1SG.NOM 1SG-EPEN-drink-CAUS 2SG.ACC water
‘I give you water.’
(YEK/NSK; elic. Jul. 14, 2021)

I assume that *-’*, *-b*, *-n*, *-∅*, and *-t* are causative v ($v_{[+CAUS]}$) heads, in line with analyses of morphological causatives in languages like Hiaki (Harley 2013) and Acehnese (Legate 2014). I also assume that patient DPs are generated as complements of the root (Harley 2014). Crucially, this causativization does not add a second agent (and therefore a second VoiceP to introduce it). Rather, its θ-role is more akin to a recipient or beneficiary. For both causativized intransitives and causativized monotransitives, the causee is not interpreted as having any agentivity in the situation. The general pattern is that if the base verb only has an agent or patient, causative suffixation adds whichever of these two is missing, and if you already have an agent and patient, causative suffixation adds a recipient/beneficiary that is also interpreted as a causee. This is summarized in (398).

(398)

base verb	→	**verb with causative suffix**
unaccusative (patient)	→	monotransitive (agent/patient)
unergative (agent)	→	monotransitive (agent/patient)
monotransitive (agent/patient)	→	ditransitive (agent/patient/recipient)

The conclusion that these causative suffixes do not create a verbal configuration with two agents is perhaps obvious with causativized unaccusatives like *mófu*/*móóf* ‘fall’ (399), but it may initially be less obvious with unergatives and transitives. However, there are a few ways to show that the causee in these constructions is not an agent.

(399) a. Faat=be n-móóf.
stone=DEF 3-fall
‘The stone fell.’
(YEK; elic. Oct. 6, 2021)

b. Na-móóf-∅ fatu.
3-fall-CAUS stone
‘He/she/someone dropped a stone.’
(YEK; elic. Oct. 6, 2021)

The first piece of evidence comes from consultants’ comments on meaning differences between suffixed and periphrastic causatives. The latter are formed in a manner similar to English, with a causer subject of *mo’e*/*moe’* ‘make, do’ and an accusative-marked causee that is interpreted as the subject of the embedded verb, as shown in (400). Regarding meaning differences, consultants YEK and NSK comment that the suffixed causative in (397b) describes a situation where I am holding up a bottle to your mouth and pouring the water in. On the other hand, they comment that periphrastic causative (400a) describes a situation where I am telling you or forcing you to drink water, but you are in direct control of the drinking. The same semantic contrast can be seen with *éku*/*éók* ‘eat’ (395b vs. 400b).

(400) a. Au ’-moe’ koo m-iun oel/oe.
1SG.NOM 1SG-do 2SG.ACC 2SG-drink water
‘I make you drink water.’ (YEK/NSK; elic. Jul. 14, 2021)

b. Au ’-moe’ koo m-éók bolo.
1SG.NOM 1SG-do 2SG.ACC 2SG-eat cake
‘I make you eat cake.’ (YEK/NSK; elic. Oct. 20, 2021)

The same contrast can be observed with unergative verbs. For example, the sleeper object/causee of *tupa*/*tuup* ‘sleep’ causativized with *-b* does not have any agentivity over the process (like a child being put to sleep by its mother) (401b). On the other hand, the causee of a periphrastic causative is typically interpreted as being forced to carry out the action while retaining agentivity in the sense of direct control over the action described by the lexical verb (402a). The same contrast can be seen with *aena*/*aen* ‘run’ (393b vs. 402b). It might seem odd that causativizing both unergatives and unaccusatives leads to monotransitive verbs with an agent and patient, but Legate (2014: 119) makes the same observation about Acehnese, another Austronesian language of Indonesia.

(401) a. Ina n-tuup es haal’=e tuun.
3SG.NOM 3-sleep IPFV.LOC bed=DEF top
‘She is sleeping on the bed.’ (YEK; AOZ2019-WORDLIST001, line 261)

b. Au ’u-tupa-b koo.
1SG.NOM 1SG-sleep-CAUS 2SG.NOM
‘I put you to sleep.’ (YEK; elic. May 19, 2021, based on Steinhauer 1993: 154)

(402) a. Au ’-moe’ koo m-tuup.
1SG.NOM 1SG-do 2SG.ACC 2SG-sleep
‘I make you sleep.’ (YEK; elic. May 19, 2021)

b. Hoo ∅-moe’ kau ’-aen on ume.
2SG.NOM 2SG-do 1SG.ACC 1SG-run IRR.LOC house
‘You make me run home.’ (YEK/NSK; elic. Oct. 20, 2021)[8]

In fact, as noted by Tan (2023: 327), this property and others point to Uab Meto suffixed causatives being of the middle-sized vP-selecting or “verb-selecting” type in the typology of Pylkkänen (2008: 87), where a causative head selects for a root that has combined with a categorizing v. One piece of evidence that these suffixed causatives are not the (smaller) “root-selecting” type is that it is possible to have non-agentive adverbial modification of either the causing event or the caused event (Tan 2023: 328), as seen in (403) with *labah* ‘quickly’. I assume that all verbs in Uab Meto feature roots that combine with a v that categorizes roots as verbs and adds event semantics (Alexiadou, Anagnostopoulou & Schäfer 2015: 50), in this case for the caused event. $v_{[+CAUS]}$ then combines with the resulting vP and contributes causing event semantics. If $v_{[+CAUS]}$ selected directly for a root, rather than a root and v that introduces the caused event, we would not expect bieventive semantics, and thus this ambiguity of which event is being modified.

[8]The asyllabic 2SG agreement prefix *m-* is often null when attaching to verb stems that begin with [m].

(403) Hiit ta-'-aena-' siin **labah**.
1PL.INC.NOM 1PL.INC-EPEN-run-CAUS 3PL quickly
'We make them quickly run.' OR 'We quickly make them run.'
(YEK; elic. Jan. 23, 2024, based on Tan 2023: 328)

Evidence that these suffixed causatives are not of the larger Voice selecting type (also called "phase selecting" by Pylkkänen (2008: 87)) comes from the impossibility of agent-oriented modification of the caused event/causee, like with instruments (Tan 2023: 330). If you have an instrumental modifier *néki 'sono'* 'with a spoon', this can only be interpreted as describing the causer in (404b-d), never the causee. However, if you use a periphrastic causative, as opposed to a suffixed one, then it is possible for the instrument to describe the causee (404e). This difference can be attributed to the idea that the suffixed causatives are monoclausal, and thus there is only one agent. Agent-oriented modifiers are only semantically compatible with modifying that one agent, the causer in Spec,VoiceP. The causee is introduced in a lower, non-agentive position. However, periphrastic causatives are biclausal, thus allowing for two agents to be introduced in separate VoicePs, and for agent-oriented modification to target the causee.

(404) a. Yoakim n-iun *kofe*.
Yoakim 3-drink coffee
'Yoakim drinks coffee.' (NSK; elic. Apr. 13, 2022)

b. Yoakim n-iun *kofe* n-éki 'sono'.
Yoakim 3-drink coffee 3-bring spoon
'Yoakim drinks coffee with a spoon.' (YEK & NSK; elic. Mar. 30, 2022)

c. Context: Nona uses a spoon to give Yoakim coffee to drink.
✓ Nona na-'-inu-t Yoakim *kofe* (n-éki 'sono').
Nona 3-EPEN-drink-CAUS Yoakim coffee (3-bring spoon)
'Nona gives Yoakim coffee to drink (with a spoon).'
(YEK & NSK; elic. Apr. 13, 2022)

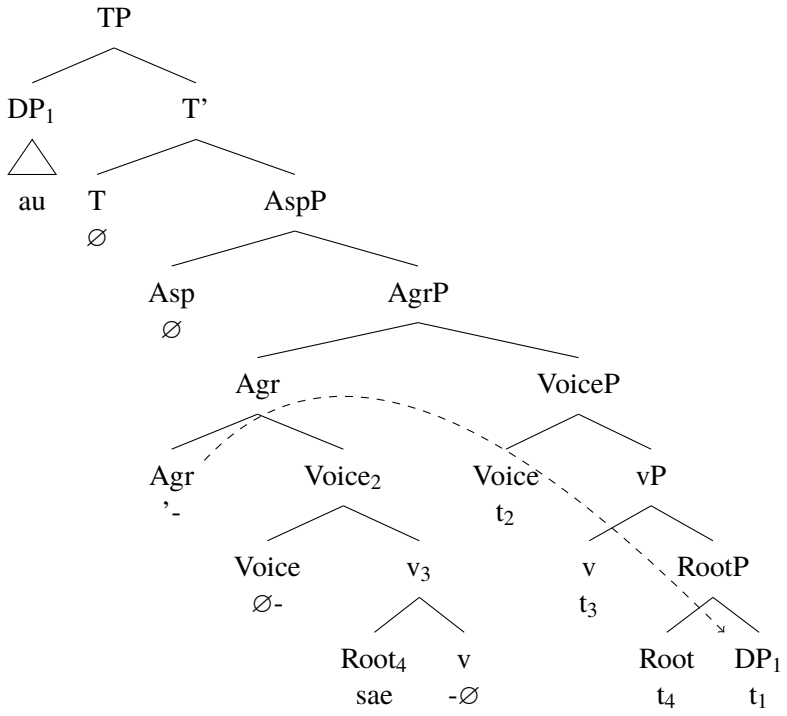
d. Context: Nona gives Yoakim coffee, and Yoakim uses a spoon to drink it.
Nona na-'-inu-t Yoakim *kofe* (n-éki 'sono').
Nona 3-EPEN-drink-CAUS Yoakim coffee (3-bring spoon)
'Nona gives Yoakim coffee to drink (with a spoon).'
(YEK & NSK; elic. Apr. 13, 2022)

e. Context: Nona makes Yoakim drink coffee, and Yoakim uses a spoon to drink it.
✓ Nona n-moe' Yoakim n-iun *kofe* (n-éki 'sono').
Nona 3-do Yoakim 3-drink coffee (3-bring spoon)
'Nona makes Yoakim drink coffee (with a spoon).'
(YEK & NSK; elic. Apr. 13, 2022)

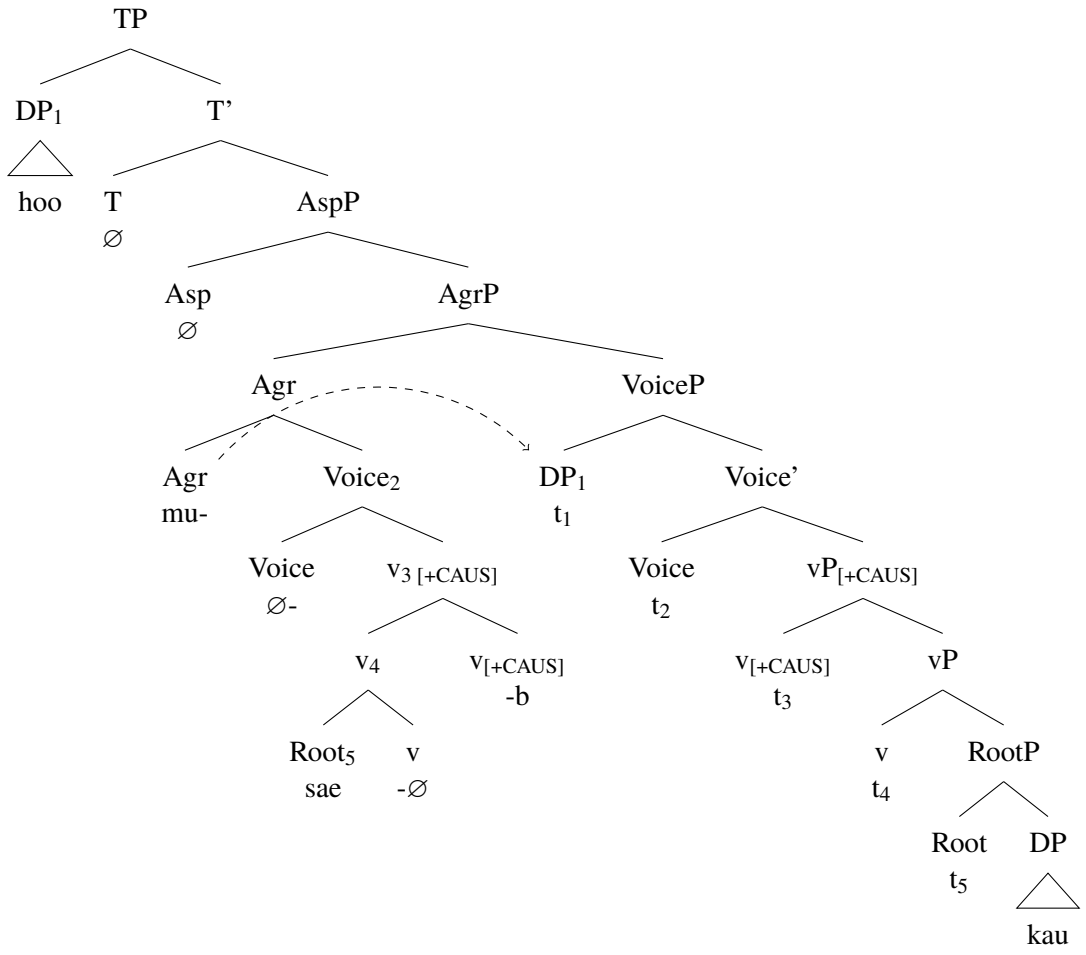
The properties discussed above suggest that $v_{[+CAUS]}$ selects for a vP complement; it does not embed a second agent. I assume that this complement vP is the one headed by the "default" v present in

every clause to verbalize roots and add event semantics. Under this assumption, Voice must be above $v_{[+CAUS]}$. Regarding agreement, the pattern in these examples, consistent agreement with the highest DP, follows if the ϕ-probe is higher than v and Voice, but it would be surprising otherwise. To illustrate, how the analysis captures this agreement pattern is illustrated for a plain and causativized unaccusative in (405) and (406). These provide structures for (390a) and (390b) respectively. Causativized unergatives like (393b) can be analyzed in a structurally identical way to causativized unaccusatives (406) despite having a distinct non-causativized structure.

(405)

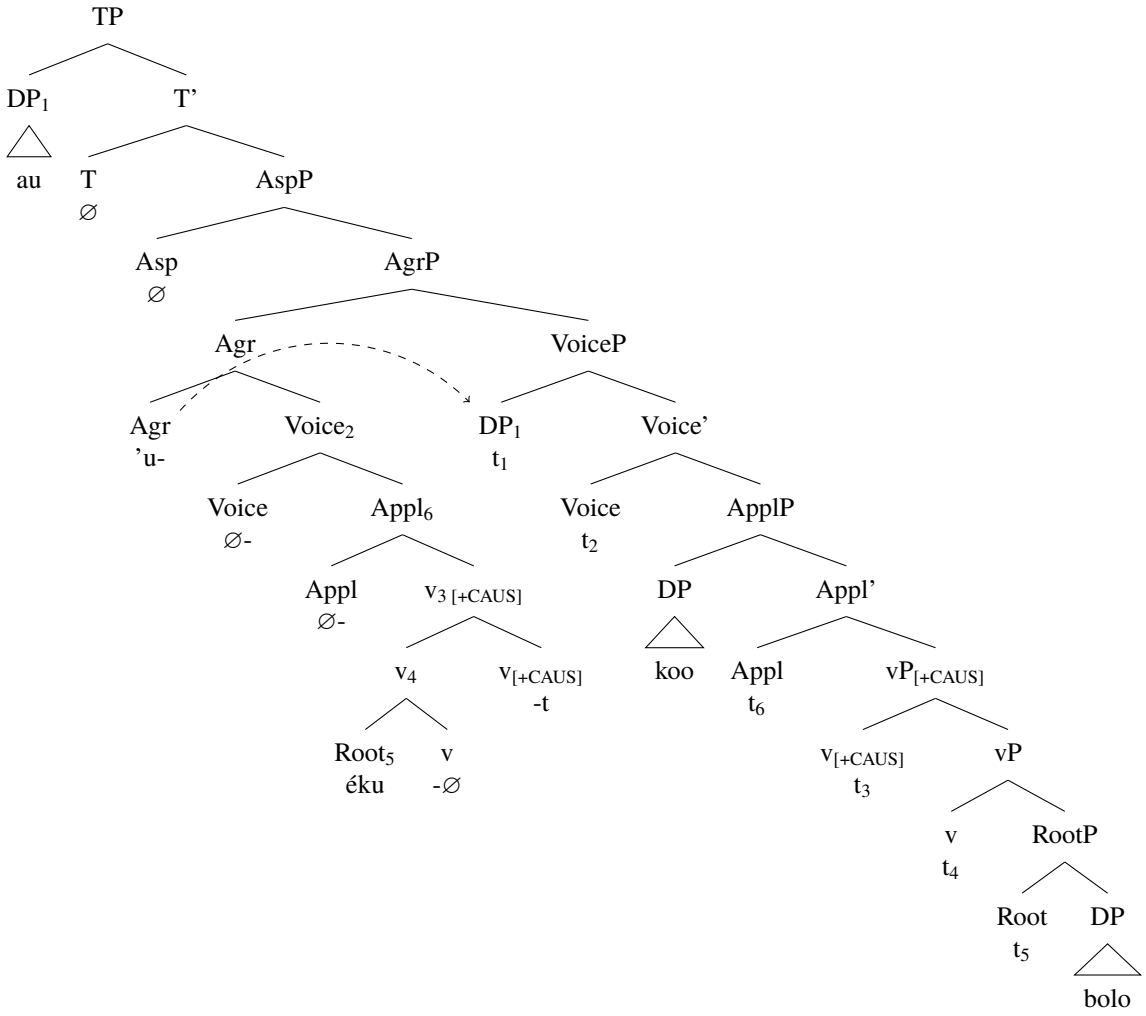


(406)



For causativized transitives, I propose that their causees are introduced in an applicative (Appl) head that sits between $v_{[+CAUS]}$ and Voice. The proposed structure of (395b) is given in (407). (407) is based on the structure provided by Legate (2014: 125) for a similar causativized transitive in Acehnese. The original, agentive argument of the non-causativized verb is introduced instead as a non-agentive causee below Voice. Spec,VoiceP is reserved for the causer, which is interpreted as the agent. The ϕ-probe on Agr probes into its c-command domain, encounters this argument first, and agrees with it.

(407)



4.3.2 Agreement is always with the verb's highest argument: Valence-decreasing operations

So far we have seen that when the valence of a verb is *increased*, agreement is with the highest argument, regardless of the base position of that argument. Agreement is also with the highest argument when the valence of a verb is *decreased*. Here we will look at two prefixes that detransitivize verbs, at least syntactically: stative *m(a)-* and deobjective *ma-*.

Focusing first on stative *m(a)-*[9], (408a-b) shows a basic active/stative pair. In the stative sentence (408b), the external argument is suppressed, and agreement is with the patient. That this is true agreement with a subject and not default 3rd person agreement possibly alongside topicalization is shown via examples like (408c-d).

[9]The exact semantics of "stative" *m(a)-* are unresolved, so I am defaulting to the term used in Edwards (2020: 446). "resultative" is an alternative.

(408) a. Au ∅-'iup hau toe-f.
1SG.NOM 1SG-break tree branch-INAL
'I broke a tree branch.'
(YEK; elic. Sep. 15, 2021)

b. Hau toe-f=e na-**m-**'iup.
tree branch-INAL=DEF 3-STAT-break
'The tree branch was broken.'
(YEK; elic. Sep. 15, 2021)

c. Au 'u-m-'iup.
1SG.NOM 1SG-STAT-break
'I was broken.' (YEK/NSK; elic. Sep. 15, 2021) (i.e. I am the branch.)

d. Hoo mu-m-'iup.
2SG.NOM 2SG-STAT-break
'You were broken.' (YEK/NSK; elic. Sep. 15, 2021) (i.e. You are the branch.)

It remains an open question whether an agent DP is present *semantically* with these stative verbs, as they are in English passives (Alexiadou, Anagnostopoulou & Schäfer 2015: 20, Bhatt & Pancheva 2017: 8). For reasons of space I will set this question aside, because what matters for ϕ-agreement is whether an agent (or any argument higher than the patient) is present *syntactically*. In this case the answer is a clear no.

The stative prefix *m(a)-* is not very productive on verbs in Uab Meto (Edwards 2020: 446, Tan (2023: 224), unlike on nouns (Tan 2023: 227), as seen in section 2.4.2. The most typical way to express sentences akin to long passives (i.e. passives with an overt, demoted agent like *The tree branch was broken* ***by me***.) is to have an active transitive verb with the subject focused and the object topicalized (409a), but not necessarily (409b).

(409) a. Le' fafi nae iin esa n-keen.
REL pig DEM.DIST 3SG.NOM FOC 3-shoot
'The pig was shot by him.' (More literally: 'The one which is that pig, he shot.')
(YEK; AOZ2019-WORDLIST001, line 266)

b. Nona (esa) n-tui *buku*.
Nona (FOC) 3-write book
'A book was written by Nona.' (More literally: 'Nona wrote a book.')
(YEK/NSK; elic. Aug. 4, 2021)

Topicalized object DPs often co-occur with a resumptive pronoun in object position (410), but not necessarily (409a).

(410) a. [Siis fafi]$_1$ au '-lóóm[=je]$_1$.
[meat pig]$_1$ 1SG.NOM 1SG-like[=3SG.ACC]$_1$
'Pork I like (it).' (YEK/NSK/YFB; elic. Jul. 4, 2022)

b. [Fafi ii]$_1$ Yoakim es na-tiik[=e]$_1$.
[pig DEM.PROX]$_1$ Yoakim FOC 3-heel[=3SG.ACC]$_1$
'This pig Yoakim kicked (it).' (YEK/YFB; elic. Jul. 4, 2022)

The most typical way to express short passives (i.e. those without an overt agent) is to have an active verb with 3rd-person agreement and an in-situ, accusative-marked object (411). One can optionally add an overt subject like *tuafe* 'someone' (411a). Notably, when the object is a pronoun, one can

optionally topicalize it and leave an accusative resumptive pronoun in-situ (412). Crucially though, agreement on the verb is always 3rd-person. In order to maintain the generalization that the verb agrees with the highest DP, we must posit a null impersonal subject that controls agreement and is syntactically present as an agent generated in Spec,VoiceP, as indicated in (412). This idea is inspired by the analysis of the Polish impersonal construction presented in Lavine (2005), Landau (2010), and Legate (2014: 96-98).

(411) a. (Tua-f=e) n-teop kau.
(person-INAL=DEF) 3-hit 1SG.ACC
'I was hit.' / 'Someone hit me.'
(YEK/NSK; elic. Jul. 28, 2021)

b. N-iun oel nae.
3-drink water DEM.DIST
'That water was drunk.' / 'Someone drank that water.' (YEK; elic. Jan. 29, 2024)

(412) a. Fuun nima-', [au]$_1$ ***pro***$_{3SG}$ **n-***lantik* [kau]$_1$ '-éék *desa*.
moon five-NMLZ [1SG.NOM]$_1$ 3SG.NOM 3-inaugurate [1SG.ACC]$_1$ 1SG-bring village
'In May, I was inaugurated (as the head) to lead the village.'
(YAF; AOZ2019-MON004, line 126)

b. ([Hoo]$_1$) ***pro***$_{3SG}$ **n-**aem [koo]$_1$.
([2SG.NOM]$_1$) 3SG.NOM 3-look.for [2SG.ACC]$_1$
'You were being looked for.' (YEK; elic. Jan. 29, 2024)

The examples in (412) feature an underlying object that has been topicalized. Despite the nominative case marking, this argument is crucially not also a subject. As discussed in section 4.3.3, this topicalized object does not control agreement, and it does not move to Spec,TP. These properties instead characterize the impersonal agent, which I analyze as the highest DP is Agr's c-command domain. Examples like these contrast with those in (408b-d), which do not have an external argument. The only DP present is the patient, and so this DP becomes the grammatical subject and controls agreement. It appears that if a DP controls agreement, it cannot be resumed as an accusative-marked object (413). Perhaps A-movement is not compatible with resumption, but Ā-movement is.

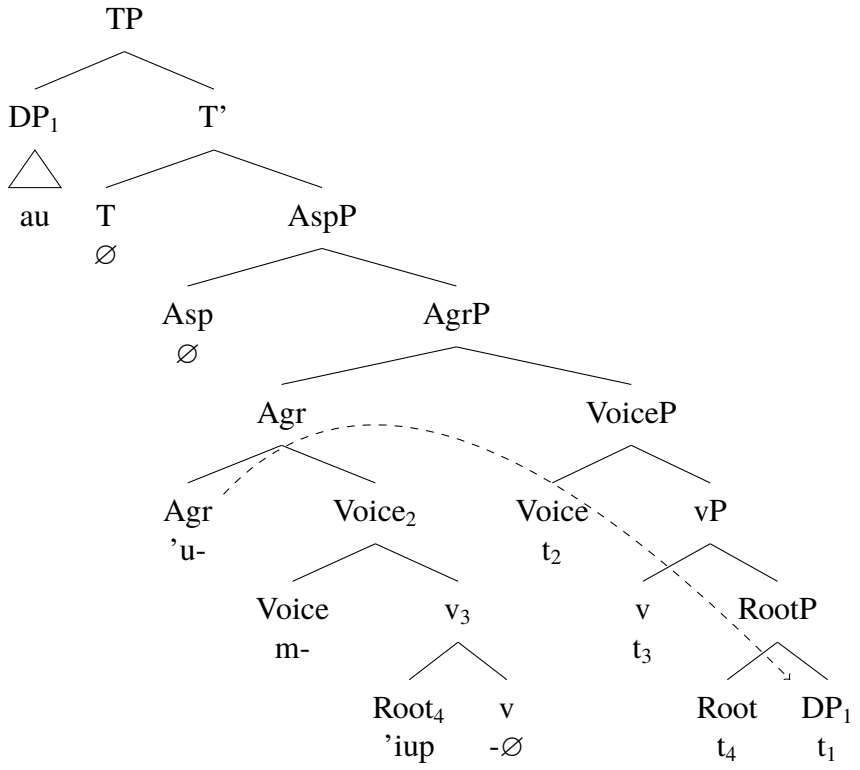
(413) a. Hoo mu-maas (*koo).
2SG.NOM 2SG-form (*2SG.ACC)
'You are beautiful.' (YEK; elic. Oct. 28, 2021)

b. Au '-took (*kau).
1SG.NOM 1SG-sit (*1SG.ACC)
'I sit.' (grammatical example from Steinhauer (1993: 134), ungrammatical version from YEK/NSK; elic. Oct. 27, 2021)

The data presented here suggest that while the Uab Meto impersonal construction typically used for passive meanings features a syntactically present agent, verbs marked with stative *m(a)-* do not. Thus, from a syntactic standpoint they are unaccusative, featuring only a patient generated as the complement of the root. Agr probes into its c-command domain to find this argument and agrees

with it. T moves this argument to Spec,TP. As for *m(a)-*, it is a Voice head that indicates the lack of a syntactic external argument. It may introduce one semantically (Harley 2013: 52-55, Legate 2014: 39-41, and Alexiadou, Anagnostopoulou & Schäfer 2015: 124), but this remains an open question. To illustrate the analysis, the structure of (408c) is provided in (414)

(414)



Another prefix that converts transitive verbs into intransitive ones is deobjective *ma-*, shown below attaching to the verb *tepo*/*teop* 'hit'. (415a) shows the base verb, with an agent acting on a patient, and (415b-d) show the deobjective version. If the subject is plural, elicited translations with no context often give rise to a reciprocal interpretation (Edwards 2020). If the subject is singular, elicited translations with no context have an existentially interpreted object (415c). It is also possible to include an overt oblique object (415d) introduced by *oka*/*ook* 'with'. Analogous examples with the verb *kena*/*keen* 'shoot' are shown in (416).

