

The Northern/Putumayo Basin dialect of Máíhĩki: a field report

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Introduction

The purpose of this paper is to sketch the principal differences between the varieties of Máíhĩki traditionally spoken in the basin of the Putumayo River of far northeastern Peru (hereafter “Northern Máíhĩki,” NM) and the varieties of that language spoken in the basin of the Napo River (“Eastern and Western Máíhĩki,” EM and WM). NM manifests significant grammatical differences from the Napo varieties in segmental phonology; verbal inflectional and derivational morphology (particularly in the prosodic behavior of verbal inflectional morphemes); the morphosyntactic behavior of classifiers; and the morphosyntax of some clause-linking constructions.

In the following, I begin with a brief discussion of the current population of speakers of NM, the geographical distribution of these speakers across the Putumayo basin, and the process of language shift from NM to Spanish within the formerly NM-speaking community (§1). This section includes a short history of Máíhuna settlements in the Putumayo basin from approximately 1930 to the present (§1.2), which is crucial to understanding the linguistic variation which now exists within the NM speech community. I then turn to the major differences between NM and Napo varieties of Máíhĩki in segmental phonology (§2), finite verbal inflectional morphology (§3), verbal derivational morphology (§4), non-finite verbal morphology (§5), and nominal morphology (§6). I also summarize some minor points of variation between NM and other varieties of Máíhĩki in purposive and conditional constructions (§7) and in issues of lexicon (§8).

1 Speakers, location, and demographics

1.1 Speakers and present locations

At present, there are approximately 12 living individuals who identify themselves, and are recognized by one another and by other Máíhĩki speakers, as full speakers of NM. The 12 speakers range between approximately 85 years and 35 years of age. The youngest person who is consistently identified by others as a full speaker, Otilia López Gordillo, was born in

approximately 1962. Sabino Gonzales Flores, born 1979, and his late brother Lizardo, born 1973, were also occasionally identified to me as speakers, although their production shows significant simplification of morphosyntax relative to that of older speakers.

Of the 12 speakers, 11 currently reside in the Putumayo basin. Seven live primarily in the town of San Antonio del Estrecho (Estrecho). These individuals are Trujillo Ríos Díaz (TRR), Justina Gonzales Santamaría, Soraida López Algoba (SLA), Pedro López Algoba (PLA), Adriano Ríos Sanchez (ARS), Hernando Sanchez Valles, and Otilia López Gordillo (OLG). The Estrecho speakers believe that there is also one more NM speaker in the town, a woman born in a Máíhuna settlement on the Algodón in approximately 1920 and known as Avelina Yanayaquillo, who married into a Witoto family living nearby and subsequently moved to Estrecho with them. I have confirmed that this person is still alive and was born on the Algodón in the late 1920s or early 1930s. However, the speakers report that Avelina no longer recognizes them and has limited ability to communicate in any language.

Four of the five other speakers of NM reside primarily in the village of Tótoya (also known as Totolla or San Pablo de Totolla), located on the Algodón near the mouth of a tributary known as the Algodoncillo. These individuals are Jorge Gonzales Santamaría (JGS), Enrique Ríos Díaz (ERD), Federico Lopez Algoba (FLA), and Sabino Gonzales Flores (SGF). FLA and SGF also maintain houses in Estrecho and reside there on a seasonal basis, and ERD also seasonally lived in Estrecho until about 2012. Finally, a single NM speaker, Sofia Valles Sanchez, resides with her grandchildren in the city of Iquitos.¹

1.2 Locations of former Máíhuna settlements in the Putumayo basin

Oral history narratives by the NM speakers, together with baptismal records maintained by the Catholic mission at El Estrecho, indicate that until approximately 1950, two distinct Máíhuna settlements existed in the Algodón basin.

One settlement, at a site known as Chabecochoa (but without a known name in Máíhiki),

¹ A note on speaker names: Many older NM speakers have been known by more than one set of surnames. In this report, I use the surnames which speakers prefer, even where they conflict with baptismal records. The speakers' surnames should not be used to make any inference about their kinship relations.

formed in the late 1920s and continued until approximately 1950. This settlement was located about one day by oar downriver from the current site of Tótoya, and consisted of the extended family of Basilio Ríos, a man belonging to the *íyèbàhì* clan. Basilio's children Trujillo, Enrique, and Adriano report that Basilio was born in either the Sucusari basin or the Apayacu-Ampiyacu region. Basilio's parents died during his childhood, and he was subsequently taken to live in the household of a *patrón* named Jose Ríos (namesake of a large number of Máihuna people living on the Napo). Subsequently, Basilio moved to the Putumayo region in order to find a wife. After marrying the daughter of an Algodón family in the late 1910s or early 1920s, he settled at Chabecocha with his new wife, as well as his father-in-law Santiago (a member of the *déibàhì* clan) and his mother-in-law. All of Basilio's six children were born at Chabecocha, and at least one – born between approximately 1920 and 1925 – continued to reside there through marriage and adulthood.

During the period at which Basilio and his family resided in Chabecocha, the other Máihuna families in the Algodón basin were moving in succession between a variety of sites located significantly upriver of the mouth of the Algodón. This semisedentary group consisted, at the time, of no more than four extended families: three headed by men belonging to the *óyòbàhì* clan, and one headed by a man belonging to the *déibàhì* clan. The *óyòbàhì* brothers Hilario and Roberto López, a shaman, were the principal leaders of the group.

Former members of the upriver group state that between 1945 and 1955, they resided on small tributaries of the Algodón, some distance inland from the main river. SLA, who has the most detailed memory of this period, recalls that she spent her childhood in two areas a significant distance upriver from the current site of Tótoya: a clearing known as “Míní Ñùtákò,” and a number of different sites on the creek known as Sòògáyà. Both of these settlement sites would be quite difficult to access by water from the Algodón. Míní Ñùtákò is located approximately one day by oar upriver from Tótoya and two hours' walk into the forest, and some of the sites on Sòògáyà where SLA's family lived were sufficiently far from the course of the Algodón that it was possible to walk from their settlements to the headwaters of Mítòíoyà (“Curupa”), a tributary of the Yanayacu, in a single day.