(415) a. Au 'u-teop koo.
1SG.NOM 1SG-hit 2SG.ACC
'I hit you.'
(YEK; elic. Jul. 28, 2021)

b. Hita t-**ma**-teop.
1PL.INC.NOM 1PL.INC-DEOB-hit
'We hit/fight each other.'
(YEK; elic. Aug. 11, 2021)

c. Au 'u-**ma**-teop.
1SG.NOM 1SG-DEOB-hit
'I fight (with someone).'
(YEK; elic. Jul. 28, 2021)

d. Au 'u-**ma**-teop 'u-ook koo.
1SG.NOM 1SG-DEOB-hit 1SG-with 2SG.ACC
'I fight with you.'
(YEK; elic. Oct. 1, 2021)

(416) a. Ina n-keen faaf=jes.
3SG.NOM 3-shoot pig=one
'He shot a pig.' (YEK; AOZ2019-WORDLIST001, line 265)

b. Hita t-**ma**-keen.
1PL.INC.NOM 1PL.INC-DEOB-shoot
'We shoot each other.' (YEK; elic. Sep. 22, 2021)

c. Au '-**ma**-keen.
1SG.NOM 1SG-DEOB-shoot
'I shoot.' / 'I war.' (SRB/YFB/YEK/NSK; elic. Jul. 2, 2022)

d. Au '-**ma**-keen '-ook koo.
1SG.NOM 1SG-DEOB-shoot 1SG-with 2SG.ACC
'I shoot with you.' (YEK; elic. Sep. 22, 2021)

The reciprocal interpretation is a pragmatic implicature. Examples like (415b) with a plural subject can be interpreted with an existential object (417a); the subject entities do not need to be directing the action at each other. Examples like (417b) with a plural subject and overt oblique object confirm the optionality of subject reciprocity.

(417) a. Hita t-ma-teop.
1PL.INC.NOM 1PL.INC-DEOB-hit
'We fight (with someone/each other).' (YEK/NSK; elic. Apr. 13, 2022)

b. Hita t-ma-teop t-ook faef fui=nun.
1PL.INC.NOM 1PL.INC-DEOB-hit 1PL.INC-with pig wild=PL
'We fight with wild pigs.' (YEK; elic. Jul. 1, 2022)

Deobjective *ma-* has the syntactic effect of an antipassive. As with typical antipassives, it demotes objects rather than subjects, though an object remains semantically (Silverstein 1972: 395) and may optionally be expressed overtly in an oblique way (England 1988: 532-533). One difference from typical antipassives, however, is that the oblique object must be capable of directing the action back at the subject. This may explain why more asymmetrical verbs like 'drink' are incompatible with *ma-* (418a vs. b).

(418) a. Au '-iun *kofe*.
1SG.NOM 1SG-drink coffee
'I drink coffee.' (YEK/NSK; elic. Jul. 1, 2022)

b. * Au '-ma-'-iun ('-ook *kofe*).
1SG.NOM 1SG-DEOB-EPEN-drink (1SG-with coffee)
Intended: 'I drink (with coffee).' (YEK/NSK; elic. Jul. 1, 2022)

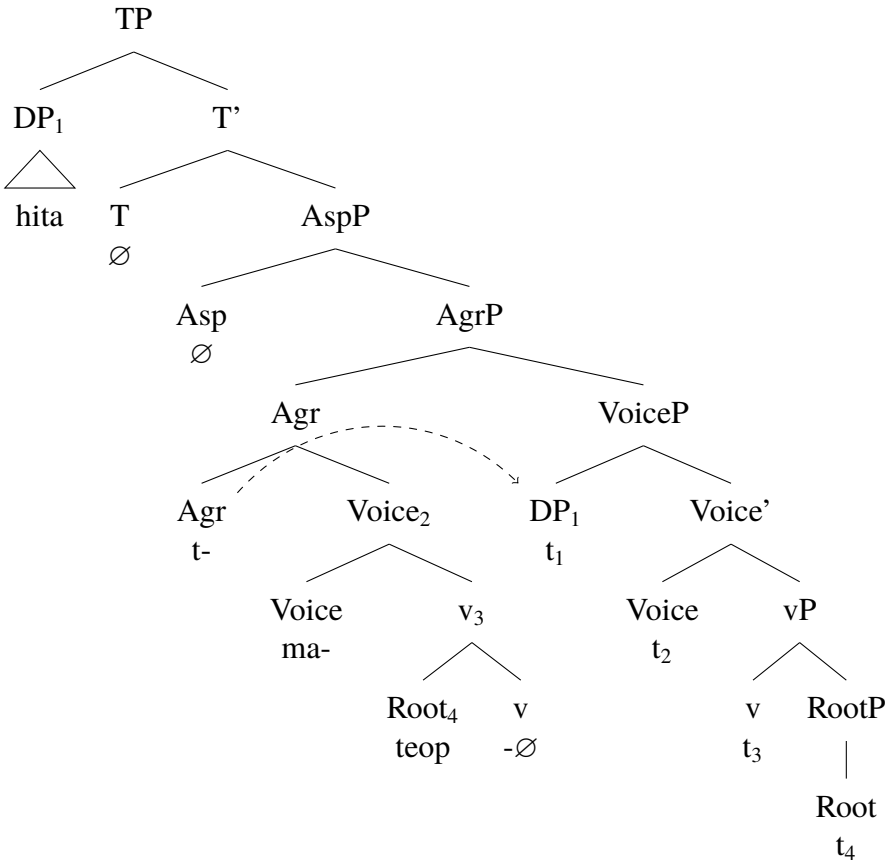
I analyze deobjective *ma-* in a way that broadly follows Labelle (2008)'s analysis of French reciprocal *se* (419). Labelle (2008) analyzes French reciprocal *se* as a Voice head that introduces the external argument and combines with a VP containing an unsaturated internal argument variable. These aspects work for Uab Meto *ma-*, and I adopt them. Where the analyses diverge is that reciprocal *se* has the function of identifying the external argument with the previously unsaturated

internal argument and saturating it that way (Labelle 2008: 838), whereas deobjective *ma-* existentially quantifies over the internal argument and adds the presupposition that the internal argument must be capable of or actually be returning the action described by the verb.

(419) Luc et Pierre **se** regard-ent.
Luc and Pierre SE look.at-PRES.3PL
'Luc and Pierre look at each other.' (Labelle 2008: 834)

As far as agreement is concerned, sentences with deobjective *ma-* and an implied object are syntactically unergative, with only an external argument present. There is only one argument with which the ϕ-probe can agree, so it is perhaps not surprising that it agrees with this argument. To illustrate the analysis, a tree of (415b) is provided in (420).

(420)



4.3.3 Case assignment, topic, focus, and subject position

Sections 4.3.1 and 4.3.2 establish that agreement targets the highest DP within Agr's c-command domain. Examples in the range of (409)-(412), which feature topicalization and focus fronting, often show the highest DP in the whole clause not being the one targeted for agreement, leading to the postulation of null impersonal subjects that control agreement when there is no overt subject,

3rd-person agreement, and an overt post-verbal object, as in (411) and (412). The examples in (412) are perhaps the most interesting, because they feature, at least optionally, a pre-verbal nominative pronoun doubled by a post-verbal accusative pronoun. These contrast with the examples in (413), where the nominative pronoun agrees with the subject, and accusative doubling is not possible. Because of these complications, this section serves to make explicit my assumptions about how case is assigned in Uab Meto and how case assignment interacts with agreement.

This section will first determine the heads responsible for case assignment. Then it will show how three derived positions, namely topic position, focus position, and subject position, interact with case and agreement. Accusative case is assigned by several heads in the verbal complex to lower DPs. These heads include active or "default" Voice, Appl, and $v_{[+CAUS]}$. Active Voice and $v_{[+CAUS]}$ can only assign case when introduce specifiers. Apparent dative marking can be decomposed into an indirect object marker *=n* + accusative marking on the DP itself, assigned by *=n* as a last resort. Nominative case is assigned by T to subjects, and Poss to possessors. Nominative can also emerge as a default on topicalized and focused DPs associated with objects.

In the broadest sense, meaning case marking in any way at all, Uab Meto has three cases: nominative, accusative, and dative. Dative marking is a verbal enclitic, rather than morphological case marking on pronouns and/or DPs. As discussed in more detail in Tan (2023: 360-371), there is an enclitic *=n* that introduces 3rd-person indirect objects (421a-c), including non-pronominal DPs (421c), but notably not 1st- and 2nd-person indirect objects (421d-e), where just the accusative pronoun is used. These objects are interpreted as recipients or benefactors.

(421) a. Au 'fee**=n=e** pena'.
1SG.NOM 1SG-give=DAT=3SG.ACC corn
'I give him/her corn.' (YEK; elic. Mar. 16, 2022)

b. Hai m-fee**=n** **siin** ume.
1PL.EXC.NOM 1PL.EXC-give=DAT 3PL house
'We give them a house.' (YAF; AOZ2019-MON004, line 154)

c. Au 'fee**=n** Bi Dhea oel.
1SG.NOM 1SG-give=DAT Ms. Dhea water
'I give Ms. Dhea water' (YEK; elic. Jun. 27, 2022)

d. Au 'fee **koo** pena'.
1SG.NOM 1SG-give 2SG.ACC corn
'I give you corn.' (YEK/NSK; elic. Mar. 16, 2022)

e. Hoo m-fee **kau** pena'.
2SG.NOM 2SG-give 1SG.ACC corn
'You give me corn.' (YEK/NSK; elic. Mar. 16, 2022)

This marker also commonly introduces 3rd-person objects of locative verbs like *bii* (RLS.LOC) (422a), *'koo* 'from' (422b), *eu* 'to' (422c), and *oka*/*ook* (422d). (422c) is also interesting because it shows that *fee* 'give' can participate in a prepositional dative construction, which is formed with a preposition-like verb in Uab Meto, in this case *eu* 'to, for' (Tan 2023: 370). This serves as an

alternative to the ditransitive datives in (421). (422d) is additionally interesting because it reveals, contra Tan (2023: 368), that dative *=n* is separable from the following 3SG accusative enclitic *=e*, suggesting that at least in the Miomafo variety, one does not need to posit a special 3SG dative enclitic *=ne*.

(422) a. Au ’-taam fuunn=es|a **’-bii=n** uim menas.
1SG.NOM 1SG-enter moon=one|EPEN 1SG-RLS.LOC=DAT house sickness
‘I was in the hospital for one month.’ (LTK; AOZ2019-MON011, line 105)

b. Hoo m-soos faaf=je **na-’koo=n**=e.
2SG.NOM 2SG-buy pig=DEF 3-from=DAT=3SG.ACC
‘You buy the pig from him/her.’ (YEK; elic. Jun. 24, 2022)

c. Ina n-fee koo **n-eu=n**=e.
3SG.NOM 3-give 2SG.ACC 3-to=DAT=3SG.ACC
‘He/she give you to him/her.’ (SRB/YFB/YEK; elic. Jun. 25, 2022)

d. N-uu n-aan kau=m **’-oka=n**. **’-ook=n**=e *selama* funan ...
3-come 3-get 1SG.ACC=and 1SG-with=DAT 1SG-with=DAT=3SG.ACC during moon ...
funan nee.
moon six
‘She came and got me, and I lived with (her). I lived with her for ... six months.’ (LTK; AOZ2019-MON011, lines 17-19)

This marker can also be used to introduce 3rd-person indirect objects with verbs that would not normally take such an object, like *sii* ‘sing’ (423a). (423b-c) present a revealing minimal pair. Without dative *=n* in (423b), *hoo aina’* ‘your mother’ is interpreted as the possessor of the song, within the same larger DP *hoo aina’ siit* ‘your mother’s song’. It cannot have a recipient or benefactor meaning. By contrast, with *=n* in (423c), *hoo aina’* is interpreted as a recipient or benefactor. This verb can also have its recipient/benefactor expressed in a prepositional dative, as shown in (423d).

(423) a. Hoo **m-sii** sii-t.
2SG.NOM 2SG-sing sing-NMLZ
‘You sing a song.’ (YEK/NSK/YFB; elic. Jun. 25, 2022)

b. Hoo **m-sii** hoo aina-’ sii-t.
2SG.NOM 2SG-sing 2SG.NOM mother-1/2.KIN sing-NMLZ
✓‘You sing your mother’s song.’
* ‘You sing your mother a song.’ (YEK/NSK/YFB; elic. Jun. 25, 2022)

c. Hoo **m-sii=n** hoo aina-’ sii-t.
2SG.NOM 2SG-sing=DAT 2SG.NOM mother-1/2.KIN sing-NMLZ
‘You sing your mother a song.’ (YEK/NSK/YFB; elic. Jun. 25, 2022)

d. Hoo **m-sii** sii-t n-eu hoo aina-’.
2SG.NOM 2SG-sing sing-NMLZ 3-to 2SG.NOM mother-1/2.KIN
‘You sing a song to/for your mother.’ (YEK/NSK/YFB; elic. Jun. 25, 2022)

Data with pronouns showing that dative *=n* cannot be used to introduce direct objects is provided in (424). The 3SG object immediately following the verb must be an indirect object for *=n* to be used. The examples in (425) show that *fee* 'give' also assigns an indirect object interpretation to *=n*-marked objects, even when they are the sole overt object (425a). In a prepositional dative like (425b) where it is instead the 3SG direct object that is immediately adjacent to *fee*, there is no *=n* on *fee*, and the [l]-initial accusative allomorph based on the stem ending in <e>/[ɛ] is used.

(424) a. Hoo **m-sii**=je
2SG.NOM 2SG-sing=3SG.ACC
✓'You sing it.'
* 'You sing to/for him/her/it.' (YEK/NSK/SRB/YFB; elic. Jun. 27, 2022)

b. Hoo **m-sii=n**=e sii-t.
2SG.NOM 2SG-sing=DAT=3SG.ACC sing-NMLZ
'You sing him/her/it a song.' (YEK/NSK/YFB; elic. Jun. 25, 2022)

(425) a. Au **'-fee=n**=e.
1SG.NOM 1SG-give=DAT=3SG.ACC
'I give him/her/it (something).' (YEK/NSK/SRB/YFB; elic. Jun. 25, 2022)

b. Tyler a|**n-fee=le** **n-eu=n**=e.
Tyler EPEN|3-give=3SG.ACC 3-to=DAT=3SG.ACC
'Tyler gives him/her/it to him/her/it.' (YEK; elic. Mar. 9, 2022)

When a 3rd-person pronoun is the causee of a causativized transitive, despite its recipient interpretation, it receives accusative case without *=n* (426).

(426) Au **'u-'-iun-t**=e oel.
1SG.NOM 1SG-EPEN-drink-CAUS=3SG.ACC water
'I give him/her/it water.' (YEK; elic. Jun. 27, 2022)

Examples like (427a) confirm the generalization that dative *=n* is ungrammatical with 1st- and 2nd-person objects, while the prepositional dative is still available (427b).

(427) a. Au **'-tui(*=n)** **koo** tui-s.
1SG.NOM 1SG-write(*=DAT) 2SG.ACC write=NMLZ
'I write you a note.' (SRB/YFB/YEK/NSK; elic. Jun. 25, 2022)

b. Au **'-tui** tui-s **n-eu koo**.
1SG.NOM 1SG-write write=NMLZ 3-to 2SG.ACC
'I write a note for you.' (SRB/YFB/YEK/NSK; elic. Jun. 25, 2022)

This unavailability of *=n* with 1st- and 2nd-person pronouns means that case marking is often the only way to tell whether such a pronouns is an indirect object (accusative case, 428a) or a possessor of an object (nominative case, 428b).

(428) a. Hoo m-sii **kau** sii-t.
2SG.NOM 2SG-sing 1SG.ACC sing-NMLZ
'You sing me a song.'
(YEK/NSK/YFB; elic. Jun. 27, 2022)

b. Hoo m-sii **au** sii-t.
2SG.NOM 2SG-sing 1SG.NOM sing-NMLZ
'You sing my song.'
(YEK/NSK/YFB; elic. Jun. 27, 2022)

Dative *=n* is a verbal enclitic, not a case marker on the DP. One piece of evidence for this comes from word order in negation. Recall from (363) that pronominal objects occur adjacent to the verb and to the left of the negative enclitic *=fa*, while full-DP objects occur to the right of *=fa*. This pattern extends to ditransitives (429). Notably, if *=n* is present, it remains attached to the verb, and *=fa* intervenes between it and full-DP objects (429b).

(429) a. Au ka= **'-fee** **koo** **=fa** fafi.
1SG.NOM NEG= 1SG-give 2SG.ACC =NEG pig
'I did not give you a pig.' (YEK; elic. Feb. 2, 2024)

b. Au ka= **'-fee=n** **=fa** **Tyler** fafi.
1SG.NOM NEG= 1SG-give=DAT =NEG Tyler pig
'I did not give Tyler a pig.' (YEK; elic. Feb. 2, 2024)

Fascinatingly, there appears to be some optionality in both the presence of dative *=n* and in the case marking on pronouns. Regarding the presence of *=n*, (430a) shows a naturalistic example where speaker YAF uses realis locative *bii* and *=n* to introduce the object *adat* 'custom', but *=n* is dropped immediately after upon the second mention, which includes the relativizer *le'* often used on subsequent mentions. (430b) shows a translation given by consultant YEK right before giving the one in (429b). It feature the same verb *fee* 'give' and the same indirect object *Tyler* immediately after negative *=fa*, but no *=n*.

(430) a. Ina 'naka-n|a **m-bii=n** ***adat***. Ina 'naka-n|a
3SG.NOM head-3SG.INAL|EPEN 3-RLS.LOC=DAT custom 3SG.NOM head-3SG.INAL|EPEN
m-bii **le'** ***adat***.
3-RLS.LOC REL custom
'He is the head of customs. He is the head of customs.' (YAF; AOZ2019-MON004, lines 331-333)

b. Au ka= **'-fee** **=fa** **Tyler** faaf=jes.
1SG.NOM NEG= 1SG-give =NEG Tyler pig=one
'I did not give Tyler a pig.' (YEK; elic. Feb. 2, 2024)

Regarding variation in case marking on pronouns, it was shown in (422) that a few preposition-like verbs with locative meanings can introduce objects with dative *=n*. These verbs are interesting because they allow for *=n* even though they are monotransitive, not ditransitive. Another interesting aspect of these verbs is that they allow for nominative objects, as shown in (431a-c). (431b) shows that it is also possible to have just an accusative 3SG without dative *=n*, the [b]-initial form here being conditioned by the final back vowel of the verb, though there are conflicting judgments for

this (431c)[10]. This variation does not extend to typical monotransitive verbs, where post-verbal nominative objects are highly ungrammatical (431d).

(431) a. Ina n-méup **n-eu** {✓**hoo** / ✓**koo**}.
3SG.NOM 3-work 3-to {2SG.NOM / 2SG.ACC}
'He/she works for you.' (YEK; elic. Feb. 16, 2022)

b. Au '-méup **n-eu** {✓**iin** / ✓**=be** / ✓**=n=e**}.
1SG.NOM 1SG-work 3-to {✓3SG.NOM / ✓=3SG.ACC / ✓=DAT=3SG.ACC}
'I work for him/her.' (YEK; elic. Feb. 16, 2022)

c. Hoo m-soos fafi **na-'koo** {✓**iin** / *=**be** / ✓**=n=e**}.
2SG.NOM 2SG-buy pig 3-from {✓3SG.NOM / *=3SG.ACC / ✓=DAT=3SG.ACC}
'You buy a pig from him/her.' (YEK; elic. Jun. 24, 2022)

d. Au **'u-tiik** {*hoo / ✓**koo**}.
1SG.NOM 1SG-heel {*2SG.NOM / ✓2SG.ACC}
'I kick you.' (YEK/NSK; elic. Feb. 16, 2022)

This distribution of case forms and dative *=n* is complicated, but the data presented so far still allow one to make some generalizations about case in Uab Meto. The first is that there is a syntactic way to mark dative case on 3rd-person pronouns and DPs. This marking is common but not absolutely required (430). The *=n* is clearly separable from the indirect objects with which it is associated (422d, 429b), and if it combines with an element that overtly bears case, like the 3SG pronoun, this pronoun is in its accusative form. Given these generalizations, I would argue that there are only two morphological cases in Uab Meto, nominative and accusative.

As the final piece of the accusative puzzle, I stated above that active or "default" Voice can assign case to a lower DP when it introduces a specifier. However, the other Voice heads, stative *m(a)-* and deobjective *ma-*, cannot do this. This has different effects depending on the Voice head.

Stative *m(a)-* suppresses agents. No external argument is introduced, so there is no head in the clause that can assign accusative case. The patient is the highest DP, so it moves to Spec,TP to receive nominative case, to the left of TAM marking. Because it is the highest DP, Agr also agrees with it. This is all shown in (432). Nominative case will be discussed in more detail below.

(432) a. Au ∅-**'iup** **hau toe-f**.
1SG.NOM 1SG-break tree branch-INAL
'I broke a tree branch.' (YEK; elic. Sep. 15, 2021)

b. [**Au**]$_1$ lof **'u-m-'iup** t_1
[1SG.NOM]$_1$ FUT 1SG-STAT-break t_1
'I will be broken.' (YEK/NSK; elic. Jan. 26, 2022)

c. [Hau toe-f=e]$_1$ lof **na-m-'iup** t_1
[tree branch-INAL=DEF]$_1$ FUT 3-STAT-break t_1

[10]3SG accusatives without dative *=n* do not appear to be possible with these verbs in the Amarasi varieties (Tan 2023: 369). If it is possible in Miomafo, it does not appear to be the preferred choice.

‘The tree branch will be broken.’ (YEK/NSK; elic. Jan. 26, 2022)

Deobjective *ma-* introduces an external argument, but it does not assign case to an object. Objects must be introduced obliquely by *oka*/*ook* ‘with’ (433a), unlike with active Voice, where this option is ungrammatical (433b).

(433) a. Hita **t-ma-tuuf** *(**t-ook**) siin.
1PL.INC.NOM 1pl.inc-DEOB-hit *(1PL.INC-with) 3PL
‘We fight with them.’ (YEK/NSK; elic. Jul. 1, 2022)

b. Hita **t-tuuf** (***t-ook**) siin.
1PL.INC.NOM 1pl.inc-hit (*1PL.INC-with) 3PL
‘We fight them.’ (YEK/NSK; elic. Jul. 1, 2022)

In ditransitive constructions with deobjective *ma-*, the indirect-object recipient cannot be introduced directly, but the direct-object patient still can. One can compare the (a) examples in (434) and (435), which show ditransitive constructions with active Voice and an in-situ indirect-object recipient, to the (b) and (c) examples, which show deobjective *ma-* and an oblique or absent indirect object. The direct object is present in all cases. This contrasts with the effect of deobjective *ma-* on monotransitive verbs, where the patient is absent, including for inherently monotransitive verbs (415, 416) and verbs that are made monotransitive through causativization (436).

(434) a. Ina **n-fee kau** ***oto***.
3SG.NOM 3-give 1SG.ACC car
‘He gives me a car.’ (YEK/NKS; elic. Jul. 1, 2022)

b. Ina **n-ma-fee** ***oto*** n-ook kau.
3SG.NOM 3-DEOB-give car 1SG-with 1SG.ACC
‘He and I give each other cars.’ (YEK/NKS; elic. Jul. 1, 2022)

c. Hita **t-ma-fee** ***oto***.
1PL.INC.NOM 1PL.INC-DEOB-give car
‘We give each other cars.’ (YEK/NKS; elic. Jul. 1, 2022)

(435) a. Au **’u-’-inu-t** koo *kofe*.
1SG.NOM 1SG-EPEN-drink-CAUS 2SG.ACC coffee
‘I give you coffee to drink.’ (YEK; elic. Jan. 24, 2024)

b. Au **’-ma-’-inu-t** *kofe* ’-ook koo.
1SG.NOM 1SG-DEOB-EPEN-drink-CAUS coffee 1SG-with 2SG.ACC
‘I give coffee to drink with you.’ (YEK; elic. Jan. 24, 2024)

c. Hita **t-ma-’-inu-t** *kofe*.
1PL.INC.NOM 1PL.INC-DEOB-EPEN-drink-CAUS coffee
‘We give each other coffee.’ (YEK; elic. Jan. 24, 2024)

(436) a. Ina **n-took**.
3SG.NOM 3-sit
'He/she sits.'
(YEK/NSK; elic. Oct. 27, 2021)

b. Iin **na-toko-b kau**.
3SG.NOM 3-sit-CAUS 1SG.ACC
'He/she seated me.'
(YEK/NSK; elic. Oct. 27, 2021)

c. Hita **t-ma-toko-b**.
1PL.INC.NOM 1PL.INC-DEOB-sit-CAUS
'We seat each other.'
(YEK/NSK; elic. Dec. 8, 2021)

d. Sina **n-ma-took-b**=in.
3PL 3-DEOB-sit-CAUS=PL
'They seat each other.'
(YEK/NSK; elic. Dec. 8, 2021)

I attribute the licensing of accusative case on the direct object to *fee* 'give' being an inherently ditransitive verb capable of assigning case in (434b-c), and I attribute the licensing of accusative case on the direct object of causativized *inut* 'give to drink' in (435) to the presence of Appl. Neither of these are present in the examples in (436c-d), so no object can be licensed in these.

I propose that accusative case is assigned by any head in the verbal complex that introduces a specifier, and some heads that do not. These heads, in all different configurations, include some combination of the version of active or "default" Voice that introduces agents, Appl which introduces the causees of causativized transitives, $v_{[+CAUS]}$ when it introduces non-agentive causers, and the small number of roots that inherently introduce recipient specifiers, including at least *fee* 'give' and *hao* 'feed'. In all cases, these heads assign accusative case to the closest DP in their c-command domain that has not received case. For Voice, Appl, and $v_{[+CAUS]}$, this means a DP introduced by a lower head. For roots, it means their complement.

The idea that heads in the verbal complex can assign accusative case to a lower head when they introduce a specifier derives from Adger (2003: 211-224), where he uses this idea to explain why the sole argument of unaccusative verbs does not receive accusative case, while the syntactically identical objects of transitive verbs do. In Adger (2003)'s system, a v head that introduces an external argument can assign accusative case to an internal argument, while a v head that does not introduce an external argument also cannot assign accusative case to an internal argument. Since Voice introduces external arguments in the system developed in this dissertation, these properties are instead correlated with Voice heads by analogy. This logic is then extended to other heads in the verbal complex that introduce arguments, including $v_{[+CAUS]}$ and certain roots.

Other heads can always assign case. The first of these is Appl. To account for the fact that direct objects remain in-situ in causativized transitives like (435) when there is not clearly any argument introduced by Appl, I must posit that Appl can always assign accusative case to a DP in its c-command domain. Dative *=n* can also assign accusative case to 3rd-person indirect objects without introducing a specifier. In some cases this appears to be a necessary addition in order to allow the direct object to receive case (423c), while in others it is simply a choice made for reasons that are unclear to me at this time (429b vs. 430b). One can think of *=n* as functionally similar to English prepositions like *to*. It assigns accusative case, and it itself carries the dative meaning. Of course, it differs morphologically in being a verbal enclitic rather than an independent adposition.

In order to illustrate this analysis, we will start by returning to some examples discussed in section 2.3.3 that efficiently display the effects of the various accusative-case assigners. The relevant examples are repeated in (437)-(439).

(437) a. Piik'=e **m-pee'**.
plate=DEF 3-break
'The plate broke.' (YEK & NSK; elic. Mar. 30, 2022)

b. **Au** **'u-pe'a-'** pika'.
1SG.NOM 1SG-break-CAUS plate
'I broke the plate.' (YEK; elic. Mar. 30, 2022)

c. Context: There's a stone that's falling. The stone falls and hits the plate.
✓ **Faat=be** **na-pe'a-'** pika'.
stone=DEF 3-break-CAUS plate
'The stone broke the plate.' (YEK; elic. Mar. 30, 2022)

(438) a. **Yoakim** na-'-éku-t kau bolo mnaa'.
Yoakim 3-EPEN-eat-CAUS 1SG.ACC cake old
'Yoakim made me eat old cake.' (YEK & NSK; elic. May 25, 2022)

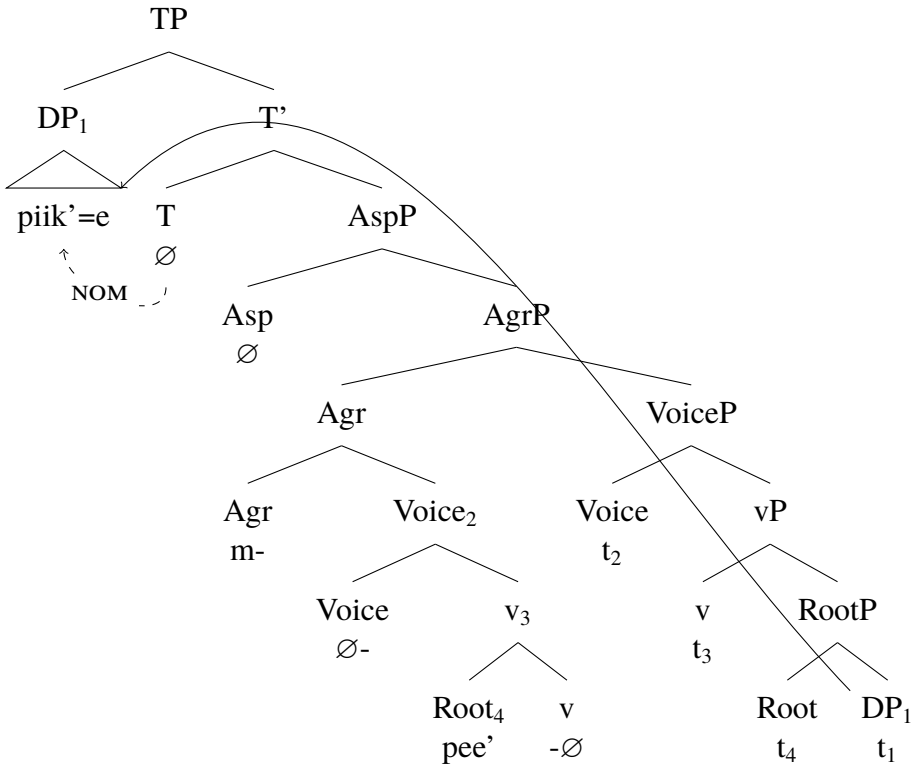
b. Context: There was a storm and a flood. Because of this, I cannot buy new cake. I have to eat old cake.
* **Uul upu** na-'-éku-t kau bolo mnaa'.
rain storm 3-EPEN-eat-CAUS 1SG.ACC cake old
Intended: 'The storm made me eat old cake.' (YEK & NSK; elic. May 25, 2022)

(439) a. **Au** 'u-hao-∅ koo mna-ha-∅ mnaa'.
1SG.NOM 1SG-feed-CAUS 2SG.ACC NMLZ-eat-NMLZ old
'I feed you old food.' (YEK; elic. Apr. 6, 2022)

b. Context: There was a storm and a flood. Because of this, you cannot buy new food. You have to eat old food.
✓ **Uul upu** na-hao-∅ koo mna-ha-∅ mnaa'.
rain storm 3-feed-CAUS 2SG.ACC NMLZ-eat-NMLZ old
'The storm made you eat old food.' (YEK; elic. Apr. 6, 2022)

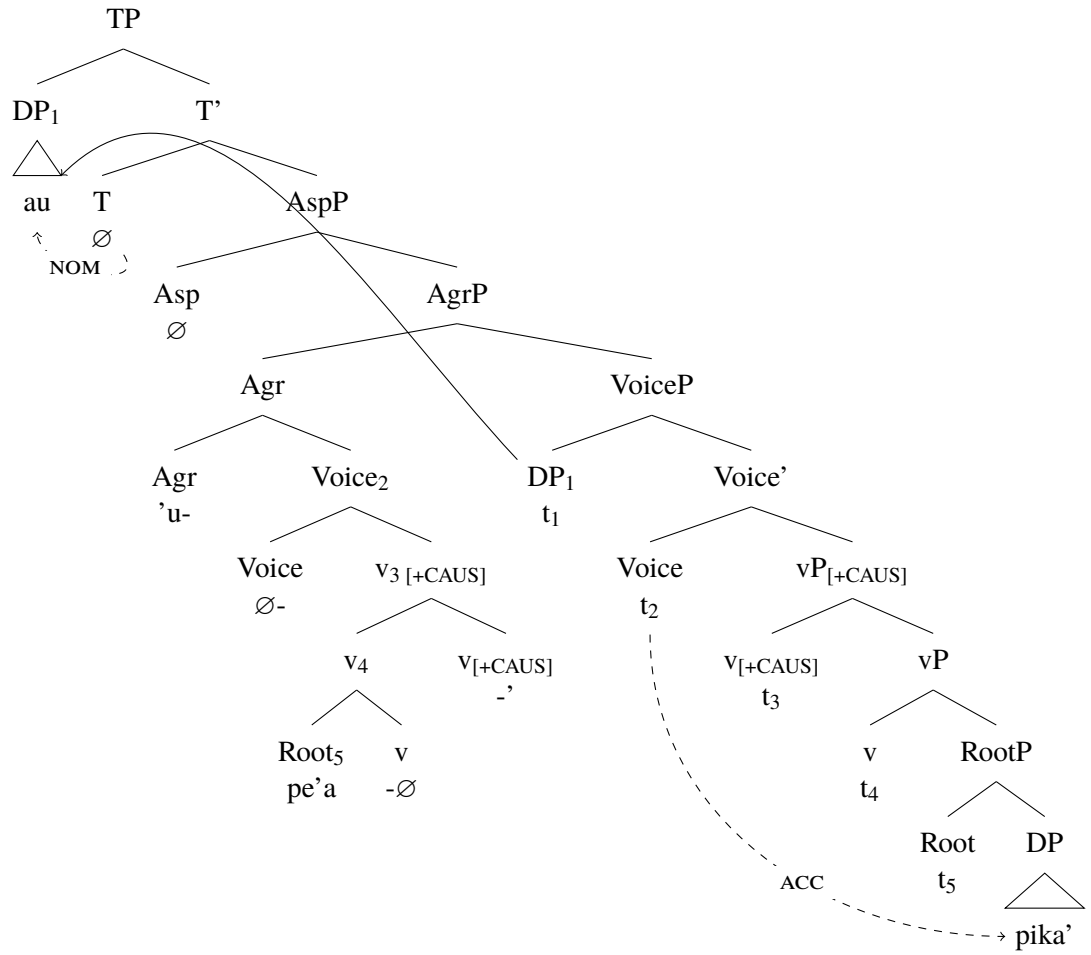
(437a) is an unaccusative structure. No external argument is present, so the only source of case in this clause is T. Thus, the DP moves to Spec,TP and receives nominative case there, as illustrated in (440). In this tree the solid arrow represents movement, and the dashed arrow represents case assignment from a head to a DP. Statives like those in (432b-c) are derived in the same way, but with stative *m(a)-* being the reason for the lack of accusative case assignment. One can see an illustration of a stative structure in (414).

(440)



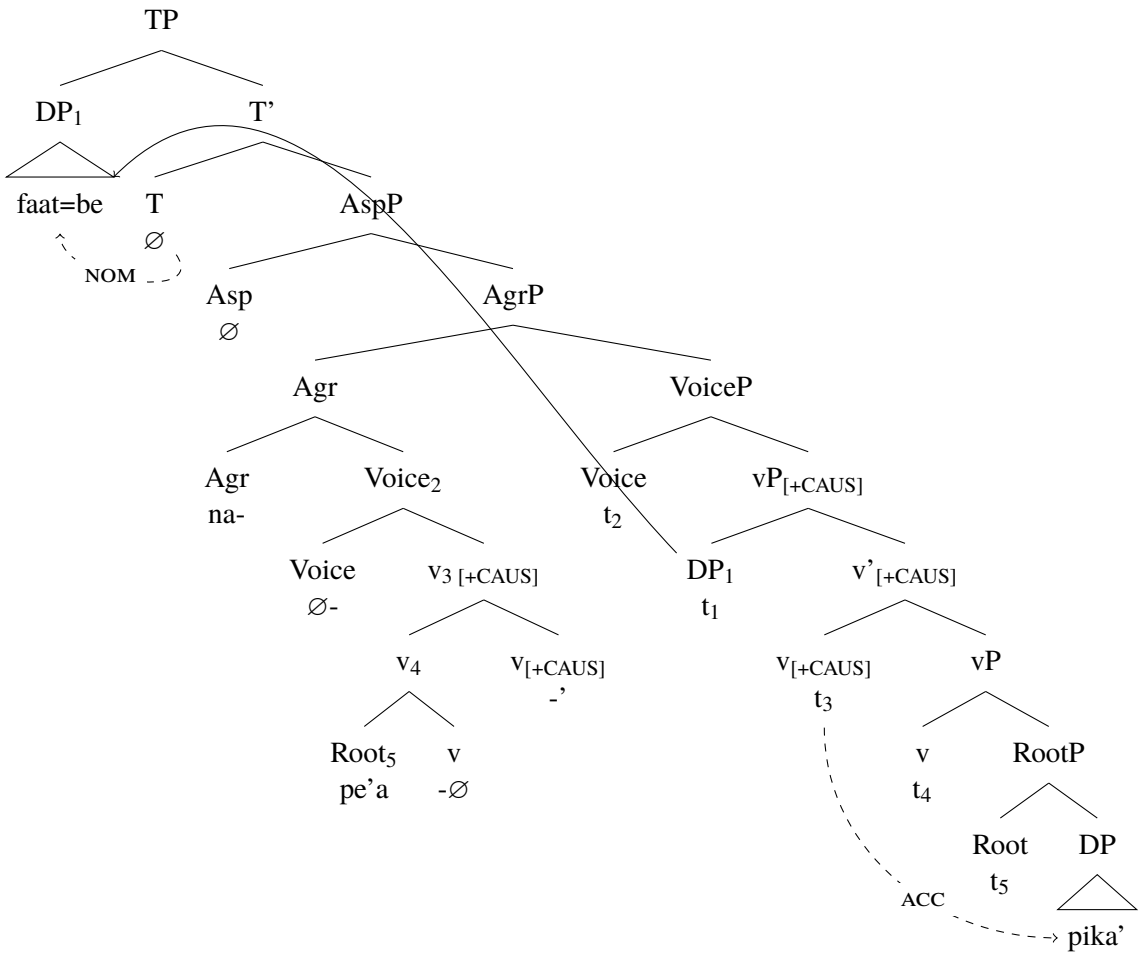
In a sentence like (437b), the case assigners are T and active Voice, T because T assigns nominative case, and active Voice because its introducing a specifier allows it to assign accusative case to a DP in its c-command domain. $v_{[+CAUS]}$ does not introduce a specifier in this sentence, so it does not assign case. This is illustrated in (441). The case assignment in typical monotransitive sentences with an agent and patient also proceeds like this. A tree with the typical monotransitive structure can be found in (385).

(441)



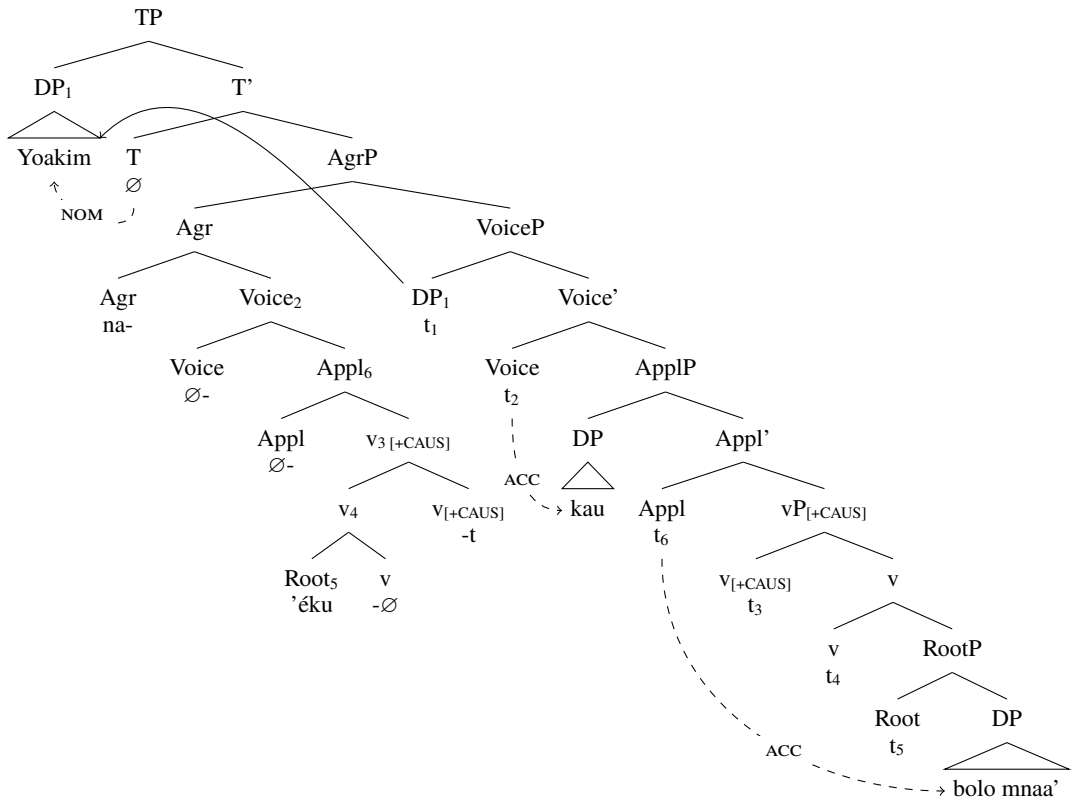
If the structure instead features a non-agentive causer introduced in Spec,$vP_{[+CAUS]}$, then $v_{[+CAUS]}$ assigns accusative case instead of active Voice, as shown in (442).

(442)



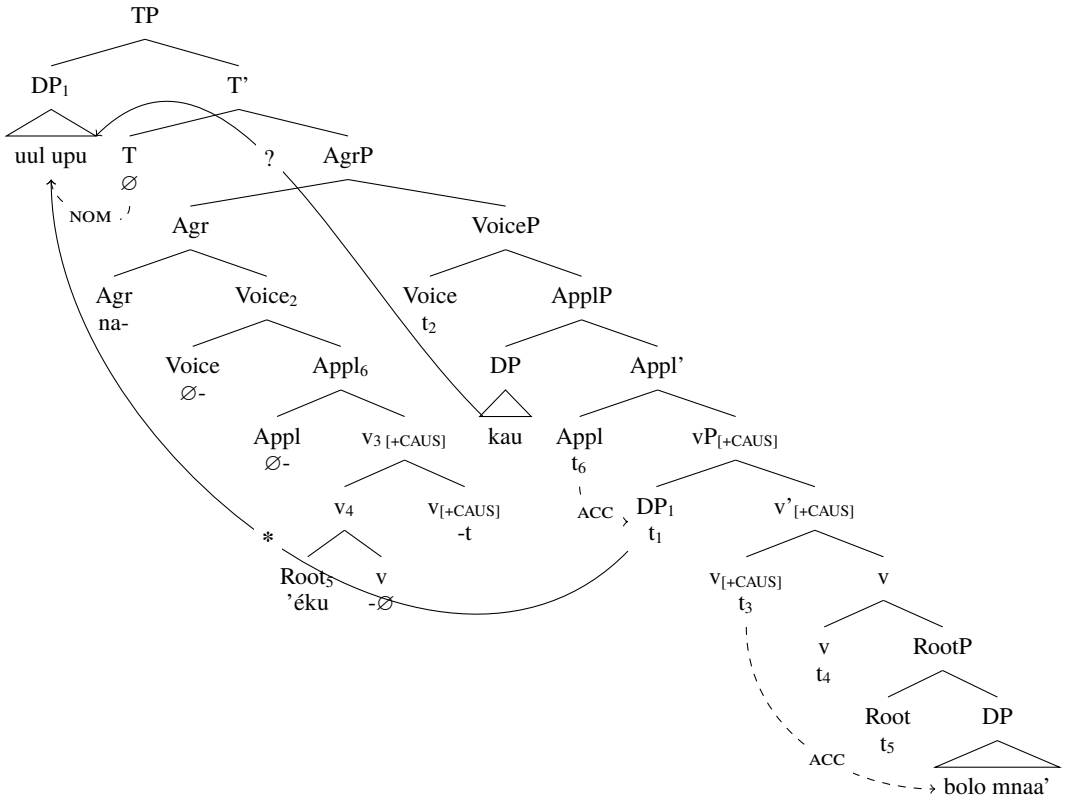
In a typical causativized transitive with an agent like (438a), the agent receives case from T, the causee receives case from Voice, and the patient receives case from Appl, as shown in (443).

(443)



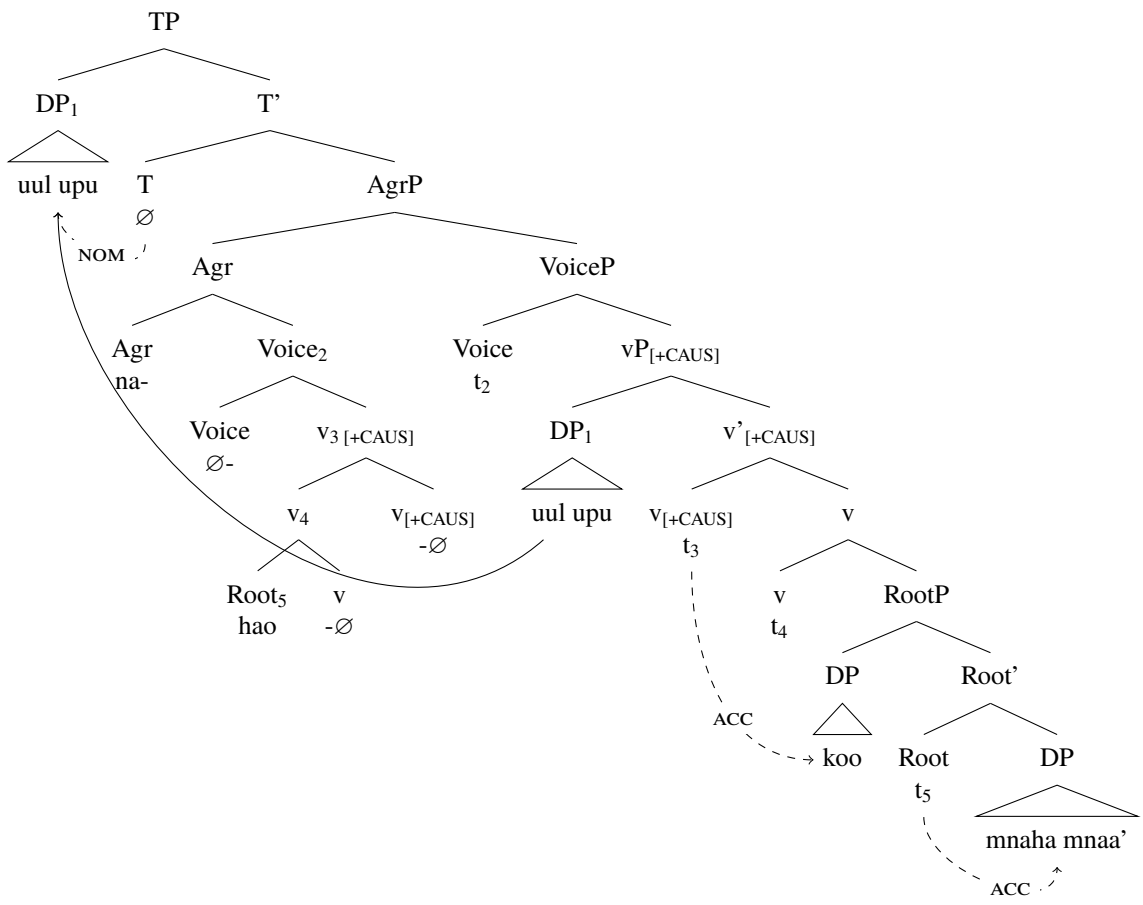
Non-agentive causers are impossible in sentences like this. If the causer moves to Spec,TP, this violates Relativized Minimality (Rizzi 1990), because the causer has moved instead of a higher causee in Appl. If the causer stays in situ, it receives accusative case from Appl, preventing from receiving nominative case from T. Based on the system posited here, the causee should be able to move to Spec,TP and receive nominative case. Voice does not introduce an external argument here, so it does not assign accusative case to the causee. I do not have the data at this time to confirm if this movement is possible or if something else rules it out.

(444)



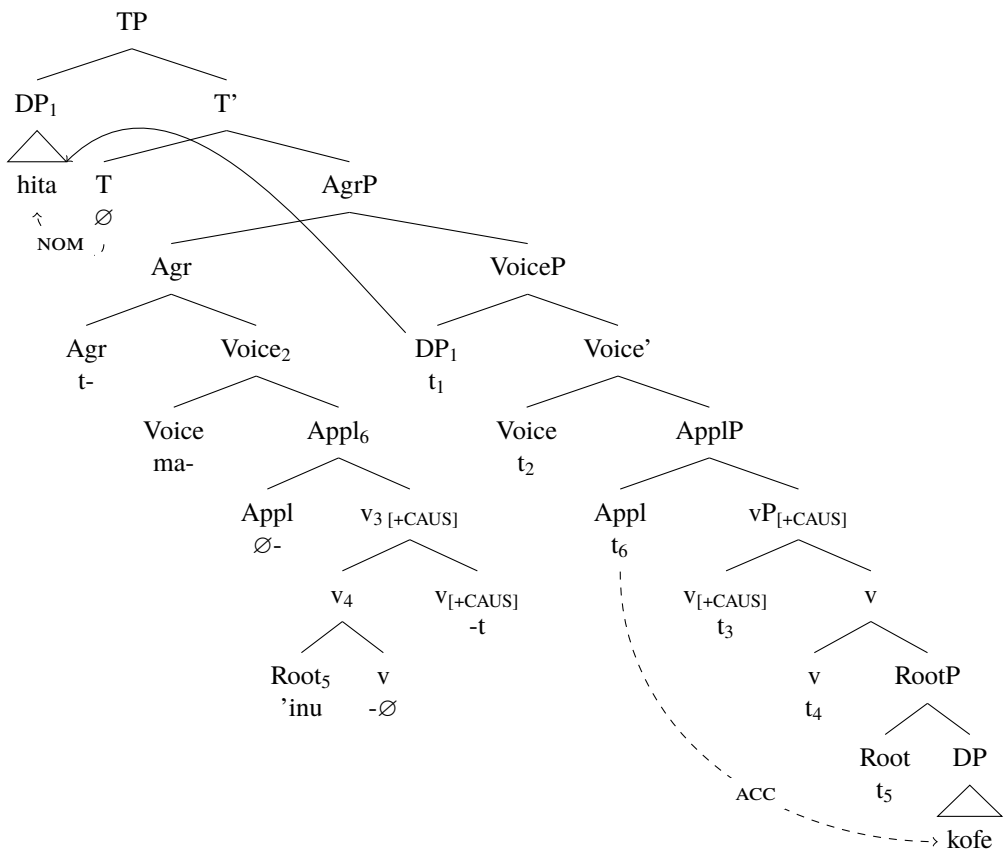
In a ditransitive configuration like (439b) where a root introduces the causee (or indirect object generally), rather than Appl, non-agentive causer subjects are possible, because there is no Appl present to assign accusative case to the causer. This allows the causer to move to Spec,TP to receive nominative case, as shown in (445). $v_{[+CAUS]}$ assigns case to the low recipient, and the root *hao* 'feed' itself assigns case to the patient. The same verb with an agentive subject (439a) assigns case in the same way, except that Voice assigns case to the recipient, rather than $v_{[+CAUS]}$, due to Voice introducing the external argument in that configuration.