Besides this geographical information, SLA's oral history narratives also provide three

important clues to the history of the Máíhuna population of the Algodón basin. First, SLA (as well as some other speakers descended from the upriver group, including FLA and the late LGF) recalls that the families who made up the upriver group had a very strong fear of infectious disease and categorically did not remain at any site at which a person had died.² Second, SLA also remembers that her grandparents' generation, who would have been born between roughly 1890 and 1910, fled the main Algodón and went to live on Soogáya specifically because they were afraid of mestizos who had been (violently) moving into the Algodón. Once all of the adults in this generation had died, SLA remembers, her parents' generation left the small tributaries of Sòògáyà on which they had been living and began to spend more time on the main Algodón. Finally, SLA and TRR both believe that the Máíhuna population of the Algodón was, in the relatively recent past, many times larger than it has ever been in their lifetimes. This belief is based in part on oral history, in part on the great abundance of old gardens in the upriver area of the Algodón, and in part on the speakers' memory of a large number of deaths among Máíhuna people living on the Algodón between approximately 1935 and 1955.³

These oral history recollections, together with the small size of the upriver group within the living speakers' memory, suggest that the upriver group probably assembled in the early 20th century from survivors of a larger Máíhuna population who – decimated by the violence and disease of the Rubber Boom – fled away from the Algodón proper and into small, remote tributaries in order to avoid further contact with mestizos. On this hypothesis, prior to the early 20th century, Máíhuna people inhabited a much larger area of the Algodón basin and the interfluvial area between the Algodón and the headwaters of the Yanayacu, possibly forming a single continuous settlement area with groups living on the Yanayacu.⁴ This theory also accounts well for the large number of Máíhĩki place names on the Algodón, particularly

2 The living NM speakers seem to share this aversion to living at a site in which relatives have died. SLA and OLG both told me that their fathers, Hilario and Roberto, told them on their deathbeds not to continue living in Tótòyà. Some EM speakers also told me that they had moved immediately after relatives' deaths.

3 The speakers have different accounts of what caused this population reduction. TRR believes that it was infectious disease. SLA admits that some people died due to disease, but claims that many more committed suicide by drinking barbasco after their relatives had died from other causes. Whatever the cause, the deaths were very numerous and may have amounted to as much as half the population of the upriver group.

4 SLA recalls Yanayacu Máíhuna people on hunting and gathering trips from the Napo basin accidentally wandering into her family's garden on at least one occasion in the late 1940s or early 1950s.

on Sòògáyà, the tributary of the Algodón which comes closest to the Yanayacu basin.

Returning to more recent history, the former members of the upriver group recollect being visited at or near Míni Ñùitákò in approximately 1954 by representatives of the Franciscan mission at Estrecho. These individuals, led by one Fr. Médard André OFM, then head of the mission, employed a combination of rhetoric and gifts of manufactured goods to persuade the leading men of the upriver group to stop traveling between sites and form a permanent settlement downriver on the main Algodón. The upriver group obeyed André and resettled downriver, at the current site of Tótoya, by the mid- to late 1950's.

Simultaneously with the resettlement of the upriver group at Tótoya, residents of the settlement at Chabecocha began to abandon it. Basilio, his wife, and Santiago all died of measles in approximately 1950, and their death was soon followed by the death from a respiratory disease of Basilio's adult son Samuel and several of Samuel's children. As Chabecocha was now without adult men, the former residents moved to the new village at Tótoya, and the settlement had completely emptied by 1955.

1.3 Speaker demographics and language shift

Following the relocation of both the upriver and the Chabecocha families to Tótoya in the 1950s, a large proportion of Máihuna boys began to attend the Franciscan mission's boarding school at Estrecho. Between the years of approximately 1955 and 1970, all Máihuna boys born in the Algodón, and a small number of girls, spent at least two years at the boarding school. The displacement of Máihuna boys through residential education appears to have been a primary force driving language shift away from NM. All Máihuna men born between 1930 and 1955 who attended the boarding school report that they were monolingual in NM when they began primary school at the mission, and at least bilingual – if not dominant – in Spanish by the time that they left it. From the comments of these individuals about their boarding school experiences, I suspect that attending the school and living in Estrecho imparted them with the belief that their culture was inferior to *mestizo* society and their language inferior to Spanish, and that the former students returned from the mission to the

village in the late 1960s and early 1970s with a strong inclination to speak Spanish as much as possible.⁵ Some of this generation of students, including Eloy López Algoba (born about 1955) and Martha Sanchez López (born about 1962), had their knowledge of NM so eroded by living in predominantly *mestizo* society, first at the boarding school and later in other urban environments, that they no longer consider themselves full speakers of Máfhĩki.

The change in language use among men and boys occasioned by the mission's activities and other factors in the 1960s and 1970s, though, did not generally extend to women and girls. Soraida recalls being entirely monolingual in NM at the birth of her first child in about 1962, and speaking primarily NM until the establishment of the primary school in Tótoya in 1974. From her memories and those of other speakers, it appears that women of her generation (born in the 1940s) never attended school, had minimal contact with *patrones*, and therefore did not acquire significant knowledge of Spanish until at least the late 1960s. Yet with the arrival of a primary school in Tótoya in the early 1970s, these women began to experience strong pressure from the (Máfhuna) schoolteacher, Hernando Ríos Valles, to speak Spanish rather than NM. This pressure seems to have intensified after Hernando departed from Tótoya and was replaced by a *mestizo* schoolteacher in 1976.

As a result of these and doubtless other factors, by the mid-1970s the proportion of daily communication in Tótoya which took place in NM had declined sufficiently that most children growing up in the community did not acquire native speaker competence in the language. With the exception of the Gonzales Flores brothers, no individual born after 1965 has been identified by others as a fluent speaker of NM. Ethnically Máfhuna people born in Tótoya between 1965 and approximately 1985 are generally semi-speakers or understanders of the language, while people born after 1985 and/or raised in Estrecho have at best a limited passive knowledge of NM.

It is important to note that shift from NM to Spanish in the formerly NM-speaking community has taken place simultaneously with significant migration of Máfhĩki speakers from the Napo

⁵ Men born in the 1930s did not attend the boarding school; I believe that ERD, born about 1940, is the oldest speaker to have been to school. However, the two surviving men born in the 1930s, TRR and JGS, had both learned a considerable amount of Spanish by the 1970s – TRR by joining the Peruvian military, JGS probably by working for a labor *patrón*.

basin to the NM dialect region. Beginning in the late 1950s, the majority of men from the NM dialect region traveled to other Máihuna communities in order to find wives, and upon marrying, brought their partners – and in many cases, also their father-in-law and his family – back to the Algodón basin.⁶ Due to the successive migration of several WM-speaking families to the Algodón by this means, WM speakers (some 15 of whom live in the Putumayo basin) now outnumber NM speakers in the region.

2 Segmental phonology

2.1 Sound changes: /h/-deletion and /k^w/ ~ /k/

NM, particularly as spoken by former members of the upriver/Míní Ñùitákò group, exhibits two sound changes distinguishing it from Napo varieties of Máihĩki. These changes are deletion of morpheme-internal /h/ relative to EM and WM, and a correspondence of EM and WM /k^wa-/ to NM /ko-/ in morpheme-initial position.

Deletion of /h/ is by far the difference between NM and other varieties of Máihĩki which is most perceptually salient to the language’s speakers. This process only targets morpheme-internal tokens of /h/ and does not, for any speaker, affect root-initial or morpheme-initial tokens of the segment. (1) - (6) below provide examples of /h/-deletion in a variety of morpheme-internal phonological environments. I have not observed any change in nasality due to /h/-deletion in the speech of my NM consultants.

- (1) Oral, HL root: NM *gáè-* ~ WM *gáhè-*, EM *áhè-* “descend, travel downriver”
- (2) Nasal, HL root: NM *níò* ~ WM, EM *níhò* “wife”
- (3) Oral, HH root: NM *góé* ~ WM *góhé*, EM *óhé* “hole”
- (4) Nasal, HH root: NM *íí* ~ WM, EM *íhí* “husband”
- (5) Oral, LL root: NM *gàì-* ~ WM *gàhì-*, EM *àhì-* “be slippery”
- (6) Nasal, LL root NM *gìèbì* ~ WM *gìhèbì*, EM *ìhèbì* “bird sp”

⁶ This marriage pattern appears to have been due to a general gender imbalance in the adult Máihuna population of the Algodón (probably caused by women leaving the Algodón basin for urban areas) and more specifically to a scarcity of women who were eligible as marriage partners for *óyòbàhì* men.

The extent of /h/-deletion varies greatly among speakers of NM depending on the circumstances of their acquisition of the language and the intensity of their contact with speakers of EM and WM. SLA and OLG, who are married to men from the NM dialect region, exceptionlessly delete /h/ in morpheme-internal position both in naturalistic speech and when asked for citation forms.⁷ On the other hand, SLA’s brothers PLA and FLA, both of whom are married to WM-speaking women, generally produce /h/-less forms in naturalistic speech but will occasionally volunteer the WM form with /h/ when asked for the citation form of a lexical item. I observe a similar continuum in /h/-deletion between the brothers TRR, ERD, and ARS. TRR, who is oldest of the three and presumably spent the most time with their EM-speaking father, retains /h/ in the citation form for 7 of the 10 items on a diagnostic list but occasionally deletes it for the same items in naturalistic speech. His brother ARS, raised by an NM-speaking aunt, deletes /h/ in all of the items on the list as well as in his ordinary speech. This should be a topic for further sociolinguistic research.

The correspondence of EM and WM /k^w-/ to NM /k-/ is also very salient to speakers. The /kw/ ~ /k/ correspondence holds exceptionlessly when the WM /k^w/ token is morpheme-initial and followed by the vowel /a/. It is exemplified by (7) - (10) below.

- (7) NM *kòrù* “single-file line (free noun); stand of palm trees (classifier)” ~ WM, EM *-k^waru* “stand of palm trees (classifier)”
- (8) NM *-kɔpa* “CL.PL:sheet” ~ WM, EM *-kwapa* “CL.PL:sheet”
- (9) NM *kòkò* “cook” ~ WM, EM *k^wàkò* “cook”
- (10) NM *kòkòhĩtĩ* “left hand” ~ WM, EM *k^wàkòhĩtĩ* “left hand”

This correspondence does not affect the non-initial /kwa/ sequence in words such as *káók^wà* “peccary species” and *ú^wá-* “serve drink.” Furthermore, speakers – including SLA and OLG, who appear to represent the form of NM most phonologically divergent from Napo varieties – tend to vary their productions of items involved in this correspondence between the reflex with /k^wa/ and the reflex with /ko/. I suspect that this is a sporadic change which has been

⁷ The only monomorphemic form with intervocalic /h/ which I have observed in these women’s speech is *tótóhìò* “duck sp,” which I suspect is onomatopoeic.

complicated by the introduction of many speakers of WM, who have only the /k^wa/ reflex for these items, to the speech community.

Additionally, the /k^w/ ~ /k/ correspondence also takes place sporadically in some words which, in WM, have initial /k^we-/ or /k^wi-/. As this correspondence is not regular and there is considerable variation in the reflexes of /k^we-/ and /k^wi-/ between the consultants, I do not attempt to describe it here; please consult the lexical database instead.

2.2 Other phonological differences

Aside from the sound changes affecting /h/ and /k^wa/ ~ /ko/, some speakers of NM manifest minor points of phonological variation involving reflexes of the segment /g^w/. In particular, for an adverb meaning “just, only” and derived from the verb “to think” (WM and NM *g^wásá-*, *g^ósá* ~ EM *básá-*), ARS and his siblings use the form *másá*, while other speakers of NM employ *g^ósá*. This is probably a variant EM form which the brothers acquired from their father. Similarly, SLA and siblings use *wî-* “be afraid,” also found in EM, in place of *g^wî-*, the form preferred by WM speakers and other speakers of NM. I take these points of variation, as well as the /k^w/ ~ /k/ correspondence, as evidence that the labialized velar segments found in Máhĩki have been diachronically somewhat unstable across varieties.⁸

One additional phonological difference that bears mention involves the phonetic realization of the phoneme /d/ ~ /r/. In both WM and EM, this segment is invariably realized as the voiced stop [d] in word-initial position and varies somewhat between [d] and [r] in word-medial position. In NM, however, this phoneme is frequently tapped in utterance-medial, word-initial position, particularly if the segment follows a rounded vowel or [a]. NM speakers find this difference between the Napo varieties and their variety quite salient: I was once reproached for pronouncing an utterance-medial token of *dóéàkìnà* “ancestors” as [dóéàkìnà] rather than one speaker’s preferred [róéakìnà]. Additionally, in song and chant the segment is generally tapped regardless of the preceding vowel.

⁸ Two further points of evidence for the instability of the labialized velar segments come from the noun meaning “eye” and the verb root meaning “serve drink, *convidar*.” These items are respectively *ɲák^wà* and *úk^wá-* in the speech of our main WM consultants. In both the EM and the NM dialect regions, these items vary between the forms with /k^w/ cited above and corresponding forms with a plain velar /k/, *ɲákò* and *úká-*.

3 Finite verbal inflectional morphology

NM manifests major differences from EM and WM in many aspects of verbal morphology, above all in the inflectional morphology of finite verbs. I observe three major points of difference between NM and other varieties of Máíhĩki within the finite verbal paradigm: the prosodic behavior of the present and past tense declarative suffixes for regular class verbs (§3.1); the shape of the past tense declarative suffixes for regular class verbs (§3.2); and the past tense declarative paradigm of *ni*-class verbs (§3.3). NM speakers also show significant internal variation in the past tense interrogative and declarative paradigms for regular-class verbs, and even greater variation in the past tense paradigm for *ni*-class verbs. I discuss the nature of this variation and its possible historical sources in §3.2 and §3.4. Finally, in §3.5, I turn to a pair of inflectional suffixes which are *not* observed in NM: the past declarative suffix *-gu* and the present interrogative suffix *-ye*. The absence of these variants from NM allows significant inferences about their sources in other varieties of Máíhĩki.

3.1 Prosodic behavior of finite verbal inflection

Prosodic behavior of finite inflection in intransitive clauses

In the Napo varieties of Máíhĩki, according to our current analysis, H tone always spreads from an HH verb root or an intrinsically HH verbal suffix to an immediately following present tense (for all verbs) and past tense (for regular-class verbs) declarative inflectional suffix. Tone spreading of this type is absent from NM: HH verbs do not spread the root's H tone to finite inflectional suffixes. Rather, the inflectional suffix surfaces as L due to the language's ALIGN-L(HL,PRWD) constraint. This pattern holds for both regular- and *ni*-class verbs.