(445)



If one were to replace active Voice with deobjective *ma-* in a causativized transitive, Appl can still assign case to the patient, because it is always able to assign case, but the argument that Appl itself would introduce cannot receive case, because *ma-* does not assign case. This creates the absence of a causee in sentences like (435c), shown in (446). If one were to instead replace active Voice with deobjective *ma-* in a normal monotransitive or a causativized unergative/unaccusative, then there is no Appl present to assign accusative case to the patient, thus creating the absence of the patient in the non-active sentences in (415), (416), and (436).

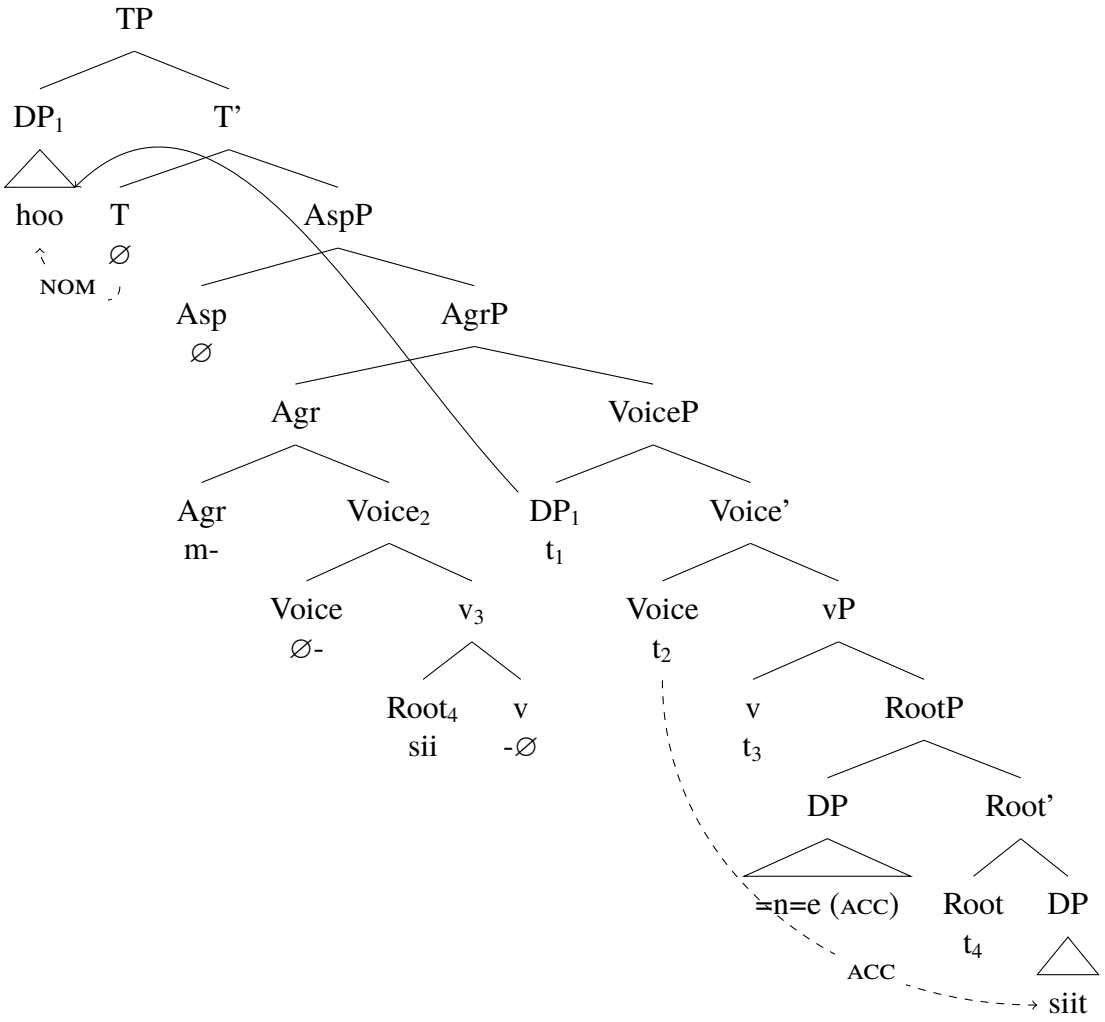
(446)



Finally, in cases where there is no head to license case on an indirect object, dative *=n* can assign case as a last resort. In order to account for the inability of *=n* to be used with 1st- and 2nd-person objects, in (447) I modify the allomorphy analysis of Tan (2023: 384) such that it is compatible with the features in Table 3.5. This analysis implies that the difference between sentences like (424b) and (428a) is one of allomorphy of *=n*, rather than a difference in case features. In both cases, T can assign nominative case to the subject, and Voice can assign accusative case to one lower object. If *=n* or its null allomorph assigns accusative case to the indirect object, then Voice can assign case to the direct object. This analysis is illustrated for (424b), where the *=n* is seemingly necessary, in (448). I am unsure where to place *=n* structurally, so I simply depict it as attaching to the indirect object, which I tentatively place in a root specifier position. This licensing allows Voice to skip past the indirect object and assign accusative case to the patient.

(447) a. [DAT] ⟷ =n / _ [−SPKR, −ADDR]
b. [DAT] ⟷ ∅ / elsewhere

(448)



Nominative case appears in a disparate set of environments. The examples discussed show T assigning nominative case to subjects, but nominative case also shows up on topicalized and focused pronouns and full DPs that are resumed by in-situ accusative pronouns, as well as possessors (423b,428b) and the objects of some preposition-like verbs with locative meanings (431a-c). I will use evidence from resumed topics and foci to justify the existence of a Spec,TP position associated with subjects but not Ā-fronted objects, which appear to receive nominative case as a default. Possessors and the objects of locative verbs require a distinct treatment.

Nominative topics with accusative resumption are possible with both direct objects (449) and indirect objects (450). I describe the nominative pronouns as topicalized due to the fact that they do not control subject agreement, and they are not interpreted agentively. As discussed in section 4.3.2, these facts lead me to posit that these sentences contain a null impersonal 3rd-person agent that is syntactically present as the external argument. This is inspired by various analyses of the Polish impersonal construction (Landau 2010; Lavine 2005; Legate 2014). Examples like (411a) show that this null impersonal subject can alternate with an expression like *tuafe* 'someone'.

(449) a. ([**Hoo**]$_1$) *pro*$_{3SG}$ n-aem [**koo**]$_1$.
([2SG.NOM]$_1$) 3SG.NOM 3-look.for [2SG.ACC]$_1$
'You were being looked for.' / 'Someone was looking for you.'
(YEK; elic. Jan. 29, 2024)

b. [**Au**]$_1$ *pro*$_{3SG}$ n-keen [**kau**]$_1$.
[1SG.NOM]$_1$ 3SG.NOM 3-shoot [1SG.ACC]$_1$ meat=INCP
'I was shot.' / 'Someone shot me.' (SRB/YFB/YEK/NSK; elic. Jul. 2, 2022)

(450) a. [**Au**]$_1$ *pro*$_{3SG}$ n-fee [**kau**]$_1$ sisi=ben.
[1SG.NOM]$_1$ 3SG.NOM 3-give [1SG.ACC]$_1$ meat=INCP
'I was given meat.' (YEK; elic. Jan. 29, 2024)

b. [**Yoakim**]$_1$ *pro*$_{3SG}$ a|n-fee=n[**=e**]$_1$ sisi=ben.
[Yoakim]$_1$ 3SG.NOM EPEN|3-give=DAT[=3SG.ACC]$_1$ meat=INCP
'Yoakim was given meat.' (YEK; elic. Jan. 29, 2024)

Examples of focused objects are straightforward to discern because of the presence of an overt focus marker *esa*/*ees*. In cases like these, focused pronouns are mandatorily resumed with an accusative (451a-b). Focused full DPs can vary (451c vs. d).

(451) a. [**Au**]$_1$ ees iin n-éék *([**kau**]$_1$) n-óé uim menas.
[1SG.NOM]$_1$ FOC 3SG.NOM 3-bring *([1SG.ACC]$_1$) 3-to house sickness
'I was the one that he/she brought to the hospital.' (YEK/NSK; elic. Jul. 20, 2021)

b. [**Siin**]$_1$ ees au '-tuuf *([**siin**]$_1$).
[3PL]$_1$ FOC 1SG.NOM 1SG-hit *([3PL]$_1$)
'They are the ones that I hit.' (SRB; elic. Jul. 2, 2022)

c. [**Sekau**]$_1$ ees hoo mu-'éék[**=be**]$_1$?
[who]$_1$ FOC 2SG.NOM 2SG-meet[=3SG.ACC]$_1$
'Who is it that you met? (YEK/NSK/YFB; elic. Jun. 27, 2022)

d. [**Sekau**]$_1$ ees hoo mu-'éku t_1
[who]$_1$ FOC 2SG.NOM 2SG-meet t_1
'Who is it that you met? (YEK/NSK/YFB; elic. Jun. 27, 2022)

As shown by examples like (449a), it is possible to just have an in-situ pronominal object without doubling. Examples like (451a-b) even suggest that at least for pronouns, resumption is necessary. This is in start contrast to examples where the nominative argument agrees with the verb and accusative resumption is ungrammatical (452).

(452) a. Hoo mu-maas (*koo).
2SG.NOM 2SG-form (*2SG.ACC)
'You are beautiful.' (YEK; elic. Oct. 28, 2021)

b. Au ’-took (*kau).
1SG.NOM 1SG-sit (*1SG.ACC)
‘I sit.’ (grammatical example from Steinhauer (1993: 134), ungrammatical version from YEK/NSK; elic. Oct. 27, 2021)

c. Au ’-maof (*kau).
1SG.NOM 1SG-drunk (*1SG.ACC)
‘I am drunk.’ (YEK; elic. Oct. 28, 2021)

I attribute this difference to a difference in the positions through which the relevant DPs pass. DPs that A-move to Spec,TP and receive nominative case from T cannot be resumed with accusatives, while DPs that move directly from an object position to an Ā position can, and in some cases must, be resumed. The idea that these DPs are in different positions is clearly demonstrated for foci and subjects in (451), where there is a focused DP on the left periphery and a subject in Spec,TP. Examples like (453) help narrow down subject position to Spec,TP. This example features an overt T head, irrealis *he*. The subject that controls agreement precedes T, so it must at least be in Spec,TP. The subject is bound on the other side by a preceding focused DP. Thus, subjects are above T and below focus, and there is no evidence for anything between these heads.

(453) [**Saa’**]$_1$ **ees hoo** **he** m-soos[=e]$_1$?
[what]$_1$ FOC 2SG.NOM IRR 2SG-buy[=3SG.ACC]$_1$
‘What is it that you want to buy? (YEK; elic. Jun. 29, 2022)

Object Wh-questions typically have the Wh-word in-situ (454), but if it is fronted, the resumptive pronoun seems to serve the purpose of indicating where the Wh-word reconstructs in the clause. Though much less common, it is also possible to resume focused subjects with a nominative pronoun (455).

(454) a. Hoo mu-’éók **sekau**?
2SG.NOM 2SG-meet who
‘Who did you meet?
(YEK/NSK/YFB; elic. Jun. 25, 2022)

b. Hoo he m-soos **saa’**?
2SG.NOM IRR 2SG-buy what
‘What do you want to buy?
(YEK/NSK/SRB/YFB; elic. Jun. 29, 2022)

(455) [**Sekau**]$_1$ ees ([**iin**]$_1$) na-tiik kau?
[who]$_1$ FOC ([3SG.NOM]$_1$) 3-kick 1SG.ACC
‘Who kicked me?’ (YEK/NSK; elic. Jan. 12, 2022)

Lastly, it is possible to front both topics and foci. In these cases the topic precedes the focus, showing that topic position is distinct from subject position. In these constructions it is possible for there to be a resumptive object pronoun (456a), but it is not necessary (456b).

(456) a. [***Buuk*=be**]$_{TOP}$ [**sekau**]$_{FOC}$ esa t_{FOC} n-tui [**=je**]$_{TOP}$?
[book=DEF]$_{TOP}$ [who]$_{FOC}$ FOC t_{FOC} 3-write [=3SG.ACC]$_{TOP}$
‘The book was written by who?’ (More literally: ‘The book, who wrote it?’)
(YEK/NSK; elic. Aug. 4, 2021)

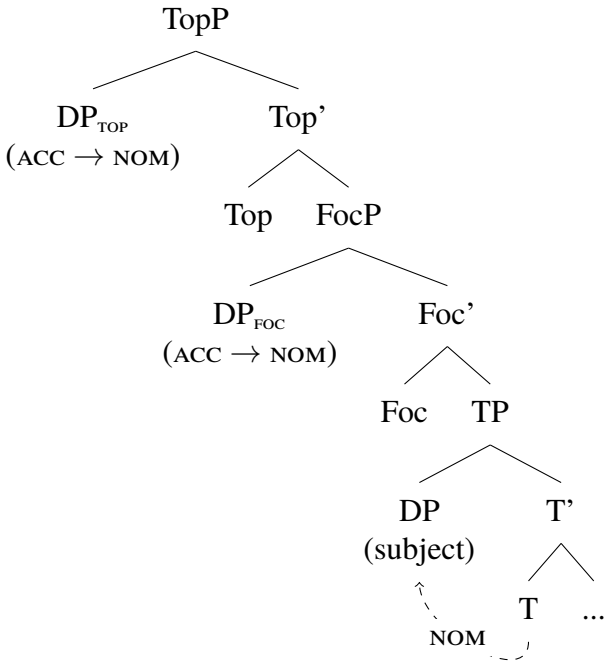
b. [**Le' fafi nae**]$_{\text{TOP}}$ [**iin**]$_{\text{FOC}}$ esa t_{FOC} n-keen t_{TOP}.
[REL pig DEM.DIST]$_{\text{TOP}}$ [3SG.NOM]$_{\text{FOC}}$ FOC t_{FOC} 3-shoot t_{TOP}
'The pig was shot by him.' (More literally: 'The one which is that pig, he shot.')
(YEK; AOZ2019-WORDLIST001, line 266)

The data in (449)-(456) reveal two ways of receiving nominative case. A DP can either be a subject and receive it from T in Spec,TP, or it can display it as a topicalized or focused DP. Resumption, which is obligatory for pronouns and optional for full DPs, reveals the structurally assigned case of the DP. There appears to be a restriction against accusative case in Ā positions. Tentatively, I propose an Impoverishment rule that deletes accusative case in the context of Ā features, shown in (457). The relevant environment is when the DP is in the specifier position of topic (Top) or focus (Foc). This is an extension of the impoverishment of ϕ-features in the context of Ā discussed at length in Baier (2018). Accusative is a more featurally complex case than nominative (Caha 2009), so removing the feature that makes accusative distinct from nominative leads to the insertion of nominative forms. This makes no difference to the form of full DPs or pronouns that are assigned nominative case by T, but is noticeable for pronouns that are assigned accusative case. I am unsure at this time of how to account for the patterns of resumption among topicalized and focused DPs, and I leave an account of this to future work. The takeaway from the discussion of nominative case presented so far is that it is assigned by T, so DPs that A-move to Spec,TP as subjects are directly assigned nominative case. Topicalized and focused objects display nominative case due to impoverishment, not due to being assigned nominative case. I suggest that these DPs are part of a movement chain such that the lower copy (if overt) demonstrates the accusative case that the DP receives from one of the accusative-case assigning heads. This accusative case assignment licenses the DP. This discussion of Top, Foc, T, and their case properties is summarized in the partial tree in (458).

(457) **Accusative impoverishment**

[ACC] $\longrightarrow$ [∅] / _ Ā

(458)



Possessors are also consistently marked with nominative case (423b,428b, 459). In order to account for this, I suggest that DPs that feature possessors also include a Poss head that introduces external possessors and attracts internal possessors to its specifier position. Poss assigns nominative case to these possessors, whether an inherent or derived specifier.

As discussed briefly at the end of section 3.4.4 and demonstrated through the paradigms in Table 3.7 and examples in (282), (283), and (284), Uab Meto has three classes of nouns with regards to possession marking. The majority of nouns do not agree with their possessor (284, 459a). Body parts and parts of wholes typically agree with their possessors in the inalienable paradigm (282, 459b), and kinship nouns agree with their possessors in a separate kinship paradigm (283, 459c). Possessors can stack in a left-branching structure (459d). Finally, both inalienable and kinship nouns take an *-f* suffix when the possessor is meant to be interpreted as an alienable possessor (459e) or when the noun is used generically and no possessor is expressed (459f). In all cases where present, possessors are marked with nominative case.

(459) a. **Au** **méép=be** *sofir* *oto*.
1SG.NOM work=DEF driver car
'My job is as a car driver.' (YEK; AOZ2019-MON001, line 9)

b. **au** **'naka-k**
1SG.NOM head-1SG.INAL
'my head' (Steinhauer 1996: 226)

c. **au** **feot-'=e**
1SG.NOM sister-1/2.KIN=DEF
'my sister' (YEK/NSK; elic. Mar. 23, 2022)

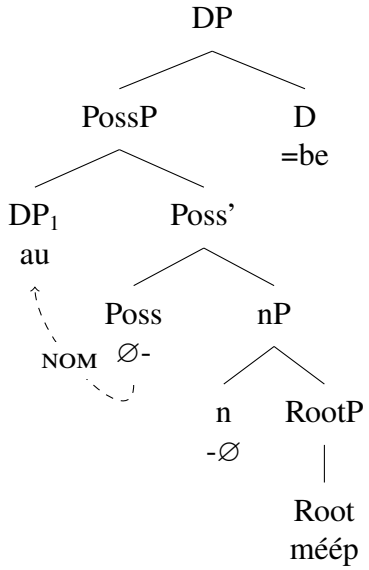
d. **Hai oom-'=es kaan-n=e** Liu.
1PL.EXC.NOM uncle-1/2.KIN=one name-3SG.INAL=DEF Liu
'The name of one of our uncles is Liu.' (YEK; AOZ2019-MON002, lines 58-59)

e. **au 'naka-f**
1SG.NOM head-INAL
'my head (the one that I just cut off)' (Steinhauer 1996: 227)

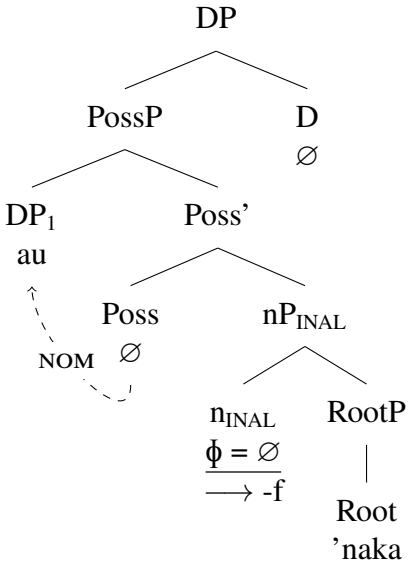
f. he t-ma-fuut **feto-f nao-f**
IRR 1PL.INC-DEOB-tie sister-KIN brother-KIN
'so that we have good relationships between brothers and sisters'
(KSF; AOZ2019-MON003, line 36)

Poss can assign nominative case to possessors in two ways. In the first type of situation, with external possessors, Poss simply assigns case to its specifier, as shown for the alienable noun *mépu/méup/méép* 'work' in (460). Poss also assigns case to the external possessor of externally possessed inalienable nouns like *'nakaf* 'head' (461) and kinship nouns. The different classes of nouns are created by combining with different n heads. Alienable nouns combine with a null n. Inalienable and kinship nouns combine with n heads for each of these classes. If they do not find an internal possessor in their c-command domain with which to agree, they spell out default *-f*.

(460)

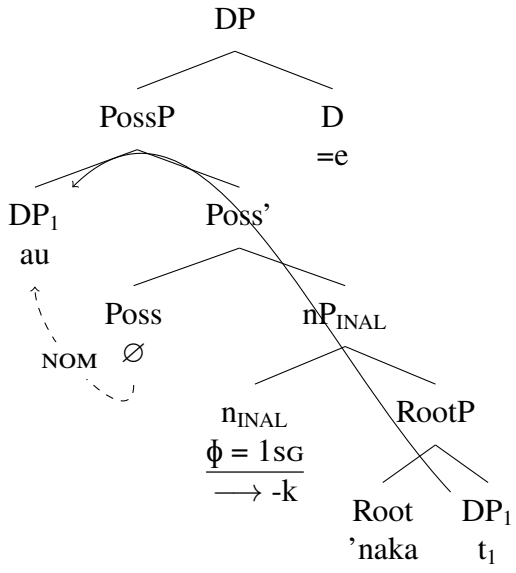


(461)

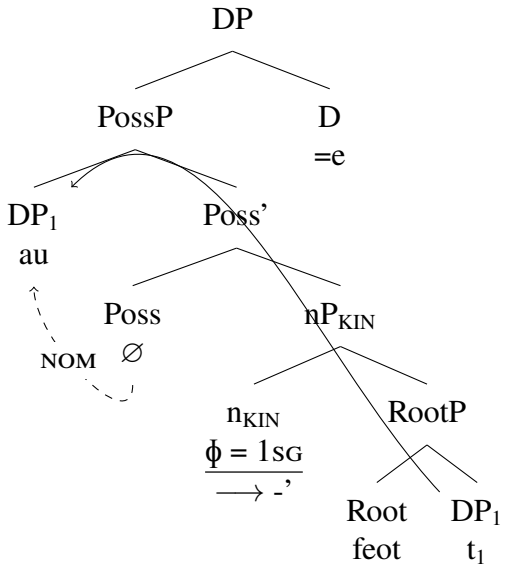


On the other hand, if inalienable nouns like *'nakak* 'head' (462) and kinship nouns like *feto'/feot'* 'sister' (463) find an internal possessor with which to agree, they spell out the appropriate form based on the ϕ-features they find. In these cases the internal possessor moves to Spec,PossP to receive nominative case.

(462)

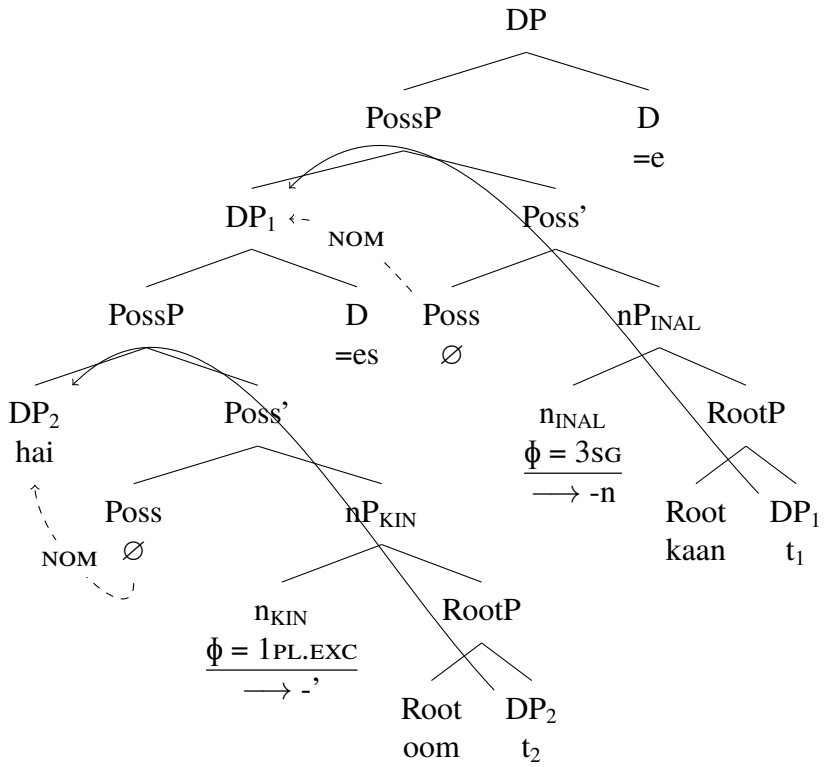


(463)



In a stacked possession configuration like (459d), the DP specifier of one Poss contains the other. The Poss in each possessive phrase assigns nominative case to the possessor within it. In this case there is also movement and agreement, because the possessed noun are kinship and inalienable. This is illustrated in (464).