On the basis of my auditory perception, I previously judged that HH verbs spread their tone to finite inflectional suffixes in transitive clauses in NM, but did not spread the tone in intransitive clauses. In order to supplement my auditory judgement of this phenomenon, I recorded 24 careful tokens of present-tense declarative forms of regular-class and *ni*-class HH verbs in intransitive clauses for acoustic analysis. In order to avoid problems with

utterance-final phonetic downdrift of H tones, the consultant (ARS) was prompted to produce the tokens in the frames [hà̀nà yíkíhùnà X hì̀kàmà] “now say, ‘we are Xing”’ and [hana kákì X hì̀kàmà] “now say, ‘he is Xing.” I initially attempted to record the first-person tokens with a first-person singular subject for consistency with Michael (2012), but ARS frequently produced the future tense when this frame was used. I therefore abandoned the first person singular subject in favor of first-person plural and third-person singular subjects in the exemplary tokens.

After recording the items, I segmented the 10 correctly framed tokens in the recording into morphemes using the annotation function in Praat, then used the software’s “Get Pitch” function to obtain the average pitch for each HH verb root and each word-final inflectional suffix. For the tokens with the suffix *-yi* I found that the mean difference between the mean pitch of the HH root and the mean pitch of the inflectional suffix in each of the tokens was 13.715 Hz, with the smallest difference at 7.195 Hz and the largest at 21.707 Hz. For the tokens with the suffix *-hĩ*, the mean difference in mean pitch between root and suffix was 24.944 Hz, with a minimum difference in means of 14.053 Hz and a maximum difference of 34.262 Hz. As the recording also included a number of tokens of the sample verbs which were not uttered in the tone frame, I also segmented 8 non-framed tokens in order to obtain a larger data set. (6 tokens were excluded from the analysis because the inflectional suffix was too short in duration to reliably segment in Praat.) When I included these tokens in the data set, I found that the mean difference in mean pitch (across all framed and non-framed tokens) between root and suffix was 15.178 Hz for tokens of *-yi* and 24.817 Hz for tokens of *-hĩ*.

Although much more phonetic analysis of careful tokens, as well as of naturalistic tokens in the NM audio corpus, will be necessary in order to confirm the absence of H tone spreading in intransitive verbs in this dialect, I consider this data to provide preliminary confirmation of my auditory judgement that NM lacks tone spreading from HH roots in intransitive clauses.

Prosodic behavior of finite inflection in transitive clauses

I previously believed that, despite the lack of tone spreading from HH roots in intransitive clauses in NM, an HH verb root in a transitive clause does spread its H tone to the inflection under certain morphological conditions. Specifically, I hypothesized, tone spreads from the root of an HH verb to finite inflection when the verb has an expressed patient (not beneficiary) that is either (1) marked with the specific object suffix *-re*, (2) marked with a nominal classifier suffix or the nominal plural suffix, or (3) postverbal (even if not marked with *-re*, the plural, or a classifier).

In order to confirm these auditory judgements, I repeated the acoustic analysis described above for a set of 32 tokens of HH verbs in transitive clauses, marked with the suffixes *-yi*, *-hĩ*, *-bi*, and *-gi*, recorded with ARS. I did not attempt to use a tone frame for the majority of these tokens, as the ARS found it difficult to repeat a clause with an expressed object within the tone frame. Upon segmenting the tokens of the verbs in transitive clauses, I found that there were, in fact, significant differences in mean pitch between the roots and the suffixes. The mean difference in mean pitch between suffix and root for the suffix *-yi* was 12.262 Hz; for the suffix *-hĩ*, 19.279 Hz; for the suffix *-bi*, 14.623 Hz; and for the suffix *-gi*, 19.851 Hz.

These mean differences are somewhat smaller than those found in the intransitive clauses, and for two tokens in the set, the root and suffix differ in mean pitch by less than 2 Hz. Nevertheless, this data leads me to seriously question my previous judgment that root H spreads to the inflection in these clauses. The spectrograms of the tokens recorded for the acoustic analysis provide a clue as to the phonetic source of my previous judgment. In the tokens on the tone frame recording which have the smallest difference in mean pitch between the root and the inflectional suffix, all of which bear the suffix *-yi*, the duration of the inflectional suffix is extremely short, between approximately 100 and 160 ms. Additionally, the spectrogram shows very little or no decrease in voicing between the final vowel of the root and (what I auditorily judge to be) the vowel of the inflectional suffix, and the formants are also quite stable between the two vowels. Figure 1, showing a token of *íchúyì* “we are giving” in a transitive clause, provides an example of this postlexical phenomenon. (Impressionistically, I think that this process takes place more often in transitive clauses, perhaps because the

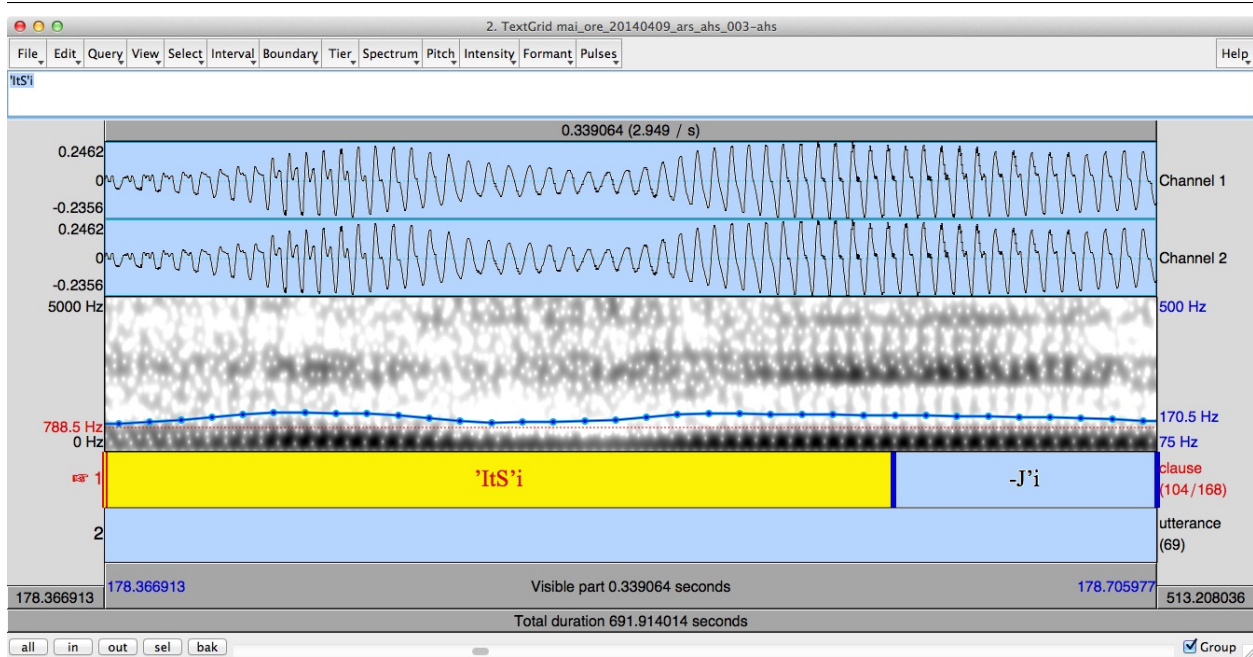


Figure 1 ARS production of *íchíyí* in transitive clause

verb in a transitive clause is more frequently utterance-medial.)

Notice the stability of both the formants and the intensity from the release of [tʃ] to the end of the word in the utterance shown in Figure 1. When a suffix-initial sonorant is seriously lenited, as in this utterance, the vowel of the suffix is phonetically in contact with the final vowel of the HH root. As a result, the phonetic realization of an item such as /íchí-yi/ – even in careful speech – is frequently [íchî], or more narrowly, [íchí:i], with the duration of the root-final H vowel greatly exceeding the duration of the vowel in the suffix. I must previously have misperceived forms with a root-final H tone vowel followed by a shortened and lenited inflectional suffix, i.e. of the phonetic shape [ĆV́ĆV́:ǂ], as representing lexical /ĆV́ĆV́ĆV́/ rather than the correct /ĆV́ĆV́ĆV́/.

I have not detected any dialect-internal variation in H tone spreading among my NM-speaking consultants, even those who are most influenced by Napo varieties of Máihiki. Additionally, the prosodic behavior of future declarative verbal inflection and all interrogative inflection is identical in NM and in the Napo varieties. The prosodic behavior of the intrinsically H tone suffixes *-má* “clausal negation” and *-hó* “change of state,” and of inflectional suffixes following those morphemes, is also the same in NM as in the Napo varieties.

3.2 Past tense declarative paradigm of regular class verbs

The NM consultants recorded to date display two paradigms for past tense, declarative mood inflection of regular-class verbs. TRR, ERD, and ARS, who constitute the remainder of the group which formerly lived at Chabecocho, employ a paradigm which is segmentally identical to the EM and WM past tense, differing only in the prosodic behavior of the suffixes when they immediately follow an HH verb root. Table 1 gives this paradigm, which I will henceforth refer to as “the /g/ paradigm.” Speakers who employ the /g/ paradigm have a past tense interrogative paradigm identical to the EM and WM past tense interrogative.

	SG	PL
LOCAL	-bɪ	-bɪ
3.FEM	-gɔ	-bɪ
3.MASC	-gɪ	-bɪ

Table 1 NM regular-class declarative past tense paradigm with *-gɪ/-gɔ*

The NM consultants who were formerly members of the upriver group, or who are descended from members of it, do not employ the paradigm shown in Table 1. Rather, these speakers – SLA, PLA, FLA, and OLG – use a past tense declarative paradigm for regular verbs in which the third person singular suffixes begin with the segment *-a* and are segmentally identical to the singular masculine and feminine copular suffixes (see §4.2). The upriver speakers’ past declarative paradigm, which I will call “the /a/ paradigm,” is shown in Table 2.

	SG	PL
LOCAL	-bɪ	-bɪ
3.FEM	-aɔ	-bɪ
3.MASC	-aɪ	-bɪ

Table 2 NM regular class declarative past tense paradigm with *-aɪ/-aɔ*

The speakers who use the /a/ paradigm in the declarative mood also have a transparently related paradigm for the interrogative mood. Table 3 gives the past tense interrogative paradigm for regular class verbs displayed by these speakers.

Considering the distribution of the /g/ and /a/ paradigms among speakers of NM, it is very likely that the Ríos brothers, who are the only speakers to use the /g/ paradigm,

	SG	PL
1.SG	-re	-re
2/3.FEM	-ao	-re
2/3.MASC	-ai	-re

Table 3 NM regular class interrogative morphological past tense paradigm with *-ai/-ao*

acquired it from their father Basilio, a speaker of EM (or a variety similar to it) and from the EM-influenced speech of Basilio’s older children, now deceased, who resided with them at Chabecocha. On this theory, the Ríos brothers’ production represents the outcome of dialect contact between the EM variety spoken by their father and the NM variety spoken by the other members of the settlement at Chabecocha (i.e. the in-marriage spouses and in-laws who resided there), while the production of the other speakers represents an NM variety that has experienced somewhat less morphological influence from Napo varieties of Máihiki.

3.3 Past tense declarative paradigm of *ni*-class verbs

The NM speakers also manifest wide internal variation in the past declarative paradigm for *ni*-class verbs, affecting the plural and first person singular forms in the paradigm (which, in all NM varieties as well as in EM and WM, are syncretic with one another). The variation does not affect the second and third person singular forms in the paradigm, nor does it touch any form in the past interrogative paradigm of *ni*-class verbs.

I have so far observed a total of four variants for the plural and 1.SG item in the *ni*-class past declarative paradigm among the NM speakers residing in the Putumayo. One variant is employed by the speakers who formerly resided at Chabecocha, while the three remaining variants are used by descendants and erstwhile members of the upriver group. We now turn to the form of the four variants and their historical origins.

- i. **Chabecocha speakers.** ARS, ERD, and TRR, the three speakers who formerly lived at Chabecocha, invariably employ the CV- form of the verb root for all forms in the past declarative paradigm for *ni*-class verbs. They mark past declarative *ni*-class verbs for plural or 1.SG agreement with the suffix *-hĩ*. Thus, for these speakers, the

1.SG past tense declarative form of the verb *sáí-* “go” is *sáhĩ̃*. The other items in the paradigm are the same as in EM and WM.

- ii. **Upriver speakers PLA and FLA.** The brothers PLA and FLA, who were born at upriver sites on the Algodón, invariably employ the CVi- form of the verb root for the plural and 1.SG forms in the past declarative paradigm of *ni*-class verbs. They mark these forms for subject agreement with the suffix *-bĩ*. This yields *sáíbĩ* as the 1.SG past tense declarative form of *sáí-*. However, these speakers’ paradigm for *ni*-class verbs does not otherwise depart from EM and WM.
- iii. **Speaker SLA.** Speaker SLA was born at an upriver site on the Algodón and is older sister of PLA and FLA. She generally uses the same paradigm for the past tense of *ni*-class verbs as is observed in EM and WM, employing the CV- stem for all items in the paradigm, and the suffix *-hĩ* for plural and 1.SG subject agreement. Her customary 1SG past tense declarative form of *sáí-* is therefore *sáhĩ*. However, SLA’s use of *-hĩ* is not exceptionless. Her recorded texts include some tokens of items with *-bĩ* from the paradigm used by PLA and FLA, and when asked to repeat recorded utterances with *-hĩ* forms, she will occasionally change them to the *-bĩ* variants.
- iv. **Speaker OLG.** Speaker OLG was born at the current site of Tótoya shortly after the formation of the community and is the youngest speaker of the traditional form of NM. Her father was a member of the upriver group (paternal uncle to the López Algobas) and her mother was from the Apayacu-Ampiyacu group of Máíhĩki speakers. To form the plural and 1.SG past tense of *ni*-class verbs, OLG uses the CVV- stem and the suffix *-bĩ*, yielding *sáàbĩ* as the 1.SG past tense declarative form of *sáí-*. Her paradigm for *ni*-class verbs is otherwise identical to EM and WM.

Table 4 summarizes in tabular form the paradigmatic variation described above, again using the verb *sáí-* “go” as the exemplar of the *ni*-class.