(464)

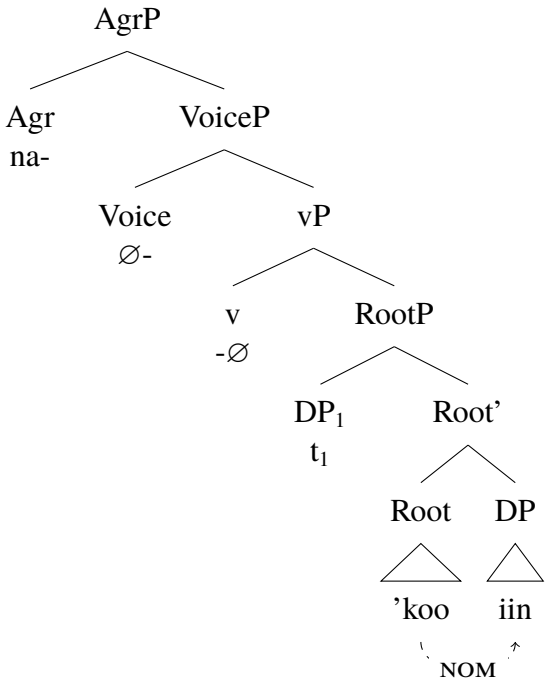


The last place in which one sees nominative case is the objects of a small class of locative verbs

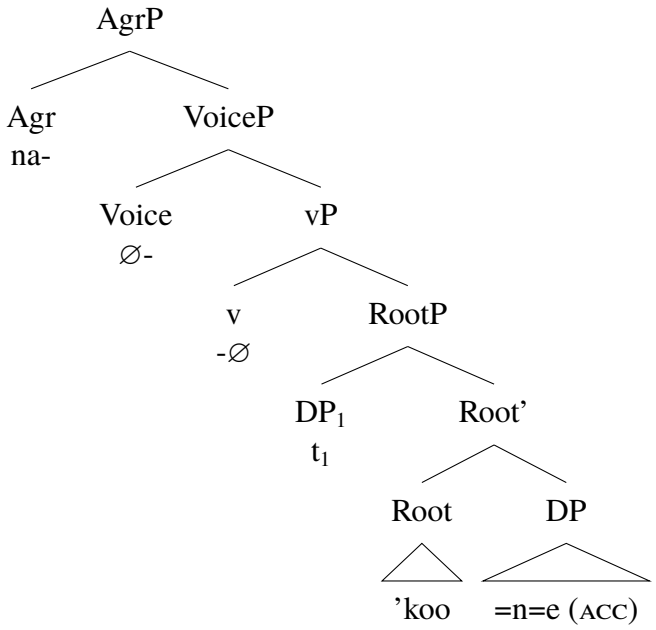
(422, 431a-c). I have the least to say about these, because I am not fully sure of the best way to analyze them. Despite potential exceptions like (431b), accusative case without *=n* generally seems ungrammatical on the objects of these verbs. This suggests that for 1st- and 2nd- person pronouns, the null allomorph of *=n* (447b) is present to license these when they are in their accusative form. Thus, there are two mysteries here, why these verbs cannot license accusative case on objects as most transitive verbs can, and why nominative objects are possible.

One way to explain this is with a variant on the explanation for the optionality of *=n* marking the indirect object of *fee* 'give'. At least two roots *fee* 'give' and *hao* 'feed' are able to assign accusative case to their complements. This allows their specifiers to receive accusative case from a higher head, as illustrated for *hao* in (445). However, examples like (429b) and (430b) show that *=n* can optionally assign accusative case to the indirect object in lieu of a head in the verbal complex. By analogy, one could say that these locative roots have specifiers and thus can assign case to their complements, but they exceptionally assign nominative case to them, or *=n* can step in and assign accusative case instead. This analysis is illustrated in (465) for the verb *'koo* 'from' in (431c). There may be some way to connect these exceptional case properties to something else exceptional about these verbs; they do not appear to exhibit voice alternations or causativization, for example, suggesting that they may lack these heads in their projection or have a different type of them.

(465) a.



b.



The specifier of the root cannot receive accusative case from any head in the verbal complex, so it must find case elsewhere. If it is generated within a non-initial verb following a transitive verb (466a), it can receive accusative case from something in the initial verb's verbal complex. If it is generated within a non-initial verb following an unaccusative verb that cannot assign accusative case (466c), or if is generated within the sole verb in the clause (466c), it can move to Spec,TP and receive nominative case. In (466a-b), this argument is clearly shared in some way with the initial verb. It is also an argument of the initial verb. I am unsure how precisely to relate the argument structures of the two verbal complexes beyond saying that they have an argument in common, which is a characteristic property of serial verb constructions (Cleary-Kemp 2015: 100).

(466) a. Hoo **mu-poi-n** **kau** **'u-'koo** ume.
2SG.NOM 2SG-exit-CAUS 1SG.ACC 1SG-from house
'You got me out of the house.' (YEK; elic. Feb. 23, 2022)

b. **Au** **'-poi** **'u-'koo** *skool*=e.
1SG.NOM 1SG-exit 1SG-from school=DEF
'I finished (primary) school.' (LTK; AOZ2019-MON011; line 2)

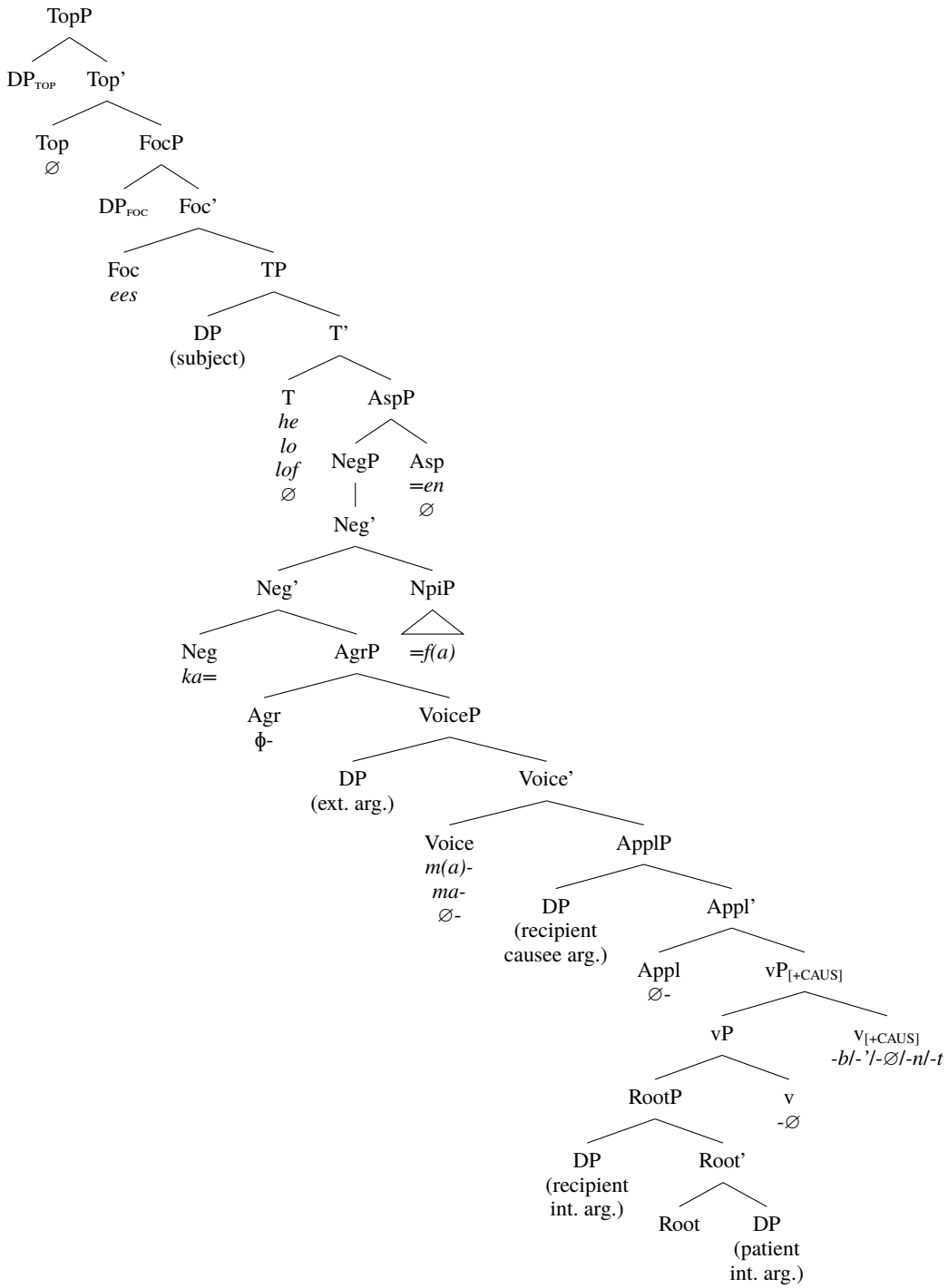
c. Au **'u-'koo** *desa* Oelneke.
1SG.NOM 1SG-from village Oelneke
'I am from the village of Oelneke.' (YEK; AOZ2019-MON002, line 3)

4.3.4 Putting it all together: The structure of the clausal spine

After discussion of negation and the various TAM elements in section 4.2 and discussion of topic, focus, Voice, Appl, v, and the root in sections 4.3.1-4.3.3, we now have a complete picture of the

clausal spine. The full proposed clause structure, including specific functional items, is illustrated in (467). The different Ā, TAM, and negation markers that we have seen in this chapter are: *ees*/*esa* (focus marker), *he* (irrealis marker), *lo* 'must', *lof* (future tense), *=en* (inceptive aspect), *ka=...=f(a)* (negation), *bisa* 'can', *be'i*/*bei'* 'be strong, capable', and *palu* 'need'. *bisa*, *be'i*/*bei'*, and *palu* are not shown in this tree because they pattern like verb roots syntactically, though they take verbal complements rather than DP ones. The affixes below agreement that we have seen are *m(a)-* (stative) and *ma-* (deobjective) in Voice and *-b*/*-'*/*-n*/*-∅*/*-t* in $v_{[+CAUS]}$. Top, Appl, and non-causative v are always null.

(467)



This structure leaves out some complexities that are irrelevant to this chapter but relevant to agreement-prefix allomorphy, discussed elsewhere in this dissertation. Chapter 2 proposes that there are several types of non-causative v, including some that combine with Root-n complex heads to derive denominal verbs. None of this affects the rest of the structure in (467) based on

the data seen in this chapter. In other words, this structure is slightly incomplete, but it is fully consistent with other parts of the dissertation.

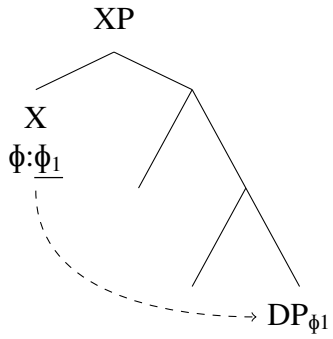
4.4 Analytical remainders: Why the ϕ-probe looks down, and why each verb has its own ϕ-probe

This section will discuss some analytical remainders associated with the verbal agreement system of Uab Meto. Section 4.4.1 will discuss why the agreement markers are analyzed as true verbal agreement rather than clitic doubling, also called "bound pronouns" or "pronominal affixes". With the agreement analysis established, section 4.4.2 will discuss why the ϕ-probe looks down into its c-command domain to find a DP with which to agree, rather than looking up, either exclusively or after looking down via a mechanism like cyclic Agree. Then, section 4.4.3 will discuss why each verb must have its own ϕ-probe and AgrP, rather than there being a mechanism like feature sharing between agreeing heads. In addition to ruling out alternative analyses, this section serves to compare and contrast Uab Meto agreement to agreement in other languages, putting it in a broader typological context. This section will show that Uab Meto agreement behaves like typical nominative-aligned agreement in most respects, but the low location of the ϕ-probe and its independence from case assignment allow for two things not typically seen with this type of agreement: 1. the possibility of non-initial and embedded verbs agreeing with accusative arguments (4.4.2) and 2. independent probing by each verb, which sometimes results in verbs in the same clause agreeing with different arguments (4.4.3).

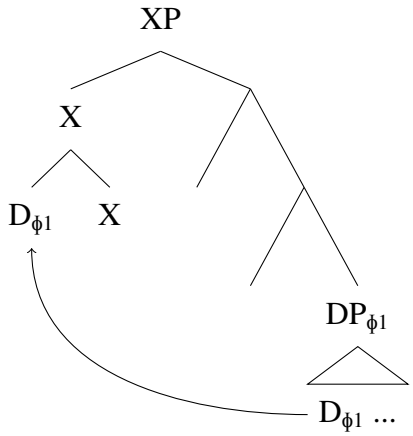
4.4.1 This is agreement, not clitic doubling

The analysis of Uab Meto agreement developed above is a probe-goal ϕ-agreement analysis. Agr is a functional head that containts a ϕ-probe. This ϕ-probe searches its c-command domain to find a DP goal with which to agree and copies person and number ϕ-features from it (Chomsky 2000, 2001). When Vocabulary Insertion occurs, an agreement prefix corresponding to these ϕ-features is inserted at the Agr node. Alternative analyses of agreement without a dedicated Agr node insert a morpheme corresponding to these ϕ-features directly on a head like T, Voice, or v. This way of expressing ϕ-features, namely "pure" or "true" agreement, contrasts with clitic doubling, where a D-head clitic attaches to some head in the clausal spine like T, Voice, or v. There are two general types of analyses of clitic doubling. In the first type, the clitic moves out of the DP that it doubles and cliticizes itself to some head outside of the doubled DP; this is often called the "big DP" hypothesis (Uriagereka 1995, Arregi & Nevins 2012). Alternatively, the clitic could be analyzed as being base-generated in its position cliticized to some head; in this case it is made to co-refer with some DP via an agreement relation; one possible implementation is discussed in Baker & Kramer (2018). The difference between these three types of analyses is illustrated in (468) and (469), which are based on Coon (2017b: 103) and Yuan (2021: 154), and in (470), which is based on Baker & Kramer (2018: 1048). Solid arrows represent movement, while dashed arrows represent agreement between a probe and a goal.

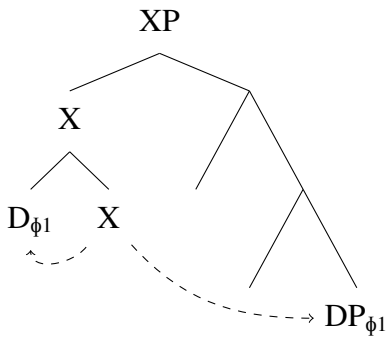
(468) True agreement



(469) Clitic doubling via movement



(470) Clitic doubling via agreement



Regardless of how a clitic comes to attach itself to a given head X, clitic doubling is syntactically differentiated from true agreement in that ϕ-features associated with some DP are realized on a D head, whereas with pure/true agreement the ϕ-features are realized on the ϕ-probe itself (Coon 2017b: 103-104, Kramer 2014: 596-598). This difference has morphophonological and semantic correlates. According to all these diagnostics, Uab Meto has true agreement.

There are multiple morphophonological properties that show that Uab Meto has true agreement and not any form of clitic doubling. The first is that, as noted above, Uab Meto agreement prefixes are subject to allomorphy between asyllabic and syllabic forms, and this allomorphy is conditioned by every component of the verbal complex, including the root, v, and Voice. Furthermore, some of this allomorphy is lexically and grammatically conditioned. Allomorphy conditioned by the stem in these ways is common with inflectional affixes, but less typical with D-head clitics (Zwicky & Pullum 1983, Nevins 2011, Kramer 2014). The different types of allomorphy are discussed below.

As seen in Table 1.4, Uab Meto has two sets of subject agreement prefixes, an asyllabic set without vowels and a syllabic set with vowels. Allomorphy between the two sets is conditioned in different ways by the root, $v_{[+CAUS]}$, and Voice. If the prefix attaches to a stem just containing an overt root, then the allomorphy is partially phonologically conditioned. All V-initial roots take the asyllabic prefixes (471), and all CC-initial roots take the syllabic ones (472).

(471) a. Iin **n-o'en** kau, **n-aak** Lamber?
3SG.NOM 3-call 1SG.ACC 3-say Lamber
'He called me, said "Lamber"?' (LTK; AOZ2019-MON011, line 173)

b. Au neon unu' le' au **'-ita** bnao kolo.
1SG.NOM day first REL 1SG.NOM 1SG-see boat bird
'(That was) my first time that I saw an airplane.' (YAF; AOZ2019-MON004, line 61)

(472) a. Iin **na-snaas**.
3SG.NOM 3-breathe
'He stopped.'
(YAF; AOZ2019-MON004, line 313)

b. Au **'u-'koo** *desa* Oelneke.
1SG.NOM 1SG-from village Oelneke
'I am from the village of Oelneke.'
(YEK; AOZ2019-MON002, line 3)

Among CV-initial verb roots, the majority take the asyllabic prefixes, about 75% in the Kotos Amarasi dialect corpus of Edwards (2020: 440). Here the choice between the two sets can be lexically idiosyncratic. As an example, two transitive verbs *tui* 'write' and *tuin* 'follow' that differ only in having a coda [n] take prefixes from different sets (473).

(473) a. Au **'-tui** au kaan-k=e.
1SG.NOM 1SG-write 1SG.NOM name-1SG.INAL=DEF
'I wrote my name.' (YEK; elic. Nov. 24, 2019)

b. Au **'u-tuin** *lomba* '-bii Jakarta.
1SG.NOM 1SG-follow contest 1SG-RLS.LOC Jakarta
'I joined the contest in Jakarta.' (YAF; AOZ2019-MON004, line 78)

Agreement allomorphy also extends beyond the usual agreement prefix allomorphs. There is one very irregular verb in the language, *Vma/VVm* 'come', which dispels with many of the usual prefixes, showing agreement primarily through vowel changes (474). Lexically conditioned allomorphy of a particular marker (473), or even dispelling with a certain paradigm of markers entirely (474), is more typical of inflectional affixes than clitics (Zwicky & Pullum 1983: 505).

(474) a. Au **óóm**.
1SG.NOM 1SG.come
'I come.' (YEK; elic. Jul. 15, 2019)

b. Hoo **óóm**.
2SG.NOM 2SG.come
'You (sg.) come.' (YEK; elic. Jul. 15, 2019)

c. Iin **n-eem/n-ema**.
3SG.NOM 3-come/3-come
'He/she/it comes.' (YEK; elic. Jul. 15, 2019)

d. Hiit **t-eem**.
1PL.INC.NOM 1PL.INC-come
'We (inc.) come.' (YEK; elic. Jul. 15, 2019)

e. Hai **éém**.
1PL.EXC.NOM 1PL.EXC.come
'We (exc.) come.' (YEK; elic. Jul. 15, 2019)

f. Hii **éém**.
2PL.NOM 2PL.come
'You (pl.) come.' (YEK; elic. Jul. 15, 2019)

g. Siin **n-eem/n-ema**=n.
3PL 3-come/3-come=PL
'They come.' (YEK; elic. Jul. 15, 2019)

$v_{[+CAUS]}$ also affects agreement prefix allomorphy. As discussed in section 4.3.1 and in chapter 3, verbs that normally take asyllabic prefixes take syllabic ones instead when they are causativized. Causativization often involves a suffix on the verb (390a-b, repeated as 475; also see other examples in the range 389-401). However, verbs like *mófu/móóf* 'fall' (392, 476), *mafu/maof* 'be dizzy, be drunk' (477), and *punu/puun* 'rot' (478) lack an overt causative suffix, showing that this allomorphy is grammatically conditioned, not phonologically conditioned.

(475) a. Au **'-sae**.
1SG.NOM 1SG-rise
'I rise.' (YEK; elic. Mar. 25, 2021)

b. Hoo **mu-sae-b** kau.
2SG.NOM 2SG-rise-CAUS 1SG.ACC
'You raise me.' (YEK; elic. Mar. 25, 2021)

(476) a. Au '-aak kaha', au ka= **'-móóf** =fa=t.
1SG.NOM 1SG-say NEG 1SG.NOM NEG= 1SG-fall =NEG=SET
'I said no, I did not fall.' (LTK; AOZ2019-MON011, line 175)

b. **Na-móóf-∅** n-aen iik'=e=t, n-oba aas=be fefa-n.
3-fall-CAUS 3-finish fish=DEF=SET 3-to dog=DEF mouth-3SG.INAL
'It dropped the fish, right into the dog's mouth.'
(AMF; AOZ2019-INS001; lines 30-31)

(477) a. Au **'-maof**.
1SG.NOM 1SG-dizzy
'I am drunk.'
(YEK; elic. Oct. 27, 2021)

b. Au **'u-maof-∅** koo.
1SG.NOM 1SG-dizzy-CAUS 2SG.ACC
'I make you drunk.'
(NSK; elic. Oct. 27, 2021)

(478) a. Mna-ha-t a|**n-puun**.
NMLZ-eat-NMLZ EPEN|3-rot
'Food rotted.'
(SRB/YFB; elic. Jun. 30, 2022)

b. Maans=e **na-puun-∅** sina mna-ha-t.
sun=DEF 3-rot-CAUS 3PL NMLZ-eat-NMLZ
'The sun rotted their food.'
(SRB/YFB/YEK/NSK; elic. Jul. 2, 2022)

The deobjective Voice head *ma-* can also affect the allomorphy of the agreement prefixes. As noted in chapter 3, all verbs with deobjective *ma-* take asyllabic prefixes. This includes verbs that normally take asyllabic prefixes (415a-b, repeated as 479), verbs that lexically select for syllabic

prefixes (480), and verbs with causative suffixes that would otherwise be expected to take syllabic prefixes (481). This allomorphy is phonologically conditioned. Edwards (2020: 441), Tan (2023: 98), and Lemon (2024b)/chapter 3 have different analyses of precisely how deobjective *ma-* prevents the selection of syllabic prefixes, but all agree the phonology is the crucial factor.

(479) a. Au **'-teop** koo.
1SG.NOM 1SG-hit 2SG.ACC
'I hit you.'
(YEK; elic. Jul. 28, 2021)

b. Hita **t-ma-teop**.
1PL.INC.NOM 1PL.INC-DEOB-hit
'We hit/fight each other.'
(YEK; elic. Aug. 11, 2021)

(480) a. Hiit **ta-tuin** fafi.
1PL.INC.NOM 1PL.INC-follow pig
'We follow a pig.'
(YEK; elic. Jan. 29, 2024)

b. Hita **t-ma-tuin**.
1PL.INC.NOM 1PL.INC-DEOB-heel
'We follow each other.'
(YEK; elic. Jan. 29, 2024)

(481) a. Ina **n-took**.
3SG.NOM 3-sit
'He/she sits.'
(YEK/NSK; elic. Oct. 27, 2021)

b. Iin **na-toko-b** kau.
3SG.NOM 3-sit-CAUS 1SG.ACC
'He/she seated me.'
(YEK/NSK; elic. Oct. 27, 2021)

c. Sina **n-ma-took-b**=in.
3PL 3-DEOB-sit-CAUS=PL
'They seat each other.'
(YEK/NSK; elic. Dec. 8, 2021)

Clitics that show allomorphy according to the phonological features of their host have been observed in a number of languages, so it is not particularly surprising to see the choice of asyllabic agreement prefixes for V-initial roots, syllabic prefixes for CC-initial roots, and asyllabic prefixes for stems lengthened with deobjective *ma-*. However, lexically and grammatically conditioned allomorphy on clitics is much rarer. Showing such allomorphy has been proposed as a diagnostic for true agreement. Regarding lexically conditioned allomorphy, Zwicky & Pullum (1983: 505) state that "morphophonological idiosyncracies" are common with affixation and inflection more generally, citing irregular English plurals like *dice*, *oxen*, and *feet*. Regarding grammatically conditioned allomorphy, Nevins (2011: 958-960) proposes that clitics do not show allomorphy according to tense, while agreement affixes potentially can. The logic is that if true agreement expones ϕ-features on tense, it should be able to exhibit allomorphy based on features of that functional head. Kramer (2014: 606-609) expands upon this, saying that agreement markers can vary according to features on verbal functional elements like tense, aspect, mood and voice. For example, Spanish subject agreement markers vary according to tense, aspect, and mood, but object clitics do not (482)[11]. In Amharic (Semitic: Ethiopia), subject agreement markers vary according to aspect (a possible locus of subject agreement in that language), but object clitics do not vary according to features

[11]These examples are based on but not identical to examples in Kramer (2014: 606).

on any verbal functional element (483). Allomorphy associated with object clitics is limited to epenthesizing a vowel when they attach to a C-final stem (Kramer 2014: 607).

(482) a. **te=** ayud**-o**
2SG.OBJ= help-1SG.PRES.IPFV.IND
'I am helping you'

b. **te=** ayud**-aba**
2SG.OBJ= help-1SG.PAST.IPFV.IND
'I was helping you'

c. **te=** ayud**-é**
2SG.OBJ= help-1SG.PAST.PFV.IND
'I helped you'

d. **te=** ayud**-e**
2SG.OBJ= help-1SG.PRES.IPFV.SJV
'I help you' (subjunctive)

(483) a. säbbär**-ä=h**
break.PERF-3SG.MASC.SUB=2SG.MASC.OBJ
'he broke you' (perfect) (Kramer 2014: 607)

b. **yɨ-**säbr**=ɨh**
3SG.MASC.SUB-break.IMPF=2SG.MASC.OBJ
'he was breaking you' (imperfect) (Kramer 2014: 607)

In Spanish and Amharic, the agreement markers that vary according to tense, aspect, and/or mood are typically analyzed as being located on the heads whose features condition their allomorphy. By contrast, the Agr head that I have posited to handle agreement in Uab Meto is not fused with any other functional head. Regardless, Agr is still a functional head in the verbal complex, and agreement allomorphs can vary in form according to features of other heads in the verbal complex. Uab Meto manifests agreement in a distinct way morphologically, but its allomorphy is consistent with its being analyzed as true agreement.

The second morphophonological property that shows that Uab Meto has true agreement is that its agreement is mandatory. With the exception of *bisa* 'can' (362f), which was originally a loan from Malay/Indonesian, all verbs require agreement[12]; some examples are provided in (484). Be-

[12]In addition to optional agreement on *bisa* 'can', there are two further caveats to the assertion that all verbs mandatorily agree. The first is that there are two locative markers, *es* (1) and *on* (2), which do not agree. The reason for their lack of agreement remains mysterious. They may simply be lexical exceptions, or they may not be verbs.

(1) Au 'u-tae '-aak a hoo **es** mee? N-aak au **es**|a bnapa-f.
1SG.NOM 1SG-answer 1SG-say Q 2SG.NOM IPFV.LOC which 3-say 1SG.NOM IPFV.LOC|EPEN rib-INAL
'I answered, "Where are you?" He said, "I'm on a cliff."' (LTK; AOZ2019-MON011, line 174)

(2) a. Hai m-nao **on** nasi.
1PL.NOM.EXC 1PL.EXC-go IRR.LOC forest
'We went to the forest.'
(YEK; AOZ2019-MON002, line 40)

b. Au '-nao **on** Jakarta le' nane.
1SG.NOM 1SG-go IRR.LOC Jakarta REL DEM.DIST
'I went to Jakarta there.'
(YAF; AOZ2019-MON004, line 60)

The second caveat is that agreement prefixes are sometimes elided at the beginning of an utterance due to a general prohibition on tautosyllabic consonant clusters, despite what one might expect based on word boundaries. Speakers may pronounce initial CC clusters as they are (3a), epenthesize a vowel to resyllabify the prefix (3b), or delete the prefix (3c). Consultant YAF does all three with the same lexical item in the same recording. See section 3.2.5 for discussion of why this variation is due to Uab Meto phonology, rather than anything about the morphosyntax of the language.

cause of this requirement, default 3rd-person agreement occurs when there is no controller, both in dictionary entries (485a-b) and wordlist elicitation contexts (485c-d). The obligatoriness of agreement and the appearance of default ϕ-features when an agreement relationship cannot be established are characteristic of true agreement, not clitic doubling (Preminger 2009, Kramer 2014). A functional head that hosts agreement must expone something, but clitics are typically optional.

(484) a. Hoo *(**mu-**)sae-b kau.
2SG.NOM *(2SG-)go.up-CAUS 1SG.ACC
'You raise me.'
(YEK; elic. May 19, 2021)

b. Ina *(**n-**)móóf. *Iin móóf.
3SG.NOM *(3-)fall
'He fell.'
(YEK; elic. May 20, 2021)

(485) a. **n-**hae
3-tired
'tired, exhausted'
(Manhitu 2007: 6)

b. **n-**tahan
3-endure
'durable, lasting'
(Manhitu 2007: 2)

c. **na-**baak
3-steal
'steal'
(YEK; AOZ2019-WORDLIST001, line 72)

d. **na-**leok
3-good
'good'
YEK; AOZ2019-WORDLIST001, line 165)

The morphological obligatoriness of Uab Meto agreement relates to semantic properties that show that Uab Meto has true agreement rather than any form of clitic doubling. As has been noted in previous work (Evans 2002, Mithun 2003, Kramer 2014, Baker & Kramer 2018, Yuan 2021, among others), clitic doubling often comes with semantic restrictions on where it can occur. For example, in Amharic, definite objects and D-linked *wh*-objects trigger optional object clitic doubling (486), but "less than fully referential" DPs, including non-specific indefinite DPs (487a), non D-linked *wh*-DPs (487b), universally quantified DPs (487c), and reflexive anaphors (487d) do not trigger object clitic doubling (Baker & Kramer 2018: 1037). The reason that these DPs cannot be clitic doubled is because clitics are assumed to be pronominal in nature, manifesting syntactically as D heads. They act as pronouns syntactically, and therefore they also act as pronouns semantically. Pronouns typically designate definite (or at least specific) referents (Evans 2002: 16-17, Yuan 2021: 167), leading to semantic incompatibility when they are meant to be coindexed with non-referential DPs like the objects in (487).

---

(3) a. M-bii ii hai on t-aka m-bii Oelneke.
3-RLS.LOC DEM.PROX 1PL.EXC.NOM IRR.LOC 1PL.INC-say 1PL.EXC-RLS.LOC Oelneke
'Here (we say that) we are in Oelneke.' (YAF; AOZ2019-MON004, lines 136-137)

b. A|m-bii ii=je msa' ...
EPEN|3-RLS.LOC DEM.PROX=DEF also ...
'Here there is also...'
(YAF; AOZ2019-MON004, line 191)

c. ∅-bii Oelneke ii=je msa' ...
3-RLS.LOC Oelneke DEM.PROX=DEF also ...
'In Oelneke here there is also...'
(YAF; AOZ2019-MON004, line 178)

(486) a. Almaz tämmari-w-ɨn ayy-ätʃtʃ**(=ɨw)**.
Almaz.FEM student-DEF.MASC-ACC see-3SG.FEM.SUB(=3SG.MASC.OBJ)
'Almaz saw the male student.' (Kramer 2014: 601)

b. Almaz tɨnant yätɨñnaw-ɨn tämari ayy-ätʃtʃ**(=ɨw)**?
Almaz.FEM yesterday which-ACC student see-3SG.FEM.SUB(=3SG.MASC.OBJ)
'Which student did Almaz see yesterday?' (Kramer 2014: 601)

(487) a. Almaz doro wät' bäll-ätʃtʃ**(*=ɨw)**.
Almaz.FEM chicken stew eat-3SG.FEM.SUB(*=3SG.MASC.OBJ)
'Almaz ate chicken stew.' (Kramer 2014: 601)

b. Girma tɨnant männ-ɨn ayy-ä**(*=w)**?
Girma.MASC yesterday who-ACC see-3SG.MASC.SUB(*=3SG.MASC.OBJ)
'Who did Girma see yesterday?' (Kramer 2014: 601)

c. Lämma hullu-n-ɨmm säw ayy-ä**(*=w)**.
Lemma.MASC every-ACC-FOC person see.PFV-3SG.MASC.SUB(*=3SG.MASC.OBJ)
'Lemma saw everyone.' (Baker & Kramer 2018: 1037)

d. Lämma ras-u-n gäddäl-ä**(*=w)**.
Lemma.MASC self-his-ACC kill.PFV-3SG.MASC.SUB(*=3SG.MASC.OBJ)
'Lemma killed himself.' (Baker & Kramer 2018: 1037)

Notably, these "less than fully referential" DPs that cannot be clitic doubled *can* control subject agreement (488). Though there are semantic restrictions on clitic doubling in Amharic, there are no semantic restrictions on agreement. ϕ-agreement on a functional head only cares about ϕ-features like person and number, something which all DPs have, regardless of referentiality.

(488) a. Hullu-mm set mät't'-**a**tʃtʃ.
every-FOC woman.FEM come.PFV-3SG.FEM.SUB
'Every woman came.' (Baker & Kramer 2018: 1039, citing Leslau 1995: 68)

b. Man mät't'-**a**?
who.MASC come.PFV-3SG.MASC.SUB
'Who came?' (Baker & Kramer 2018: 1039, citing Leslau 1995: 68)

A related set of semantic restrictions occurs in Inuktitut (Inuit: Canada), which shows an interesting contrast with the closely related Kalaallisut (Greenland). Yuan (2021) proposes that object markers on verbs arise via clitic doubling in Inuktitut, while nearly morphophonologically identical markers in Kalaallisut arise via true agreement. There is usually one portmanteau agreement marker on verbs in both languages. It may index only an absolutive subject (489a) or both an ergative subject and absolutive object (489b-c). There is also an antipassive construction in which the subject bears absolutive case and controls agreement, while the object bears "modalis" case and is not cross-referenced by the agreement marker (489c vs. 489d). The examples in (489) come from Inuktitut.

(489) a. Jaani ani-lauq**-tuq**.
Jaani.ABS leave-PAST-3SG.SUB
'Jaani left.' (Yuan 2021: 159)

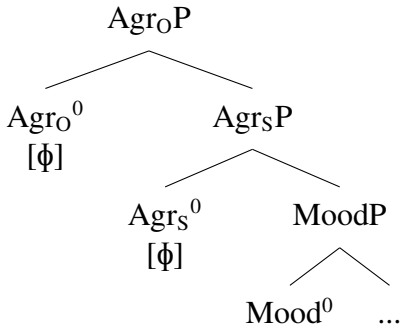
b. Niri-juma-lau-nngit**-tait**.
eat-want-PAST-NEG-2SG.SUB/3SG.OBJ
'You did not want to eat it.' (Yuan 2021: 158)

c. Qimmi-up Jaani kii-lauq**-tanga**.
dog-ERG Jaani.ABS bite-PAST-3SG.SUB/3SG.OBJ
'The dog bit Jaani.' (Yuan 2021: 159)

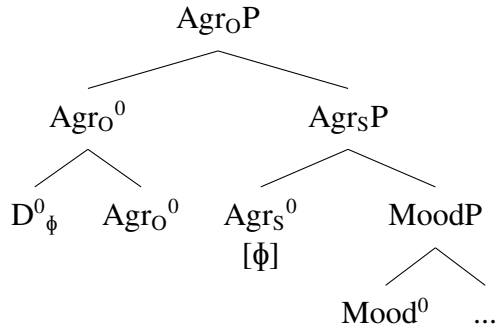
d. Qimmiq kii-si-lauq**-tuq** Jaani-mit.
dog-ABS bite-AP-PAST-3SG.SUB Jaani-MOD
'The dog bit Jaani.' (Yuan 2021: 159)

Yuan (2021) analyzes the portmanteau agreement markers in Inuktitut and Kalaallisut as being formed via separate ϕ-probing and/or clitic doubling processes on Agr_S and Agr_O heads, followed by the merger of these heads and Mood, all adjacent heads in the syntactic structure. The crucial difference between the two languages is that the object's ϕ-features are exponed on the Agr_O head itself in Kalaallisut (490a), while they are exponed on a D head adjoined to Agr_O in Inuktitut (490b).

(490) a. Kalaallisut (Yuan 2021: 168)



b. Inuktitut (Yuan 2021: 168)



Probing and/or clitic doubling and the morphological merger of $Agr_O{}^0$, $Agr_S{}^0$, $Mood^0$, and D^0 (D^0 only in Inuktitut) yield portmanteau suffixes in the two languages that are nearly identical in form and pattern morphophonologically like affixes in both cases (Yuan 2021: 175). However, the distinct derivations of the suffixes lead to different distributions. In Inuktitut, because the object's ϕ-features are exponed via a D head rather than true agreement, there are semantic effects. Like in Amharic, less referential DPs like quantified DPs and non-D-linked *wh*-DPs cannot engage in absolutive-object clitic doubling, as shown with the negative polarity item (NPI) in (491a). Such objects can only be expressed with modalis case marking in the antipassive construction (491b-c), which avoids clitic doubling. Notably, expressing a *wh*-object with absolutive case and the associated object clitic doubling forces a D-linked interpretation, as in (492).

(491) a. * Taku-lau-nngit-**tara** **kina=luunniit**.
see-PAST-NEG-1SG.SUB/3SG.OBJ who.ABS=or
Intended: 'I didn't see a single person.' (Yuan 2021: 163)

b. Taku-lau-nngit-**tuq** **kisu-mi=luunniit**.
see-PAST-NEG-3SG.SUBJ what-MOD=or
'She/He didn't see a single thing.' (Yuan 2021: 163)

c. **Kisu-mit** niri-guma-**vit**?
what-MOD eat-want-INT.2SG.SUB
'What do you want to eat?' (# 'Which one do you want to eat?') (Yuan 2021: 165)

(492) **Kisu** niri-guma-**viuk**?
what.ABS eat-want-INT.2SG.SUB/3SG.OBJ
'Which one do you want to eat?' (Yuan 2021: 165)

Crucially, these less referential DPs are able to control true agreement as absolutive subjects (493). Like in Amharic, there are semantic restrictions on clitic doubling in Inuktitut, but there are no semantic restrictions on true agreement.

(493) a. **Kina=luunniit** saqi-lau-nngit-**tuq**.
who.ABS=or show.up-PAST-NEG-3SG.SUB
'Not a single person showed up.' (Yuan 2021: 163)

b. **Kina=kiar**=imna uqaluq-tap-**paa** uvam-nut?
who.ABS=vague=DEM.PRON call-ITER-INT.3SG.SUB 1SG.ALLAT
'Who on earth keeps calling me?' (Yuan 2021: 165)

On the other hand, Yuan (2021) analyzes Kalaallisut as having true agreement for both subjects and objects. Because of this, its agreement can freely cross-reference both subjects (494a) and objects (494b) without the semantic restrictions that affect object clitic doubling in Inuktitut.

(494) a. **Atuagaq ataasir=luunniit** tiki-sima-nngi-**laq**.
book.ABS one.ABS=or come-PERF-NEG-3SG.SUB
'No book has come (yet).' (Yuan 2021: 162, citing Bittner 1994: 142)

b. **Kina=luunniit** taku-nngi-**laa**.
who.ABS=or see-NEG-3SG.SUB/3SG.OBJ
'He didn't see anyone.' (Yuan 2021: 162, citing Fortescue 1984: 138)

Uab Meto's agreement markers pattern like true agreement according to this diagnostic. Agreement is possible with non-referential DPs. In fact, like with other DPs, agreement remains obligatory. Of course, Uab Meto only has verbal agreement with subjects, so it is not possible to test agreement with reflexives, but Uab Meto has mandatory agreement with all the types of non-referential DPs that can act as subjects, including non-D-linked *wh*-DPs (495a), D-linked *wh*-DPs (495b), negative quantifiers (495c-d), universal quantifiers (495e), and non-specific indefinite DPs (495f).

(495) a. [**Sekau**] ees *(**na-**)tiik kau?
[who] FOC *(3-)kick 1SG.ACC
'Who kicked me?' (YEK/NSK; elic. Jan. 12, 2022)

b. [**Li'ana' mee**] ees *(**na-**)tiik koo?
[child which] FOC *(3-)kick 2SG.ACC
'Which child kicked you?' (YEK/NSK; elic. Jan. 19, 2022)

c. [**Ka= t-iit =fa es∼es**] *(**na-**)tiik kau.
[NEG= 1PL.INC-see =NEG one.RED∼one] *(3-)kick 1SG.ACC
'No one kicked me.' (More literally: One didn't see anyone who kicked me.')
(YEK/NSK; elic. Jan. 19, 2022)

d. [**Ka= n-mui' =fa es∼esa**] *(**n-**)lóim *(**n-**)éuk iik a-punu-t.
[NEG= 3-have =NEG one.RED∼one] *(3-)like *(3-)eat fish SUB.NMLZ-rotten-NMLZ
'No one likes to eat rotten fish.' (More literally: 'There is not anyone who likes to eat rotten fish.') (YEK; elic. Jan. 26, 2022)

e. [**Tua-f ok∼oke**] **n-**lóim **na-**ah siis manu.
[person-INAL all.RED∼all] 3-like 3-eat meat chicken
'Everyone likes to eat chicken.' (YEK; elic. Jan. 12, 2022)

f. Biasa [**tua-f=es ai' tua-f nua**] **neem** **n-**óé au *toko jam*=es.
usually [person-INAL=one or person-INAL two] 3.come 3-to 1SG.NOM store hour=one
'Usually one or two people come to my store each hour.' (NSK; elic. Jan. 12, 2022)

A second semantic restriction on clitic doubling in many languages is that independent pronouns and coindexed clitics cannot co-occur. True agreement does not have this restriction. As expected, Inuktitut and Kalaallisut diverge on this property with objects. Absolutive (496a) and ergative (496b) subject pronouns that control true subject agreement can co-occur with that agreement in Inuktitut, but absolutive object pronouns (496c) cannot occur with a coindexed clitic. In Kalaallisut, overt pronouns are able to agree in all positions (497), including as absolutive objects (497c).

(496) a. (**Uvanga**) taku-**junga** surusim-mit.
(1SG.ABS) see-1SG.SUB child-MOD
'I saw the child.' (Yuan 2021: 170)

b. (**Uvanga**) Jaani ilisaiji-gi-**jara**.
(1SG.ERG) Jaani.ABS teacher-have.as-1SG.SUB/3SG.OBJ
'I have Jaani as a teacher.' (Yuan 2021: 170)

c. Jamesi-up (*__uvanga__) taku-qqau-**jaanga**.
Jamesie-ERG (*1SG.ABS) see-REC.PAST-3SG.SUB/1SG.OBJ
'Jamesie saw me.' (Yuan 2021: 170)

(497) a. **Uanga** Nuum-mi inunngor-**vunga**.
1SG.ABS Nuuk-LOC be.born-1SG.SUB
'I was born in Nuuk.' (Yuan 2021: 170, citing Berge 1997: 371)

b. **Uanga** eqqaama**-vara**
1SG.ERG remember-IND.1SG.SUB/3SG.OBJ
umiaasa-qa-raluar-poq.
little.flat.bottomed.rowboat-have-CONS-3SG.SUB
'I remember it had little flat-bottomed rowboats.'
(Yuan 2021: 170, citing Berge 1997: 296)

c. ... **uanga** cigaritsi-p aju-le**-raminga**.
... 1SG.ABS cigarette-ERG be.bad-begin-3SG.SUB/1SG.OBJ
'(I stopped smoking,) Cigarettes didn't like me anymore.'
(Yuan 2021: 170, citing Berge 1997: 415)

The examples and associated properties that we have seen so far are logically consistent with two hypotheses. They could be demonstrating differences between clitic doubling and agreement, or they could be demonstrating differences between subject clitic doubling/agreement and object clitic doubling/agreement. To show that these properties are really a diagnostic of clitichood vs. agreement, and not of subject vs. object, I now turn to Dhao, a Central Malayo-Polynesian language spoken on the island of Ndao, close to Uab Meto on Timor. Dhao is revealing in this respect, because it has independent pronouns, subject clitics, and subject agreement affixes whose distribution mirrors the Inuit pattern above. Agreement is fairly limited in Dhao. Only 8 V-initial verbs take agreement prefixes, *a'a* 'eat', *are* 'take', *e'a* 'know', *èdhi* 'see', *èti* 'bring', *o'o* 'want', *inu* 'drink', and *èd'u* 'hold', and only *la* 'go' takes agreement suffixes (Balukh 2015: 108). Non-agreeing (498) and agreeing (499) verbs can have pronominal subjects expressed either via an independent pronoun or clitic. Agreeing verbs can also have only an agreement affix (500).

(498) a. **Èdhi tao** rèu sabha.
1PL.INC make leaf water.container
'We took palm leaves.' (Balukh 2020: 89)

b. **Ti=tao** rèu sabha.
1PL.INC=make leaf water.container
'We took palm leaves.' (Balukh 2020: 89)

c. **Rèngu mai** heka.
3PL come no.more
'They did not come anymore.' (Balukh 2015: 107)

d. **Ra=mai** heka.
3PL=come no.more
'They did not come anymore.' (Balukh 2015: 107)[13]

[13]The glossing for this example is based on Tan (2021: 7).

(499) a. **Rèngu r-èti** dènge babha.
3PL 3PL-bring with gong
'They brought gongs.'
(Balukh 2015: 110)

b. **Ra=r-èti** dènge babha.
3PL=3PL-bring with gong
'They brought gongs.'
(Balukh 2015: 110)

(500) a. (**Ja'a**) **k-u'a** tarae_sina.
(1SG) 1SG-eat corn
'I eat corn.' (Balukh 2020: 89-90)

b. (**Ja'a**) **la-ku** èmu.
(1SG) go-1SG house
'I went home.' (Balukh 2020: 90)

What is not possible in Dhao is using both an independent pronoun and clitic. Balukh (2015: 110) describes subject pronouns and clitics as being in "complementary distribution", providing the examples in (499) and (501) to illustrate.

(501) a. * **Rèngu ra=r-èti** dènge babha.
3PL 3PL=3PL-bring with gong
Intended: 'They brought gongs.' (Balukh 2015: 110)

b. Mai **èdhi la-ti** pèci eele asa dara dhasi.
come 1PL.INC go-1PL.INC throw PRT to inside sea
'Let us go to throw (something) into the sea.' (Balukh 2015: 110)

c. Mai **ti=la-ti** pèci eele asa dara dhasi.
come 1PL.INC=go-1PL.INC throw PRT to inside sea
'Let us go to throw (something) into the sea.' (Balukh 2015: 110)

d. * Mai **èdhi ti=la-ti** pèci eele asa dara dhasi.
come 1PL.INC 1PL.INC=go-1PL.INC throw PRT to inside sea
Intended: 'Let us go to throw (something) into the sea.' (Balukh 2015: 110)

As we have seen in many Uab Meto examples, subject pronouns and agreement freely co-occur. Subject pronouns are not obligatory (360b-c, 360f, 502, 515b), but regardless of their presence, agreement is always present (484, 502). Thus, according to this diagnostic, the Uab Meto agreement prefixes are true agreement, not a form of clitic doubling.

(502) (**Hiit**) *(**ta-**)laal=jen.
(1PL.INC.NOM) *(1PL.INC-)finish=INCP
'We have finished.' (YEK; elic. Feb. 16, 2022)

Personal pronouns are definite and referential, so we cannot attribute their inability to be clitic-doubled to non-referentiality. Rather, this restriction is due to the fact that free pronouns and coindexed clitics are too similar to each other. Yuan (2021) assumes a form of clitic doubling via movement (469) in Inuktitut that we could equally apply to Dhao. If a pronoun and clitic are both D heads, and they are identical in their semantic features, this means that they are formally identical. When a clitic attaches to a verb, this creates a movement chain of which the clitic and pronoun are identical members. Typically an economy condition at PF only allows one member of such a chain

to be pronounced. If a pronoun is focused or modified in some way, then clitic doubling becomes permissible again in both Inuktitut (503a-b) and Dhao (503c), because requirements to pronounce a focused or modified element can override the general economy condition on which elements of a movement chain to pronounce (Yuan 2021: 170-171, citing Landau 2006). True agreement is never part of a movement chain with a pronoun or clitic, so it is never subject to such restrictions.

(503) a. **Uvanga** Taiviti-up taku-qqau**-jaanga**, Carol
1SG.ABS Taiviti-ERG see-REC.PAST-3SG.SUB/1SG.OBJ Carol.ABS
taku-nngi-&uni-uk.
see-NEG-CTMP.3SG.SUB-3SG.OBJ
'It's me that Taviti saw, not Carol.' (Yuan 2021: 171)

b. Jaani-up piu-gi-nngit**-taatigut** **ilisaiji-tigut**.
Jaani-ERG like-have.as-NEG-3SG.SUB/1PL.OBJ teacher-1PL.ASSOC.ABS
'Jaani doesn't like us teachers.' (Yuan 2021: 171)

c. (**Rèngu**) **dua ra=**pa-raga.
(3PL) two 3PL=RECP-meet
'The two of them met?' (Balukh 2015: 114)

In this subsection we have seen a variety of diagnostics for true agreement vs. clitic doubling, and according to all of them, Uab Meto has true agreement. Uab Meto agreement is subject to allomorphy conditioned lexically and grammatically by the root and v heads in the verbal complex. Uab Meto agreement is obligatory, and default agreement occurs when there is nothing to agree with. Uab Meto agreement does not show any semantic restrictions on the kinds of DPs that can agree; all kinds of less/non-referential DPs agree just like definite DPs. Finally, Uab Meto agreement readily co-occurs with overt pronouns. All of these properties would be difficult to explain under a clitic-doubling analysis.

4.4.2 Why the ϕ-probe looks down: Against inherent agreement with a specifier

The analysis of Uab Meto verbal agreement developed here assumes that ϕ-probes look down into their c-command domain to find a goal with which to agree (Chomsky 2000, Bobaljik 2008, Deal 2017, Rudnev 2021, among others). I have not found evidence in Uab Meto for domain expansion via a mechanism like cyclic Agree (Béjar & Rezac 2009), so a goal must be base-generated in the c-command domain of Agr to be targeted for agreement. The c-command-domain analysis is quite common for agreement where the agreeing head is not assumed to have introduced the argument with which it agrees, such as when T agrees with an argument in typical nominative-aligned subject agreement. Uab Meto Agr is lower than T, but its agreement mechanism is the same.

There are other agreement mechanisms that have been proposed for subject agreement, such as specifier-head (spec-head) agreement between the subject and the head that introduces it. Analyses where a head agrees with its specifier have been invoked for phenomena like inherent ergative

agreement in the Mayan language Ch'ol (Coon 2017b), and external-argument-aligned agreement in the Austronesian language Acehnese (Legate 2014). Such analyses account well for the agreement patterns in Ch'ol and Acehnese, but these patterns are notably different from the Uab Meto pattern, where verbs agree with the highest argument, regardless of where it originates. The Ch'ol and Acehnese patterns will be demonstrated and contrasted with Uab Meto below.

Ch'ol, like other Mayan languages, uses two sets of person/number markers to index arguments on verbs. "Set A" markers cross-reference ergative arguments, while "set B" markers cross-reference absolutive arguments (504); the 3rd-person set B marker is null (505). There is no overt case marking on nominals (505) (Coon 2017a: 663), so the ergative-absolutive alignment of Ch'ol is revealed through the distribution of the markers (504).

(504) a. Tyi **aw-**il'-e-y=**oñ**.
PFV A2-give-TV-EPEN=B1
'You gave it to me.'
(Coon 2017b: 116)

b. Tyi **y-**il-ä-y=**ety**.
PFV A3-see-TV-EPEN=B2
'She saw you.'
(Coon 2017b: 102)

c. Tyi ts'äm-i-y=**ety**.
PFV bathe-ITV-EPEN=B2
'You bathed.'
(Coon 2017b: 102)

(505) a. Tyi k-il-ä-yob **jiñi wiñik-ob**.
PFV A1-see-TV-PL DET man-PL
'I saw the men.'
(Coon 2017a: 652)

b. Tyi i-jats'-ä-yob i-bä **jiñi wiñik-ob**.
PFV A3-hit-TV-PL A3-RN.self DET man-PL
'The men hit each other/themselves.'
(Coon 2017a: 674)

Coon (2017b) analyzes the set A markers in Ch'ol as ergative agreement and the set B markers as absolutive clitic doubling. The ergative agreement ϕ-probe is on transitive v, and it agrees with its specifier, the external argument (504a-b). Crucially, when the verb is intransitive/unaccusative[14] (504c), intransitive v lacks a specifier, and there is no ergative agreement. Ergative agreement results from a specific relationship between transitive v and its specifier (Coon 2017b). If transitive v and the associated external argument are absent, then there is no agreement.

Acehnese is well known for having a typologically unusual form of verb agreement. Interestingly, Acehnese agreement shares some properties relating to lowness with Uab Meto agreement while differing significantly in other respects. Legate (2014) argues that Voice is the location of agreement in Acehnese. This lowness means that like in Uab Meto (360), agreement surfaces below negation (506a), modals (506b), and aspect (506c). Agreement is higher than the root though, because the causative prefix intervenes (506d, cf. 136 in Uab Meto).

(506) a. Gopnyan **hana geu-**poh asèe nyan baroe.
3.POL NEG 3.POL-hit dog DEM yesterday
'He didn't hit the dog yesterday.' (Legate 2014: 28)

b. Gopnyan **jeuet geu-**pajôh boh mamplam nyan.
3.POL may 3.POL-eat CL mango DEM
'He may eat the mango.' (Legate 2014: 28)

[14]Ch'ol lacks syntactically unergative verbs. The semantic equivalent are expressed in a formally transitive way with a light verb like *cha'l* 'do' and a nominal object corresponding to what would be an unergative verb in a language like English (Coon 2017b: 132).

c. Gopnyan **teungoh** **geu-**pleung jinoe.
3.POL PROG 3.POL-run NOW
'He is running now.' (Legate 2014: 28)

d. Hasan **geu-peu**-raya rumoh gopnyan.
Hasan 3.POL-CAUS-big house 3.POL
'Hasan enlarges his house' (Legate 2014: 29)

Despite these similarities, Acehnese agreement differs radically from Uab Meto agreement in other respects. Acehnese agreement is closely associated with the initiator of an action (i.e. the external argument) (Legate 2014: 29). Unergative (507a) and transitive (507b) subjects and even oblique initiators (507c) agree, but unaccusative subjects do not (507d). Legate (2014) assumes that active external arguments (507a-b) are introduced in Spec,VoiceP, and passive external arguments (507c) are introduced in a PP-adjunct to Voice. Voice introduces the initiator θ-role for incorporating this argument in both cases. The strong association of agreement with the initiator makes Voice a natural place to locate the ϕ-probe. Agreement does not reflect the features of the non-initiator grammatical subjects in (507c-d), which are base-generated as verbal complements and never associated syntactically or semantically with Voice.