Speaker(s)	1.SG, PL	2/3.MASC.SG	2/3.FEM.SG	Notes
ARS, ERD, TRR	sáhĩ	sákĩ	sákò	
FLA, PLA	sáíbĩ	sákĩ	sákò	
SLA	sáhĩ	sákĩ	sákò	Also sometimes uses <i>sáíbĩ</i>
OLG	sáàbĩ	sákĩ	sákò	

Table 4 NM speaker past declarative paradigms for *sáí-* “go”

3.4 Possible sources of variation in past declarative paradigm of *ni*-class verbs

Two of the paradigms presented in Table 4 – the Chabecocho speakers’ paradigm and the paradigm usually employed by SLA – are also observed in EM and WM. In the case of the Chabecocho speakers, this provides an easy explanation for their acquisition of the *-hĩ* paradigm: they must have acquired it, along with the /g/ paradigm for the past tense of regular class verbs, from the EM(-influenced) speech of their father and older siblings.

The paradigmatic variation among the López Algoba siblings and their cousin OLG, however, presents a thornier problem. It is tempting to posit that the paradigm used by FLA and PLA represented the norm in the upriver group prior to the migration of WM speakers to the Algodón, and that SLA has drifted away from that paradigm and towards the *-hĩ* paradigm due to contact with WM speakers. However, there are three major flaws in this account. First, FLA and PLA are known to have much more extensive social contacts with WM speakers than SLA. While FLA and PLA are both married to WM-speaking women, SLA’s late husband was also an NM speaker from the upriver group. Furthermore, SLA has lived in the NM dialect region for her entire life, and all of the individuals who she identifies as having regularly spoken Máíhĩki with her in recent years are also NM speakers from the upriver group. Considering this social situation, it would be surprising were SLA to show more extensive accommodation to WM than her brothers do. Second, FLA and PLA display significant phonological influence of WM on their speech with respect to deletion of intramorphemic /h/, while SLA shows essentially no such influence. Third, I have not observed any morphological influence of WM on FLA and PLA’s speech – in fact, when I have produced EM/WM past tense forms in conversation with them, they have repeatedly corrected me to their own NM paradigms – nor have I noticed any morphological effects

of the long-term accommodation between spouses OLG and ARS (who use quite different paradigms for both regular class and *ni*-class verbs). This suggests that accommodation to close WM-speaking social contacts, even over many decades, is unlikely to spur substantial change in the verbal morphology employed by NM speakers.

I therefore conclude that, relative to the variety of Máfhiki spoken in the Algodón prior to the arrival of Napo speakers, SLA's speech is probably more conservative than that of her brothers, and she is more likely to have inherited the *-hì* paradigm from other members of the upriver group than to have acquired it through dialect contact with WM. This entails that significant paradigmatic variation must already have existed within the upriver group during the late 1940's and 1950's, when SLA was a child – a suggestion entirely consistent with the theory that the upriver group formed from relatively rapid consolidation of survivors of a larger, more geographically dispersed, and more dialectally diverse population.

Finally, we consider OLG's idiosyncratic paradigm with *sáàbì*. It is possible either that OLG acquired this paradigm from the NM speech community in which she was raised, or that she learned it from the EM variety spoken by her late mother, Amelia Gordillo de Jesús (b. late 1930s in the Apayacu basin). Several data points suggest that her *ni*-class paradigm has an NM origin. Positive evidence for an NM origin includes the resemblance between this paradigm and that employed by FLA and PLA, as well as OLG's use of the clearly NM /a/ paradigm for the past tense of regular class verbs. Additionally, I have never observed items from this paradigm in the variety of EM currently spoken in Sucusari, which provides some negative evidence for an NM origin of the *sáàbì* paradigm.

These points aside, OLG does show considerable morphological influence of EM. She employs *-ojo* rather than *-gojo* as the causative suffix, and her iterative element is a Class I suffix *-ání*, as in EM, rather than a lightly grammaticalized verb root *gání*, as for other speakers of NM. These facts make it entirely credible that OLG's grammar closely resembles her mother's and that the *sáàbì* paradigm is derived from the variety of EM which her mother spoke. Given our complete lack of data on the Apayacu-Ampiyacu variety of EM, though, it is impossible to confirm either of these accounts.

3.5 Absence of *-gu* and *-ye* inflectional suffixes from NM

I have found no trace in NM of the past tense declarative suffix *-gu*, employed by some speakers of Máíhĩki residing on the Yanayacu, or of the present tense interrogative suffix *-ye*, used by some speakers of EM and WM. This allows two inferences about the source of these variants in Napo varieties of Máíhĩki.

First, we have eliminated both EM and NM as possible sources of the *-gu* variant used on the Yanayacu. *-gu* must either have co-existed with *-bi* as a past tense marker for some time in what is now the Western Máíhĩki speech community, or been introduced to that region by the immigration of individuals speaking a variety of Máíhĩki significantly different from contemporary EM and NM. Considering that use of *-gu* among Yanayacu speakers appears to be confined to a small number of women aged about 35-55, I am disinclined to believe that *-gu* has a long history in the Yanayacu speech community. It is more likely – especially since many of the *-gu* users are believed to be related to families who came to the Yanayacu relatively recently from the former Máíhuna settlement area at Sapote – that the variant was introduced to the Yanayacu within the last 50 years.

Second, the absence of the *-ye* variant from NM provides significant new information about the source of this variant in the Yanayacu speech community. We have observed the *-ye* variant of the present tense interrogative paradigm in the speech of several Yanayacu speakers aged between approximately 40 and 60, and also in the production of EM speakers Felipe Navarro Ríos and Romero Ríos Ochoa (RRO), both aged in their early 70s. Although *-ye*, or its nasal counterpart *-ɲe*, appears as the plural and 1.SG present interrogative marker in all Western Tukanoan languages other than Máíhĩki (Skilton 2013: 46), I have not seen consistent use of *-ye* either among EM speakers other than Felipe and RRO or in NM. On these grounds, I submit that *-ye* is a feature of a conservative variety of EM that is preserved in the speech of some speakers born in the 1940s and was lost – due to dialect mixing, analogy with the present tense declarative paradigm, or some other combination of factors – in subsequent generations of speakers. This account suggests that RRO personally introduced *-ye* to the Yanayacu speech community during his years as schoolteacher in Puerto Huamán, a theory which accounts well for both the distribution of *-ye* among Yanayacu speakers (all

known *-ye* users are of an appropriate age to have been RRO's pupils in Huamán) and its absence from the production of NM speakers.

4 Other verbal morphology

NM also shows significant differences from other dialects of Máíhĩki in areas of verbal morphology other than finite inflection. These include the obligatoriness of finite inflection following the suffix *-hó* (§4.1); the form of the copular suffixes (§4.2); formation of imperatives and prohibitives (§4.3); and the form and prosodic behavior of a number of verbal derivational suffixes which are grammaticalized from serial verbs (§4.4).