(507) a. **Aneuk miet nyan** **di-**meulangue.
child small DEM 3.FAM-swim
'The child swam.' (Legate 2014: 30)

b. **Uleue nyan** **di-**kap lôn.
snake DEM 3.FAM-bite 1SG
'The snake bit me.' (Legate 2014: 9)

c. Lôn **di-**kap lé **uleue nyan**.
1SG 3.FAM-bite LE snake DEM
'I was bitten by the snake.' (Legate 2014: 9)

d. **Lôn** ka **(*lôn-)**reubah.
1SG PFV (*1SG-)fall
'I fell.' (Legate 2014: 30)

Like Coon (2017b) with Ch'ol transitive v, Legate (2014) analyses Acehnese agreement as resulting from a sort of inherent agreement between Voice and the external argument. External arguments, including oblique agents, control agreement because they are introduced semantically (and often syntactically) by the agreeing Voice head. This is not how Uab Meto agreement works. Uab Meto verbs agree with the highest DP argument (i.e. the subject), regardless of its θ-role or where it originates. This difference is especially clear when comparing Uab Meto examples like those in (392), repeated as (508a-b) with analogous Acehnese examples like (508c-d). In Uab Meto there is agreement with both agents and patients, because agreement is with the grammatical subject. Causativizing the verb swtiches agreement from patient to agent, but both arguments can in theory be targeted for agreement. By contrast, in Acehnese there is only agreement with agents. A patient cannot be targeted for agreement even when it is the only argument in the clause, because it is not introduced by Voice.

(508) a. **Au** **’-**móuf.
1SG.NOM 1SG-fall
‘I fall.’ (Benu 2016: 153)

b. **Hoo** **mu-**móuf-∅ kau.
2SG.NOM 2SG-fall-CAUS 1SG.ACC
‘You make me fall.’ (Benu 2016: 153)

c. Aneuk nyan reubah.
child DEM fall
‘The child fell.’ (Legate 2014: 112)

d. **Hasan** **geu-**peu-reubah aneuk nyan.
Hasan 3.POL-CAUS-fall child DEM
‘Hasan caused the child to fall.’
(Legate 2014: 112)

The differences above are a consequence of Ch’ol and Acehnese having inherent agreement and Uab Meto having generalized subject agreement. Another typical (though seemingly not absolute) consequence of having inherent agreement is having inherent case. In Ch’ol, transitive v introduces external arguments and also assigns (non-overt) ergative case to that argument (Coon 2017b: 104). In Acehnese, some Voice heads that introduce a specifier assign inherent ergative case to it, and some do not (Legate 2014: 62), but it is still part of the grammar.

If Uab Meto had inherent nominative agreement, we would expect all arguments that control agreement on a verb to also bear nominative case. Nominative case and agreement would go hand in hand. In fact, though nominative-aligned languages like English are not typically assumed to have inherent agreement, nominative case and subject agreement are viewed as closely linked, leading work like Chomsky (2000, 2001) to characterize case and agreement as two sides of the same coin. In English both nominative case and subject agreement are associated with T, so this close link is unsurprising. What if case and agreement are handled by different heads? Uab Meto provides a test case.

In the analysis of Uab Meto developed in this chapter, agreement is handled by a ϕ-probe located on an Agr head immediately above Voice. The exact process by which nominative case is assigned remains unclear, but the fact that negation and TAM elements intervene between agreeing verbs and the subjects with which they agree can plausibly be accounted for by saying that T has an EPP feature that moves the highest DP to Spec,TP, and it assigns nominative case to this DP. Thus, nominative case assignment on T and ϕ-agreement on Agr are separate processes that happen to interact with the same DP in many cases. However, these processes can be teased apart. Though verbs *usually* agree with nominative DPs in Uab Meto, in some cases embedded verbs agree with accusative DPs (509). This accusative DP is the highest argument associated with the embedded verb, even if it is not the highest argument in the entire clause. For comparison, (510) shows the exact same verbs agreeing with nominative subjects, using the same person/number combinations when such data are available to me. Agreement with DPs bearing different case assignments is not typical of inherent agreement, and it would not be expected of nominative agreement when the same head handles case and agreement, but it is possible when case and agreement may proceed separately.

(509) a. Pleent=e n-*’utus* **kau** **’-nao** on paha ’naek.
government=DEF 3-dispatch 1SG.ACC 1SG-go IRR.LOC land big
‘The government sent me to the big city.’ (YAF; AOZ2019-MON004, lines 73-74)

b. Au ’-moe’ **koo** **m-tuup**.
1SG.NOM 1SG-do 2SG.ACC 2SG-sleep
‘I make you sleep.’ (YEK; elic. May 19, 2021)

c. Au ’-moe’**=le** **na-meen**.
1SG.NOM 1SG-do=3SG.ACC 3-sickness
‘I made him/her sick.’ (YEK/NSK; elic. Sep. 29, 2021)

d. Hiit mama n-éék **kiit** **t-óé** uim menas.
1PL.INC.NOM mom 3-bring 1PL.INC.ACC 1PL.INC-to house sickness
‘Our mother brought us to the hospital.’ (YEK; elic. Jul. 20, 2021)

(510) a. **Au** **’-nao** on Jakarta.
1SG.NOM 1SG-go IRR.LOC Jakarta
‘I went to Jakarta.’ (YAF; AOZ2019-MON004, line 59)

b. **Hoo** **m-tuup**.
2SG.NOM 2SG-sleep
‘You sleep.’ (Steinhauer 1993: 135)

c. **Au** **’u-meen**.
1SG.NOM 1SG-sickness
‘I’m sick.’ (YEK; elic. Dec. 15, 2021)

d. Oka=t neon unu’ **au** ’-sae **’-óé** bnao kolo.
then=SET day first 1SG.NOM 1SG-rise 1SG-to boat bird
‘Then was the first time that I took an airplane.’ (YAF; AOZ2019-MON004, line 62)

In summary, Uab Meto has no restrictions on the kinds of subjects that can control agreement, and the head that agrees with the subject does not assign case to it. Thus, Uab Meto does not have inherent agreement between a head and its specifier or other argument that it selects for. There is also no evidence for cyclic Agree. These are the only types of agreement that look up, out of the agreeing head’s c-command domain. This suggests that the Uab Meto ϕ-probe looks down into its c-command domain to find an argument with which to agree. This also means that the ϕ-probe must be high enough to exhibit its preference for external arguments. If we assume that external arguments are generated in Spec,VoiceP, then the ϕ-probe must be higher than VoiceP.

4.4.3 Why each verb must have its own ϕ-probe and AgrP: Independent probing

This chapter has discussed at length the location of Uab Meto subject agreement in the clausal spine: it is on an Agr head below TAM heads and negation (section 4.2) and immediately above Voice (section 4.3). Section 4.4.2 has discussed why the ϕ-probe looks down into its c-command domain to find an argument to agree with, rather than agreeing with a hypothetical specifier introduced in Spec,AgrP. What has not been discussed yet is how to analyze clauses in which more than one verb

agrees. In fact, because every verb must agree and serial verb constructions are possible, examples like this are quite common (360c, 360e, 380c, 136b, 137b, 138, 511). This subsection offers a preliminary analysis suggesting that every verb has its own independent ϕ-probe.

(511) a. Hai **m-**nao **m-**fani **m-**tee laaln=e
1PL.EXC.NOM 1PL.EXC-go 1PL.EXC-return 1PL.EXC-arrive road=DEF
tnaan-n=e.
middle-3SG.INAL=DEF
'We returned and stopped in the middle of our trip.'
(YEK; AOZ2019-MON002, line 75)

b. Au kaes=le **neem** **na-**poi-n kau.
1SG.NOM boss=DEF 3.come 3-exit-CAUS 1SG.ACC
'My boss came to take me out.' (LTK; AOZ2019-MON011, line 133)

c. Au **'-taam** fuunn=es|a **'-bii**=n uim menas.
1SG.NOM 1SG-enter moon=one|EPEN 1SG-RLS.LOC=DAT house sickness
'I was in the hospital for one month.' (LTK; AOZ2019-MON011, line 105)

The analysis developed in in this chapter links the morphological manifestation of agreement to an Agr head above the root, v, and Voice. This implies that every agreeing verb has an Agr head above it. I believe that this is the correct analysis, but there are alternatives. One potential alternative would posit a single head that agrees directly with the subject and shares the ϕ-features with the other heads that show agreement; only one head actually agrees. This may be appropriate for some languages, but it does not work for Uab Meto. To demonstrate this, I will compare the properties of agreement in multi-verbs constructions in Uab Meto with those in Ibibio (Niger-Congo).

Ibibio is a language in which nearly every element in the verbal complex shows agreement with the subject (512). Object markers appear to only occur once, adjacent to the root (512a), but subject markers can appear multiple times on various elements in the verbal complex of a single verb (512a-b) and on multiple verbs if present (512c-d).

(512) a. Ɔmmɔ: **e-**ma-**e-**n-yem.
they 3PL.SUB-PAST2-3PL.SUB-1SG.OBJ-seek
'They looked for me.' (Baker & Willie 2010: 101)

b. **I-**kpa-**i-**k-**i-**si-nam.
1PL.SUB-COND-1PL.SUB-PAST-1PL.SUB-IMPF-do
'We would have been doing it.' (Baker & Willie 2010: 102)

c. **U-**kp-**u-**k-**u-**s-**u-**mana-ke **u-**nam.
2SG.SUB-COND-2SG.SUB-PERF-2SG.SUB-IPFV-2SG.SUB-do.again-NEG 2SG.SUB-do
'You should not have been doing it again.' (Baker & Willie 2010: 110)

d. **M-**maa-dep udia **n-**tem.
1SG.SUB-PAST1-buy yam 1SG.SUB-cook
'I bought yams and cooked them.' (Baker & Willie 2010: 100)

Baker & Willie (2010: 111) argue that the multiple exponence of subject agreement in Ibibio results from feature sharing between functional heads in the verbal complex. They propose that Mood, the highest functional head, agrees with the highest DP and passes the ϕ-features to other functional heads like T and Asp. T and Asp do not agree with the DP directly. This sort of analysis works for Ibibio because the agreeing elements always match each other in ϕ-features. If the different heads always have the same ϕ-features, it is plausible that the features were shared between them.

Feature sharing also accounts for the fact that agreeing elements can affect each other in Ibibio. For example, negated verbs take a special agreement prefix, and this special prefix spreads to other agreeing elements (513). Notably, this spreading happens both when the agreeing elements are part of the same word (513a vs. 513b) and when they are part of different words (513c vs. 513d), where one word is not morphologically negative.

(513) a. Ndito ado **e-**ma-**e-**yie idem-ɔmmɔ.
children those 3PL.SUB-PAST1-3PL.SUB-wash body-their
'Those children washed themselves.' (Baker & Willie 2010: 128)

b. Ndito ado **i-**k-**i-**yie-ghe idem-ɔmmɔ.
children those I-PAST2-I-wash-NEG body-their
'Those children did not wash themselves.' (Baker & Willie 2010: 128)

c. Okon **a-**sɔsɔp **a-**dɔk ekpat.
Okon 3SG.SUB-do.quickly 3SG.SUB-make bag
'Okon quickly/easily made a bag.' (Baker & Willie 2010: 100)

d. Okon **i-**sɔp-pɔ **i-**dɔk ekpat.
Okon I-do.quickly-NEG I-make bag
'Okon did not make the bag quickly.' (Baker & Willie 2010: 102)

Agreeing elements can also affect each other through finiteness. If one verb in an embedded clause has an infinitival T, then other verbs in that clause also have a non-agreeing marker (514). (514a) shows two verbs *mana* 'do again' and *nam* 'do' in a finite clause that share the same subject agreement marker. If these two verbs are embedded under *yem* 'want', then one takes the infinitive marker *adi-*, and the other takes a non-agreeing prefix *n-* (514b). (514c) is given as a comparison to show the lack of agreement in infinitival clauses, since it has a 3SG subject *Okon* rather than a 3PL subject *ndito ado* 'the children'.

(514) a. Ndito ado **e-**ma-**e-**mana **e-**nam.
children the 3PL.SUB-PAST-3PL.SUB-do.again 3PL.SUB-do
'The children did it again.' (Baker & Willie 2010: 116)[15]

b. Ndito ado e-yem **adi**-mana **n-**nam. (*e-nam)
children the 3PL.SUB-want INF-do.again N-do (*3PL.SUB-do)
'The children want to do it again.' (Baker & Willie 2010: 116)

[15]This example is translated in Baker & Willie (2010) as 'The children want to do it again.', but the gloss, with *yem* 'want' missing and a past tense marker on *mana* 'do again', suggests a translation closer to 'The children did it again.'.

c. Okon a-yem **adi**-mana **n-**nam.
Okon 3SG.SUB-want INF-do.again N-do
'Okon wants to do it again.' (Baker & Willie 2010: 108)

Uab Meto shares with Ibibio the ability to have multiple instances of agreement in a single clause, but it differs in a number of ways. First, TAM elements do not agree (360, 362). Agreement only occurs on verb stems consisting of a root, v, Voice and optionally Appl (390, 395, 136, 188). Second, there is no apparent way that the different agreeing elements affect each other. Each verb has its own Agr ϕ-probe that agrees independently. If there is no feature sharing between ϕ-probes, and there are multiple ϕ-probes in a clause, then in principle it should be possible for the ϕ-probes to agree with different DPs. In fact, while it is often the case that all verbs match in ϕ-features (511), mismatches are also possible. In the cases in (515) the second verb agrees with the object of the first verb. The second verbs here have a function akin to adpositions in many other languages. I treat them as verbs because they agree just like other verbs, and there is not convincing evidence for a separate adposition category in Uab Meto. More examples of these can be found in section 4.3.3.

(515) a. Au **'-fee** tabe' **n-óé** kiit ok∼oke'.
1SG.NOM 1SG-give greeting 3-to 1PL.INC.ACC all.RED∼all
'I give thanks to all of us.' (YAF; AOZ2019-MON004, line 355)

b. Na-sae-b n-éék kau=m **n-éék** kau=ben **'-óé** uim
3-rise-CAUS 3-bring 1SG.ACC=and 3-bring 1SG.ACC=INCP 1SG-to house
meens=e=m...
sickness=DEF=and
'They drove me to the hospital and...' (LTK; AOZ2019-MON011, line 103)

c. Hai lo **m-*'urus*** **na-'koo** le' lóé pleent=e.
1PL.EXC.NOM must 1PL.EXC-organize 3-from REL money government-DEF
'We have to organize it from the government money.'
(YAF; AOZ2019-MON004, lines 173-174)

d. Hoo **mu-poi-n** kau **'u-'koo** ume.
2SG.NOM 2SG-exit-CAUS 1SG.ACC 1SG-from house
'You got me out of the house.' (YEK; elic. Feb. 23, 2022)

The ability of the Agr ϕ-probes to act independently in Uab Meto is made especially clear when comparing the agreement possibilities and interpretations of two-verb constructions with an intransitive first verb and a second adposition-like verb. The first verb consistently agrees with the subject, while the second verb can either match or differ in its agreement. This depends on the semantics of the second verb relative to the subject. (516) features the verbs *sae* 'rise' and *óé* 'to'. In this sentence, I go up, and I end up on the airplane. Thus, there must be 1SG agreement on both verbs.

(516) Au **'-sae** {✓**'-óé** / ***n-óé**} bnao kolo.
1SG.NOM 1SG-rise {✓1SG-to / *3-to} boat bird
'I got on an airplane.' (YEK; elic. Feb. 9, 2022)

The patterns become more interesting when the first verb is *méup* 'work' (517). Here we have the same second verb *óé* 'to' as in (516), but agreeing with the subject or not affects the interpretation. If *óé* agrees with the subject, I work, and I am *in* the community (517a). This provides a locative or allative interpretation. However, if *óé* takes 3rd-person agreement, then I work, and this work is *for* the community (517b), a benefactive interpretation. These translations are not interchangeable. From a morphosyntactic standpoint, it is unclear whether *óé* in (517b) is agreeing with a null working-event object or simply showing default agreement, but the difference in interpretation is clear.

(517) a. Au **'-méup** **'-óé** toob.
1SG.NOM 1SG-work 1SG-to people
'I work in the community.'
(YEK; elic. Feb. 9, 2022)

b. Au **'-méup** **n-óé** toob.
1SG.NOM 1SG-work 3-to people
'I work for the community.'
(YEK; elic. Feb. 9, 2022)

Lastly, (518) shows that the second verb is truly able to determine its own agreement in relation to the subject, independently of the first verb. Here we have the same first verb *méup* 'work' and a second verb *ook* 'with'. I work, and I am with the community, so there is 1SG agreement on both verbs. This is the only way to express this interpretation.

(518) Au **'-méup** {✓**'-ook** / ***n-ook**} toob.
1SG.NOM 1SG-work {✓1SG-with / *3-with} people
'I work with the community.' (YEK; elic. Feb. 2, 2022)

The examples in (515)-(518) show that all verbs can agree with the same argument, or they can differ. If we assume that every verb has an AgrP and associated ϕ-probe above it, then we can also say that every verb has a VoiceP, vP, and RootP associated with it. This means that each verbal complex can introduce its own internal and external arguments, leading to the generalization that every verb agrees with *its own* highest argument. It remains unclear how exactly to analyze the syntactic structure(s) of serial verb constructions in Uab Meto. However, it is quite clear that an analysis of these constructions must allow for each verb to probe and agree independently.

4.5 Chapter conclusion

Uab Meto broadens our understanding of the typology of agreement. Previous work has shown that absolutive agreement can arise from a low ϕ-probe on v (Béjar & Rezac 2009) or a high ϕ-probe on T with case discrimination (Bobaljik 2008), but nominative agreement has consistently been linked to a high ϕ-probe on T. Uab Meto shows that nominative agreement can also be low. Uab Meto thus fills a gap in our typology, being the first language to my knowledge reported to

have nominative agreement, but in a low location. Uab Meto's place in this typology of agreement alignment and ϕ-probe height is shown in (359), repeated as (519); trees illustrating the different types of agreement are provided in (355)-(358). More broadly, Uab Meto affirms the prediction of Minimalism (Chomsky 2000) and Distributed Morphology (Choi & Harley 2019) that a ϕ-probe does not need to be on a particular head at a particular height in the clause. Nominative agreement can be obtained with a ϕ-probe anywhere above the Merge site of external arguments. Nothing requires that ϕ-probes be located on particular heads; what matters is DP eligibility and closest c-command.

(519) Typology of NOM and ABS agreement with high and low ϕ-probes

	High	**Low**
NOM	English, French, German, Russian, ... (see 355)	**Uab Meto** (see 358)
ABS	Hindi, Tzez, K'iche', Q'anjob'al (see 357)	Ch'ol, Tseltal (see 356)

The lowness of Uab Meto agreement leads to interesting effects. Uab Meto shows that if ϕ-probes are low enough, and if each verb has its own ϕ-probe, then verbs in the same clause can agree independently of each other. In some cases, this means that a non-initial verb agrees with an accusative-marked argument that functions as the object of the initial verb. This yields a generalization that each verb agrees with its own highest argument, rather than the highest argument in the overall clause, regardless of case marking. This generalization raises the question of how best to define nominative-aligned agreement. Should nominative-aligned agreement be defined as agreement that prefers to target the highest argument in a ϕ-probe's domain, or should it be linked to nominative-marked DPs, or subjects more generally?

In terms of the general architecture of grammar, Uab Meto shows that agreement and case assignment do not have to be associated with the same head. Uab Meto verbs can agree with nominative or accusative DPs. This suggests that Uab Meto's Agr does not assign case to the DP with which it agrees. To account for the lack of agreement on TAM elements and negation and the fact that these elements do not block agreement on lexical verbs, the ϕ-probe must be below T, Asp, and Neg. On the other hand, to derive the correct surface word order, the highest DP must move to the left of these TAM markers and negation, presumably to Spec,TP. Perhaps T drives this movement and assigns nominative case to this DP, but crucially, it does not simultaneously agree with the DP. Therefore, among the phenomena of movement, nominative case assignment, and agreement, at least agreement can operate independently.

Another interesting finding in terms of the general architecture of grammar is the necessity, at least in some languages, of positing of an independent Agr head to handle agreement. Uab Meto features agreement prefixes that are easily separable from the rest of the verbal complex, and various morphological and syntactic tests show that agreement is below T, Asp, and Neg and above the root, v, and Voice, but agreement is *on* none of these. Thus, this chapter has postulated an Agr head, which is actually a return to older proposals within the Principles and Parameters framework (Pollock 1989, Chomsky 1991, Chomsky & Lasnik 1993, among others) that has since been revived in some recent work (Yuan 2021). Chomsky (2000, 2001) and subsequent work within Minimalism

is generally against the idea of Agr projections due to a desire to have all projections be semantically contentful, while true agreement is semantically vacuous. Uab Meto allows one to maintain the idea that agreement is semantically vacuous, but a separate Agr projection is morphosyntactically necessary; there is no other head where agreement clearly belongs. This means that we need to permit semantically vacuous projections that only do morphosyntactic work.

Some questions that merit investigation in future work include the following: Typologically, is the decoupling of case assignment and agreement that we see in Uab Meto common cross-linguistically, or is Uab Meto unusual in this respect? If Uab Meto is unusual, why do languages typically combine these two functions on a single head? Is there a connection between locating agreement on an independent Agr head and decoupling case assignment and agreement? Perhaps this is a point of cross-linguistic variation. As another typological question, why does low nominative agreement appear to be so rare cross-linguistically? Perhaps there are historical reasons for the development of low subject agreement (Tan 2021). If this is the case, what factors lead to the development of subject agreement on T?

Studies like this one demonstrate the importance of having a broad typological base when developing theories about language. Typologically unusual data reveal the full extent of what is possible in natural language, and they also reinforce ideas about what is more common. A complete understanding of any given linguistic phenomenon should ideally account for observed variation while also explaining why some variants are more common than others. Perhaps in the future it will be clear why nominative agreement is usually high but may be low under the right set of conditions.

Chapter 5

Conclusion

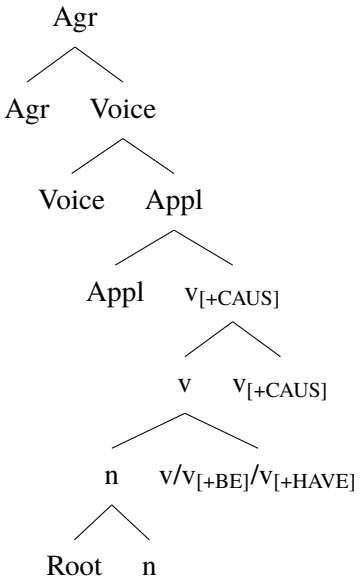
This dissertation has analyzed the morphosyntax of Uab Meto verbal agreement within the framework of Distributed Morphology (Halle & Marantz 1993) and more broadly within Minimalism (Chomsky 1995, 2000, 2001). In doing so it has also analyzed various other aspects of Uab Meto grammar, including the inventory of distinct heads in the verbal complex and their morphology and syntax, as well as the syntax of negation and TAM markers in relation to agreement and to each other. This analysis has yielded many interesting insights for linguistic theory. This brief chapter completes the dissertation. **Section 5.1** summarizes the main analytical findings and theoretical insights of this dissertation. **Section 5.2** then discusses remaining questions and potential directions for future work.

5.1 Main findings of the dissertation

This dissertation began in chapter 1 with general background on Uab Meto, including language demographics and common dialectal divisions, before moving onto a discussion of my own fieldwork on Uab Meto, previous work by others, and how all of them factor into the dissertation. This chapter features the first analytical elements of this dissertation, namely an analysis of the phoneme inventory, a formal description of metathesis in the Miomafo variety, pronoun and verbal agreement paradigms, a demonstration of the nominative alignment of both pronominal case marking and verbal agreement, and a preview of the mechanisms of nominative-case assignment from and subject movement to T, subject agreement on a lower Agr head, and head movement to Agr of all heads below it to derive the verbal complex.

Chapter 2 argues for the verbal structure in (520). The different heads that can fill each slot and their features are listed in Table 5.1. Taking as a starting point the assumption of Distributed Morphology that words can be decomposed syntactically, and each morpheme can at least in principle act as an independent syntactic object, this chapter attempts to determine the complete inventory of heads in the verbal complex and the hierarchy in which they combine. This chapter also elucidates the general syntactic and semantic functions of these heads and their allomorphy.

(520)



Category	**Head**	**Form**	**Function**	**Discussion**
Root	various	various, some irregularity with agreement	Supplies the primary lexical meaning of the verb, can introduce internal arguments	2.2.1, 3.2.2, 3.4.4
n	n	-∅	Categorizes roots as nouns	2.2.3
v	default v	-∅	Categorizes roots as verbs, introduces an event	2.2.2
	$v_{[+BE]}$	-∅ or subtractive, $v_{[+HAVE]}$ when Voice introduces an external argument	Recategorizes nouns as verbs, introduces an event	2.2.3, 3.4.6
$v_{[+CAUS]}$	$v_{[+CAUS]}$	Lexically conditioned: *-b* (default), *-'*, *-∅*, *-t*, *-n*	Adds a causing event	2.3.1, 2.3.2 3.4.6
Appl	Appl	∅-	Introduces the causee of causativized transitive verbs	2.3.3
Voice	default Voice	∅-	Active: Introduces the external argument when needed	2.4.1
	stative *m(a)-*	*m-* in verbs, *ma-* in nouns	Passive-like: Quantifies over the external argument, requires an internal argument	2.4.2
	deobjective *ma-*	*ma-*	Antipassive-like: Introduces the external argument, quantifies over the internal argument	2.4.3
Agr	Agr	ϕ-feature dependent, C-/CV-, some lexical idiosyncrasy	Agrees with the highest DP	1.6, 2.5, 3.2, 3.4, 4

Table 5.1: Heads in the Uab Meto verbal complex

As summarized in (520) and Table 5.1, the lowest part of the verbal complex is the lexical root. This root first combines with a categorizing head. This head can either be n, making a noun, or default v, making a verb. Default v also contributes event semantics. If the root first combines with n to make a noun, this could be the end of the derivation, as it is for many nouns, but if one wishes to convert this noun into a verb, I adopt Tan (2023)'s analysis that this noun combines with a special verbalizer, $v_{[+BE]}$, which has the allomorph $v_{[+HAVE]}$ when structurally adjacent to any type of Voice head that introduces an external argument. In interacting with Voice, this yields an interpretation whereby an internal argument IS the noun described by the denominal verb, and an external argument HAS the noun described by the denominal verb. These allomorphs were originally proposed in work like Myler (2016) for languages like English that clearly allomorphically distinguish light verbs like *be* and *have*. Such evidence is lacking in Uab Meto beyond their distinct effects on agreement-prefix allomorphy, though it is at least clear that $v_{[+BE]}$/$v_{[+HAVE]}$ is distinct from default v morphologically in its frequent triggering of final-consonant deletion on C-final roots, including on loanwords (50).