4.1 The suffixes *-hó* and *-hẽã*

Although finite verbal inflection is obligatory following the suffix *-hó* for most speakers of WM, finite inflection after this suffix is at least optional and at most ungrammatical for most speakers of EM and NM. The EM-influenced Chabecocho speakers of NM appear to follow the EM pattern on this point. In their naturalistic speech, as in that of my EM consultants, *-hó* generally does not co-occur with finite inflection in either the present tense declarative or the past tense declarative. Present and past declarative inflection does sometimes appear following *-hó*, particularly in circumstances where the subject of the verb marked with *-hó* cannot be recovered from context, and the speakers frequently add finite inflection when asked to repeat a recorded token of a verb marked with *-hó*. Nevertheless, it is clear that the great majority of declarative mood, non-future tokens of *-hó* in their speech are not followed by any finite inflection. In future and interrogative contexts, on the other hand, *-hó* is always (or nearly so) followed by finite inflection in the speech of the EM-influenced NM speakers.

The situation is slightly different for the speakers of NM who previously belonged to the upriver group. SLA and FLA never use present or past declarative inflection following *-hó*, and OLG and PLA use it only very sporadically. The upriver speakers do make some use of finite interrogative inflection following *-hó*, but even this appears to be optional in present and past tense contexts. Future inflection following *-hó*, on the other hand, is obligatory,

very probably because the forms would otherwise be ambiguous between future declaratives and non-future interrogatives.

4.2 The copular elements

NM exhibits four copular suffixes, which display agreement for number, gender, and mood. Agreement for person exists only in the interrogative mood. Tables 5 and 6 below show the declarative and interrogative copular paradigms for all speakers of NM.

	Singular	Plural
MASC	-ai	-hã
FEM	-ao	-hã
INAM	-hã	-hã

Table 5 NM declarative copular suffix paradigm

	Singular	Plural
1SG.ANIM	-aye	-aye
2/3.MASC	-ai	-aye
2/3.FEM	-ao	-aye
3.INAM	-aye	-aye

Table 6 NM interrogative copular suffix paradigm

The primary difference between NM and other varieties of Máihĩki on this point is that the declarative copular suffixes in NM do not agree with the subject for person, but do agree for gender. The opposite is true in EM and WM, in which local arguments take *-hã* as the declarative copular suffix regardless of the gender of the referent. This appears to be a point on which dialect contact has altered the grammar of some speakers. The audio corpus contains a small number of uses of *-hã* as the 1.SG copula by NM speakers, and I have also opportunistically heard WM speaker Amelia Mosoline Mogica use *-ai* and *-ao* copulas with local arguments on several occasions.

On a stylistic point, NM also differs from other varieties of Máihĩki in that speakers frequently employ “insubordinate” constructions involving a nominalized verb and the copula, as in

(11) and (12). These constructions often yield a habitual reading and are especially frequent in questions, both information-seeking and rhetorical.

(11) *áǎ́ íchìkòàò, kúchìkì chíákòàò.*

áǎ́ íchì -kò -àò kúchìkì chíá
 food sell/give -SUBORD.FEM.SG -COP.FEM.SG.DECL money gather
 -kò -àò
 -SUBORD.FEM.SG -COP.FEM.SG.DECL

“(Now,) I sell food, I earn money.” (SLA, text say, 4:10; context: speaker compares her habits before and after death of her husband)

(12) *hàkò, yìgà kímà néèhàkìàyè yì?*

hàkò yì -gà kímà néè -hàkì
 mother.voc mother.voc 1SG.PRO -INFO INT.ADV.MANNER do
 -àyè yì
 -FUT.NMLZ.ANIM.MASC -COP.1SG.INT 1SG.PRO

“Mother, mother, what (animal) will I be transformed into?” (PLA, text vi1, 13:26)

4.3 The imperative and prohibitive affixes

Imperative formation is considerably different in NM than in other varieties of Máíhĩki. Three strategies for forming imperatives exist in this dialect. The verb may bear either the pandialectal imperative suffix *-ma*; the pandialectal imperative prefix *ha-*; or the NM-particular imperative suffix *-hĩ*. The suffix *-ma* is not especially frequent as an imperative marker in NM, while *ha-* and *-hĩ* are much more frequent.

The imperative prefix *ha-*, the most frequent imperative marker in NM, immediately precedes the verb root. If the imperative is a serial verb construction, *ha-* appears before the first root in the construction. It bears H tone if the root is LL, but otherwise bears L tone (obeying the ALIGNL(HL,PRWD) constraint). The imperative suffix *-ma* or the polite imperative suffix *-tu* may appear on a verb marked with *ha-*, but neither is obligatory. (13) - (15) provide examples of the *ha-* imperative construction. I believe that all of these examples would also be acceptable in EM and WM, but we should investigate if the tonal behavior of the imperative *ha-* is the same across all dialects.

(13) *hàmínìníkámà.*

ha- mìnì níká -mà
IMP climb stand -IMP

“Stand up!” (ARS, text lom, 1:18)

(14) *hàpíàhài.*

ha- píà -hai
IMP see -ASSOC.MOTION

“Go look (at him)!” (SLA, text sk5, 2:56)

(15) *hádùìmà.*

ha- dùì -mà
IMP- sink -IMP

“Get in the water!” (PLA, text vi1, 14:05)

Beyond *ha-* and *-ma*, NM also has an imperative suffix *-hĩ*. This suffix, which induces a nominal tone pattern on the verb, never co-occurs with either *ha-* or *-ma* and does not appear to be available for prohibitives. Furthermore, imperative *-hĩ* occurs exclusively in oral literature texts within my corpus. As there are also some tokens of an imperative *-hĩ* in EM oral literature texts from older speakers of that dialect, I suspect that *-hĩ* is an archaic feature preserved in NM but mostly lost in the other dialects.⁹ (16) - (18) provide examples of imperative constructions with *-hĩ* from the text corpus.

(16) *ídàrì jíòhĩ míàkìrè áó.*

í -dàrì jíò -hĩ míàkì -rè áó
DEM -CL:PLACE put.3d.obj -IMP your.father -NON-SJ food

“Put down your father’s (plate of) food here.” (ARS, text lom, 7:53)

(17) *yì ágátù m̀ì tíjóhĩ.*

yì ágá -tù m̀ì tíjó -hĩ
1SG.PRO call.out -DS.COND 2SG.PRO answer -IMP

⁹ One data point in support of *-hĩ* as an archaic feature is that a possibly cognate imperative suffix, *-hĩ?ĩ*, exists in Ecuadorian Siona (Bruil 2014: 198).

“When I call out, answer me.” (PLA, text vi1, 10:06)

(18) *káã̀rò mɛ̀nì ʉ́hĩ̀ mɛ̀sáhò̀nà.*

káã̀ -rò *mɛ̀nì* ʉ́ -hĩ̀ *mɛ̀sá* -hò̀nà
 DEM -CL:PLACE climb lie.down -IMP 2PL.PRO -ANIM.PL

“You all, climb up there and lie down.” (SLA, text sk5, 5:49)

In formation of prohibitives, NM shows two minor differences from the other dialects of Máíhĩki. First, when the prohibitive suffix *-bai* appears on an *ni*-class verb, it does not trigger the *-ni* form of the verb. Second, NM speakers almost never use the imperative suffix *-ma* following *-bai*.