Moving onto the middle part of the verbal complex, morphologically causativized verbs feature $v_{[+CAUS]}$. Chapter 2 establishes that Uab Meto has verb-selecting causatives in the typology of Pylkkänen (2008). In structural terms, this means that $v_{[+CAUS]}$ selects for a vP. In Uab Meto, this vP complement can be headed by default v or $v_{[+BE]}$. $v_{[+CAUS]}$ does not itself introduce any arguments, but it adds a causing event. One interesting aspect of Uab Meto causatives that it shares with at least some other Austronesian languages like Acehnese (Legate 2014) is that causatives of unaccusatives and causatives of unergatives have the same syntactic structure. Causativizing unaccusatives adds an agent, while causativizing unergatives adds a patient, rather than adding another agent. Causativizing monotransitives also leads to a configuration with only one agent, so the third argument must be introduced elsewhere. This led to the postulation of an Appl to introduce the causee, which must be lower than the agent causer but higher than the patient. Morphologically, $v_{[+CAUS]}$ manifests as a suffix *-b* by default but can also be several other consonants (*-'*, *-t*, *-n*) or null. There is no clear way to predict this other than lexical idiosyncrasy.

In the higher part of the verbal complex sit Voice and Agr. The analysis in chapter 2 provides evidence for at least three distinct Voice heads, 1. default Voice, which yields active syntax, 2. stative *m(a)-*, which quantifies over the agent, allowing for promotion of a patient, and 3. deobjective *ma-*, which leaves the agent in place, quantifies over the patient, introduces a requirement that that suppressed patient be capable of directing the action described by the verb back at the subject even if the patient is not actively doing so. In more traditional terms, default Voice is active, stative *m(a)-* is passive, and deobjective *ma-* is antipassive, though with additional semantic restrictions. Curiously, stative *m(a)-* is not productive on verbs, where it takes the *m-* form, but it is fully productive in nominalizations, where it take the *ma-* form. Several arguments are provided to show that Voice is above $v_{[+CAUS]}$, including the observation that Voice mandatorily scopes over causing events introduced by $v_{[+CAUS]}$, never the lower event introduced by other v heads. Finally, Agr is shown to be the highest element in the verbal complex through evidence such as agreement consistently targeting the highest DP regardless of where it is generated and the possibility of creating nominalizations that include every part of the verbal complex except agreement.

Chapter 3 takes the verbal structure resulting from the analysis in chapter 2 and uses it to analyze the complex allomorphy displayed by Agr. The chapter first describes the allomorphy patterns in

detail, confirming that the generalizations from Edwards (2020) extend to the Miomafo variety, repeated in Table 5.2. In summary, most verbs take agreement prefixes from one of two sets, an asyllabic (C-) set or a syllabic (CV-) set consisting of the same consonant + a vowel. All trisyllabic or longer (σσσ+) stems take the C- set. Among disyllabic stems, CC-initial stems take CV- Agr, to avoid creating CCC sequences (*CCC). All V-initial stems take C- Agr to avoid hiatus across morpheme boundaries (*V-V). The choice CV-initial stems depends on a variety of factors. The default, used on the majority of native stems and all loanwords, is C- Agr, except that causativized stems take CV- Agr, even when there is no overt causative suffix and despite the lack of linear adjacency between Agr and $v_{[+CAUS]}$. Notably, all stems containing deobjective *ma-* take C- Agr, including those that are also causativized. Finally, there are some irregular verbs. *ha*/*ah* 'eat' is the only monosyllabic root in the language, and it takes CV- Agr even when metathesis creates a violation of *V-V. Two verbs meaning 'come' involve stem changes depending on agreement. One stem uu uses normal C- Agr but has the special root form *ii* with 1PL.EXC and 2PL stems. The other, *Vma*/*VVm*, sometimes uses Agr prefixes and sometimes expresses agreement through stem changes in the verb, eschewing the usual prefixes.

Stem type			**Agr allomorph**		**Example**	**Gloss**	**Source**
σσσ+			C-		n-'eusfaan	'sneeze'	(171a)
σσ	#CC		CV-		na-snaas	'stop'	(168a)
	#V		C-		n-o'en	'call'	(167a)
	#CV	non-causativized (inc. denominal)	C-	75%	n-took	'sit'	(179a)
			CV-	25%	na-foo	'smell'	(187a)
		non-causativized loan	C-		n-'utus	'dispatch'	(169a)
		causativized	CV-		na-toko-b	'seat'	(179b)
		deobjective	C-		n-ma-'ah	'eat e.o.'	(191)
σ/'eat'			CV-		na-ah	'eat'	(174c)
'come'			special		neem	'come'	(176c)

Table 5.2: Uab Meto agreement-prefix allomorphy patterns (repeated again)

After this the chapter discusses some analytical background that is helpful in understanding the data. First, the dissertation proposes a modified Obliteration operation for Uab Meto that helps to account for the allomorphy displayed by Agr. This operation combines the structural deletion of traditional Obliteration (Arregi & Nevins 2007, 2012) with the triggering condition of traditional Pruning (Embick 2010, 2015). Vocabulary Insertion (VI) starts at the root and proceeds outward one morpheme at a time. If a morpheme undergoes VI and has a null exponent, it is Obliterated before VI moves to the next morpheme. The "marked" v heads $v_{[+CAUS]}$ and $v_{[+BE]}$/$v_{[+HAVE]}$ are a partial exception to this generalization, because they both are non-null at least sometimes; $v_{[+CAUS]}$ is *-b* by default, and $v_{[+BE]}$/$v_{[+HAVE]}$ often deletes the final consonant of the stems to which it attaches. At least $v_{[+CAUS]}$ and the $v_{[+HAVE]}$ allomorph must not be Obliterated to they can remain to condition CV- Agr, so the chapter later proposes that morphemes with any overt allomorphs do not Obliterate by default but can be made to do so by other heads (290 and surrounding discussion). Second is a

presentation of the analysis of Uab Meto foot and syllable structure from Edwards (2020), which extends well to the Miomafo variety. The major takeaway from that discussion is that *ha/ah* 'eat' is monosyllabic, most roots are disyllabic, including roots of the shape (C)VVCV(C) that may initially look trisyllabic, and any roots and stems bigger than this are σσσ+. Metathesis does not affect the syllable count.

Adopting this Obliteration operation and understanding of syllable structure allows one to account for most of the allomorphy displayed by Agr. Allomorphic conditioning on Agr is restricted to heads and the stems headed by them that are structurally adjacent to Agr. The conditioning of the C- and CV- allomorphs of Agr can be described as in (521). A particular conditioning factor can only affect the allomorphy of Agr when it is structurally adjacent to Agr, either based on the original structure or through Obliteration.

(521) a. Agr ⟷ CV- / _CC, $v_{[+CAUS]}$, $v_{[+HAVE]}$, *ha/ah* 'eat', *tuin* 'follow', maybe other roots
b. Agr ⟷ C- / _ σσσ+ and elsewhere

The chapter demonstrates how this analysis accounts for all the patterns in Table 5.2. In brief, if all the morphemes between Agr and the root are null and Obliterated, then the root becomes structurally adjacent to Agr and can lexically condition CV- Agr. If all the morphemes between $v_{[+CAUS]}$ or $v_{[+HAVE]}$ and Agr are null and Obliterated, then these v heads become structurally adjacent to Agr and can grammatically condition CV- Agr. Notably, $v_{[+CAUS]}$ and $v_{[+HAVE]}$ are never linearly adjacent to Agr. The first is a suffix when overt, and the second affects the end of the stem, but these heads can still condition syllabic Agr. This sort of conditioning is acceptable for in a structural sense for work like Bobaljik (2000) and Merchant (2015) but does not fit well with Paster (2009), Embick (2015), and Gribanova & Harizanov (2017). On the other hand, $v_{[+CAUS]}$ and $v_{[+HAVE]}$demonstrate grammatical conditioning by lower elements, which is compatible with Embick (2015) and Gribanova & Harizanov (2017) but a problem for Bobaljik (2000).

CC-initial and σσσ+ roots and stems can condition CV- Agr when the remaining stem as a whole is structurally adjacent to Agr. Notably, no individual morpheme needs to be σσσ+ for this conditioning to apply; all that matters is that the whole stem is. This supports the idea that whole stems (Paster 2009) or spans (Merchant 2015; Svenonius 2012) can condition allomorphy as long as they are structurally adjacent as a whole to the morpheme being conditioned.

This logic of structural adjacency explains why the presence of deobjective *ma-* prevents conditioning for CV- Agr by $v_{[+CAUS]}$, $v_{[+HAVE]}$ and roots. *ma-*, unlike default Voice, is always overt, so it is not Obliterated. Thus, the adjacent morpheme to Agr after Obliteration is Voice in these cases, not anything lower than Voice. This blocking leads to the insertion of the default C- allomorphs of Agr.

The chapter adds a couple of additional pieces to the analysis to account for the remainder of the data. The first is that because there are cases where stems headed by $v_{[+CAUS]}$ are σσσ+, these factors are in competition. This competition is resolved in favor of σσσ+ conditioning C- Agr. The phonological constraint takes precedence over the grammatical one. This outcome makes the case for something like the P » M constraint of McCarthy & Prince (1993) or the Distributed Morphology implementation of Harizanov & Gribanova (2014) of phonological context being treated

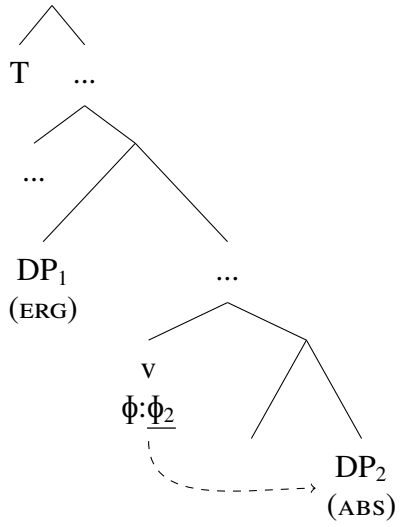
more specific than grammatical context despite the lack of a logical subset relationship. Lastly, to account for the root allomorphy and Agr-Root fusion seen in the two verbs meaning 'come', *uu*/*ii* (266) and *Vma*/*VVm* (274), this dissertation follows Scott (2023) in adopting bivalent person and number features for ϕ-agreement based on those proposed in Harbour (2016), with some modifications to the names of features as shown in Table 5.3, and having certain vocabulary items make reference to two features disagreeing in the + and − values for particular features. One can account for the persistent syncretism between 1PL.EXC and 2PL agreement in Uab Meto and any other languages that have this syncretism to the exclusion of 1PL.INC by having the relevant agreement prefixes and root allomorphs reference a feature bundle specified as [αSPKR, ¬αADDR]. One can also have morphological operations reference this sort of feature bundle. For *Vma*/*VVm* 'come', the fact that 1SG and 2SG exhibit the same fused form lacking the usual Agr prefix, and 1PL.EXC and 2PL exhibit another fused form, distinct form the 1SG/2SG one, can be accounted for by having a Fusion (Halle & Marantz 1993) rule that targets an Agr node with [αSPKR, ¬αADDR] + the *Vma*/*VVm* root and then having two Vocabulary items for the Fused node, one for [−PL] and the other for [+PL]. Uab Meto thus presents a strong case for bivalent features and vocabulary items that reference conflicting values.

		SG	PL
1ST	**INC**		+SPKR, +ADDR, +PL
	EXC	+SPKR, −ADDR, −PL	+SPKR, −ADDR, +PL
2ND		−SPKR, +ADDR, −PL	−SPKR, +ADDR, +PL
3RD		−SPKR, −ADDR, −PL	−SPKR, −ADDR, +PL

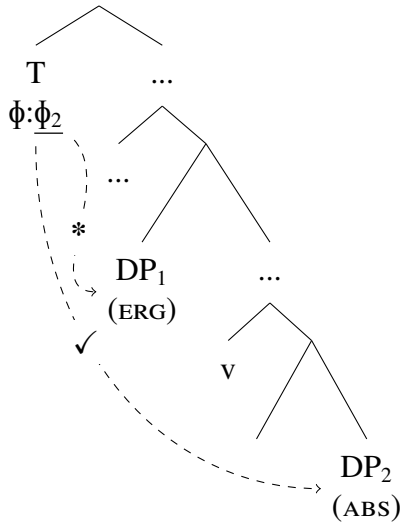
Table 5.3: Bivalent person and number features (repeated)

Chapter 4 is more typological in nature, comparing the syntax of case and agreement in Uab Meto to the syntax of case and agreement in other languages. Though low (522) and high (523) variants of absolutive agreement have been discussed in the literature (Béjar & Rezac 2009; Bobaljik 2008; Coon, Baier & Levin 2021; Deal 2017), to my knowledge, no work other than my own work (Lemon 2023, 2024a and work that references it like Tan (2023) has proposed that nominative agreement can be in a low position below negation and TAM marking (524). Nominative agreement is typically assumed to be high, on a head like T (525) (Coon 2017b; Legate 2014; Woolford 2010).

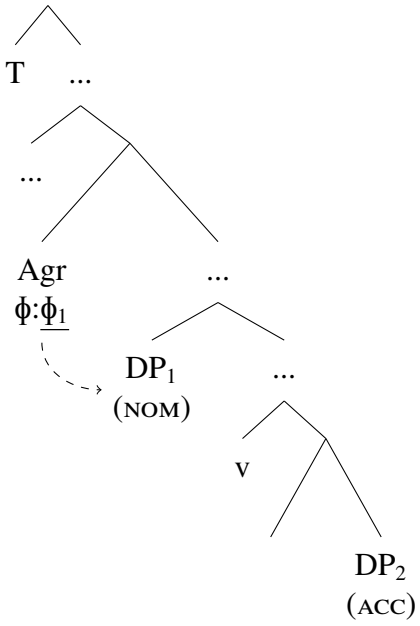
(522) Low absolutive agreement on v



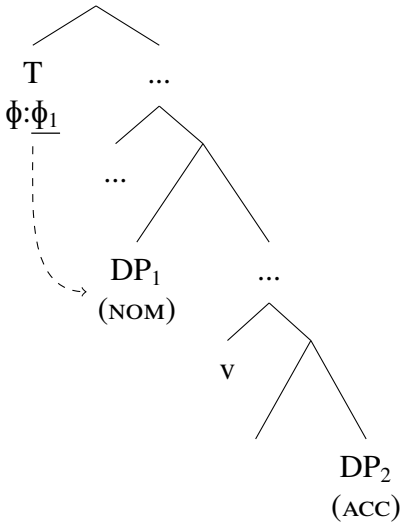
(523) High absolutive agreement on T



(524) Low nominative agreement on Agr



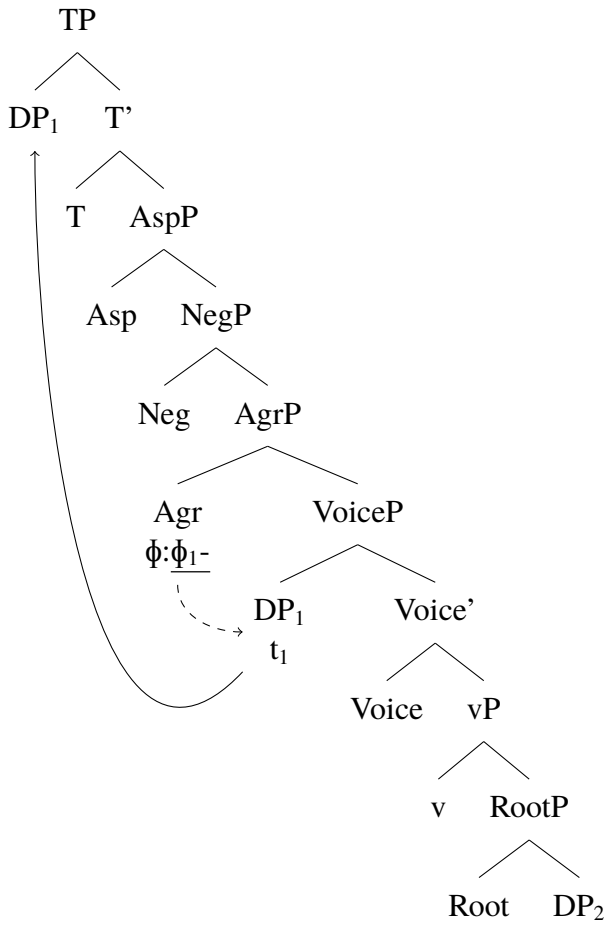
(525) High nominative agreement on T



While nominative agreement and case assignment being handled by T appears to be the most common option cross-linguistically, this chapter argues that this is not the correct analysis for Uab Meto, and instead, agreement is handled by an independent Agr head (Hsieh 2020; Pollock 1989; Yuan 2021) immediately above Voice, as established in chapter 2, while nominative case is still handled by T, which also moves the highest DP to its specifier, to the left of pre-verbal negation and TAM marking. This pattern shows that nominative agreement can be achieved with a ϕ-prove anywhere above the Merge site of external arguments. It also shows that agreement, case assignment, and

EPP properties do not always go hand in hand (Hsieh 2020; Pesetsky & Torrego 2007).

(526) Low nominative agreement on Agr in Uab Meto + subject movement to T



Chapter 4 advances several arguments for the low location of Agr in Uab Meto. The most important are that negation and all non-verbal TAM auxiliaries do not show agreement, and they do not do not block agreement on verbs, unlike in English, where negation and TAM intervene. Furthermore, negation and certain other TAM elements, namely the verbal ones *bisa* 'can' and *palu* 'need', can license VP ellipsis of verbs with agreement and their objects. Under the assumption that heads license ellipsis of their complements (Fortin 2019; Merchant 2008, 2013; Visonyanggoon 2000), this shows that these elements take a constituent containing Agr as their complement and thus are above Agr. All TAM markers, including the TAM markers that do not license ellipsis, must remain in answers if their antecedent questions contain them, suggesting that all of them are heads in the clausal spine above Agr. There is also a discussion of topic, focus, and subject position and how these interact with agreement but are separate from it. Combining this evidence with the conclusions about verbal structure from chapter 2 produces a complete picture of the structure of the clausal spine (467).

This chapter finishes by looking at some of ways that Uab Meto agreement differs from agreement in other languages. First is a demonstration that Uab Meto has true agreement, not clitic doubling, through evidence like Uab Meto's agreement being obligatory, showing significant allomorphy based on other elements in the verbal complex, frequently co-occuring with subject pronouns, and readily targeting non-referential DPs. Second, the fact that Uab Meto Agr agrees with DPs that are base-generated in any position within Agr's domain argues against an inherent agreement analysis of the kind often seen in other languages with ergative agreement like Ch'ol (Coon 2017b) and Acehnese (Legate 2014, where the head that introduces the agent also agrees with it and assigns it ergative case. In fact, because Uab Meto separates the functions of subject agreement and nominative case assignment onto different heads, Agr on non-initial verbs can agree with accusative-marked DPs. Another consequence of this separation, combined with the fact that Uab Meto allows serial verb constructions, is that two verbs in the same clause can agree with different DPs. This suggests that each verb has its own Agr ϕ-probe, and they probe independently of each other. This behavior is not possible in a language like Ibibio (Baker & Willie 2010) where there is only one ϕ-probe per clause, and so any other agreeing elements receive their ϕ-features through feature sharing.

5.2 Open questions and directions for future work

This dissertation has shed significant light on the allomorphy, morphology, and syntax of verbal agreement in Uab Meto and to a lesser extent, other elements in the verbal complex and the higher clausal spine. Despite this, many question remain, so as the final part of this dissertation I will take some time to lay out a few of these questions and the sort of work that one could undertake to help answer them.

A major question that emerges out of chapter 2 is how to characterize the morphological form of $v_{[+BE]}$/$v_{[+HAVE]}$, both as a single morpheme and as distinct allomorphs of that morpheme. Neither allomorph is ever instantiated as an affix, and both have been shown to trigger final-consonant deletion on the stems to which they attach. The primary motivation for positing this distinction, following Tan (2023), is that the $v_{[+HAVE]}$ allomorph conditions syllabic Agr, but it would be ideal to have a clear way to differentiate $v_{[+BE]}$ and $v_{[+HAVE]}$ as allomorphs inherent to the allomorphs themselves. Perhaps further examination of Uab Meto verbs will reveal some feature that I have missed. One potential route concerns unaccusativity and/or unergativity diagnostics. Given that $v_{[+HAVE]}$ is conditioned by the presence of a Voice head that introduces an external argument ($Voice_{[D]}$) and most often forms intransitive verbs, it would be nice to have other evidence for this structure. Unfortunately, as discussed extensively in Tan (2023: 171-181), reliable tests for unaccusativity and/or unergativity in Uab Meto are yet to be found. Such tests could potentially help address other general questions in Uab Meto verbal syntax, such as why causativizing unaccusatives and causativizing unergatives appear to produce identical results syntactically, as in Acehnese (Legate 2014).

The major remaining question of chapter 3 is whether there is a simpler analysis of the agreement-prefix allomorphy patterns that is both equally restrictive and equally empirically viable. As noted in section 3.4.7, there are theories of allomorphy where allomorphic conditioning

does not rely on structural or linear adjacency (Bobaljik 2012; Choi & Harley 2019; Moskal & Smith 2016). These allow one to avoid positing any operations like Pruning or Obliteration, at the expense of more complicated conditioning environments to rule out competing conditioning factors. Such theories are also harder to falsify, because one can more readily alter the conditioning environments if a datapoint comes up that disproves a particular formulation. On the other hand, as discussed in section 3.5, analyses like Tan (2023) are substantially simpler than the one presented here, and being limited to conditioning from structurally and linearly adjacent Voice, quite restrictive, but at the expense of not being able to account for some of the data. Hopefully the facts have been described clearly enough here that others can obtain a good grasp on the data and reanalyze them if they so desire. The discussion in section 3.5.4 lays out the patterns that any alternative analysis needs to account for and provides some potential analytical starting points.

There are also other broader theoretical questions that come out of chapter 3. One such question is the nature of variation in the effects of Vocabulary Insertion (VI). Uab Meto VI proceeds root-outwards and does not overwrite grammatical information. This largely aligns with the view in Harizanov & Gribanova 2014 and Embick (2015). However, others have argued that VI overwrites grammatical information (Bobaljik 2000) or that it is not strictly root-outwards (Deal & Wolf 2017). Often, different data are used to motivate these conclusions, which begs the question of whether there is in fact cross-linguistic variation in how this operation proceeds. A second theoretical question from this dissertation concerns the idea that phonological conditioning outranks grammatical conditioning in the selection of allomorphs. McCarthy & Prince (1993) and Harizanov & Gribanova (2014) have data that suggest this conclusion, while Paster (2009) has data that argue for the opposite. This is perhaps another area of cross-linguistic variation. These questions are ultimately both data questions, and they make the case for more and continued work on understudied languages like Uab Meto and many others.

An obvious extension of chapter 4 would be to find more languages with nominative alignment in their agreement and case assignment of the low Uab Meto type. Determining basic morphological alignment is fairly straightforward, and this chapter provides a number of replicable tests to demonstrate low agreement. Based on evidence available to me now, the first place to look is other languages of southeastern Indonesia, many of which appear to be following a similar diachronic pathway to the development of Uab Meto's subject-aligned but low agreement (Tan 2021).

Assuming any other languages of Uab Meto's agreement-type are found, one can see if any of the properties associated with Uab Meto's agreement being low and divorced from case assignment are also found in the other languages. This would begin to allow for the development of a typology of clustered properties associated with high and low nominative agreement. Do other low-nominative languages allow verbs to agree with DPs of any case marking? Do other low-nominative languages allow verbs in the same clause to agree independently? What other properties do low nominative languages commonly seem to exhibit? Based on the fact that I am among the first people to propose this form of agreement, it is either not very common, or we as a field simply lack enough data on the languages of the world to know.

For now, one can draw the theoretical conclusion that the operation that results in ϕ-agreement on verbs is separable from a more abstract Agree operation (Chomsky 2000, 2001) that triggers EPP movement of a DP to subject position and nominative case assignment there. In Uab Meto these

operations are clearly distinct. More cross-linguistic data should clarify the degree to which Uab Meto is exceptional in separating these operations or whether these operations should be separate by default in the syntax, with the merging of them into a single head being an optional and less common choice.

This dissertation has primarily been theoretically oriented in its goals, but the analyses presented in this work were made possible through a long process of documentation and description. Many of the example datapoints in this dissertation are naturalistic, and such examples are often the first place that I encountered the phenomena that have become the focus of this dissertation. Even arriving at accurate transcriptions often involved significant back and forth with my teammates Yoakim Kenjam and Nona Seko and co-researcher Tamisha Tan as we figured out exactly what was said. As noted in section 1.3.1, my journey working on Uab Meto began somewhat through chance. The documentation and training program could have paired me with different teammates who speak a different language. But I began to work on Uab Meto, and in that process I have helped to increase the documentation of the language and found many interesting datapoints for linguistic theory. This process demonstrates the benefits of working on understudied languages. We can have a greater record of one of humanity's most fascinating traits, and we can likely find answers to the questions posed above and to many others by engaging in this type of work.

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