4.4 Other derivational affixes

NM also shows some variation from EM and WM in the form and prosodic behavior of several suffixes which probably originated relatively recently as the result of grammaticalization of serial verbs. These are the prior action suffix *-sua* ~ WM *-suba*, *-siba*; the iterative element derived from the verb *gání*; and the terminative element derived from the verb *tíí*. Additionally, NM has a verbal prefix *ha-* which often appears on nominalized verbs and is semantically similar to *-sua*.

Among the suffixes which also exist in EM and WM, the prior action suffix which we know in WM as *-suba* shows few differences in NM. It is a Class III suffix in NM as well as in WM, and its form is *-sua* for all speakers of NM. As the segmental form of this suffix varies a great deal in EM and WM, it is perhaps surprising that variation in the item within in NM is minimal. It should also be noted that this suffix is relatively infrequent in NM, since speakers make more use of the prefix *ha-* to indicate prior action (see below).

The iterative element *gani*, derived from the free verb *gání*- “move in a circle,” is also quite similar in NM and in the Napo varieties. In WM, this item is a suffix marking iterative aspect and displaying the same idiosyncratic tonal behavior as *-gopio* and *-kai*. In NM, *gani* also marks iterative aspect, and always appears following all other verb roots in the construction – but it maintains its lexical high tone regardless of the form of the verb. This indicates that

the element is not an affix *-gani* in NM, but a lightly grammaticalized serial verb, **gání-*. This item has advanced much further down the grammaticalization cline in EM, where it is a Class I suffix *-ání* with inherent high tone (and would probably eventually become a Class III suffix if the grammaticalization process continued).

The behavior of the element derived from the verb root *tíí-* in NM departs more significantly from its behavior in the Napo varieties. In EM and WM, *tíí* is marginal as a free verb, but frequently appears following a verb root, with the tonal behavior of the causative and benefactive. In NM, on the other hand, *tíí* leads two lives. It may appear either with lexical HH tone following the final root in the verbal construction, or as an HL preverbal element */tíí/*. As post-verb-root *tíí-* takes the morphology of an *ni*-class verb, it is somewhat surprising that the preverbal allomorph of the item is *tíì* rather than *tínì*. For that reason, the preverbal *tíì* is probably best synchronically analyzed as a particle grammaticalized from a serial verb, rather than as a semantically bleached serial verb *per se*.

Finally, NM also displays a verbal prefix *ha-*, which I have occasionally seen in EM but never in WM. This prefix, like the homophonous imperative prefix, appears with H tone before an LL root and L tone elsewhere. *ha-* appears on a verb to indicate that the subject of the verb is performing the action denoted by the verb phrase either for the first time ever, or first in some sequence of actions – that is, it is semantically similar, if not identical, to WM *-suba*. Although speakers accept *ha-* with this meaning on finite verbs, all of the examples of this affix in the NM corpus appear on nominalized verbs. (19) - (20) below provide examples of this affix in NM. Some examples of *ha-* in the corpus, such as (19), might also be compatible with an inchoative aspectual meaning for the affix.

(19) *Máínènò jí háyòònù í dáókì jíàhîtà.*

Máínènò	jí	há-	yòò	-nù	í	dáó	-kì
personal.name	3SG.M.PRO	FIRST	work	-CL:TIME	3SG.M.PRO	walk	-SIMUL.SS.SG.M
jíà	-hî	-tà					
see	-3SG.M.PRES	-INFO					

“When Máínenò was creating for the first time, he traveled around looking (at his creation).” (ARS, text cf1, 1:14)

(20) *ĩ̀dàrì hà̀yétékìnà, kãĩ̀ primaria, kátò, núí táyòhà̀chìkìnà bàìyì.*

ĩ̀ -dàrì hà̀- yété -kì -nà, kãĩ̀ primaria kátò núí
 DEM -CL:PLACE FIRST- learn -PRES.REL.SG.M -ANIM.PL DEM *primaria* DEM very
 táyò -hà̀ -chìkì -nà bàì -yì
 pass -ASSOC.MOTION -PAST.REL.SG.M -ANIM.PL live -3PL.PRES

“The (children) who first study here (in Tótoya), when they have passed primary school, live there (in Estrecho, for secondary school).” (SLA, text svc, 5:08)

5 Non-finite verbal morphology

NM also displays a small number of differences from the Napo varieties in nonfinite verbal morphology. These involve the form and obligatoriness of the markers employed on simultaneous subordinate clauses (discussed in §5.1); the switch-reference system in sequential subordinate clauses (§5.2); the formation of past and future nominalizations (§5.3); and the morphology of prospective complement clauses (§5.4).

5.1 Simultaneous subordinate clauses

Simultaneous subordinate clauses are the most frequent type of nonfinite clause in all varieties of Máfhĩki, and it is not unusual for a sentence to contain three or four subordinate clauses of this type. The morphology of both of these clause types varies significantly in NM from EM and WM. First, in simultaneous subordinate clauses, the plural-subject subordinate clause marker *-hĩ̀* is optional in NM. This applies both in plural-subject subordinate clauses which share a subject with the main clause and in clauses of this type which have a different subject from the main clause. This yields the paradigm for simultaneous-clause subordinators shown in Table (7).

Although I have not been able to isolate a specific set of morphosyntactic environments in which the subordinator *-hĩ̀* may be omitted in NM, some generalizations about the distribution of *-hĩ̀* can be gathered from the text corpus:

- i. **Omission of *-hĩ̀* is a feature of the upriver group’s dialect.** Consultants SLA

SC SUBJECT	SAME-SUBJECT (as main clause)	DIFFERENT-SUBJECT
SG.MASC	-kĩ	-kĩ(re)
SG.FEM	-ko	-ko(re)
PL	(-hĩ)	(-hĩ)(re)

Table 7 NM simultaneous subordinate clause markers. Optional elements are enclosed in parentheses.

and OLG, formerly members of the upriver group, freely omit *-hĩ* regardless of speech register, style, and speed (i.e. their omission of the morpheme is not a fast speech phenomenon). ARS very seldom deletes *-hĩ*, and in many of the instances where it is phonetically deleted in his speech, he wishes to restore it in the transcription, indicating that his sporadic *-hĩ* deletion may be an artefact of a postlexical phonological process.

- ii. **Omission of *-hĩ* is sensitive to the lexical contents of the verb.** *-hĩ* is very frequently omitted on posture verbs, on the semantically bleached aspectual verb *bée-* (grammaticalized from a posture verb), and on the semantically bleached aspectual verb *yòò-*. I suspect that this is part of a process of grammaticalization of the latter two verbs into aspectual particles or adverbs (cf. the NM aspectual particle *tíì* and adverbs such as *máchì* “carelessly” < *máchì-* “be blind”). Omission of *-hĩ* is less frequent on the semantically light subordinate verb *níà-*, and less still on semantically heavy subordinate verbs.
- iii. **Omission of *-hĩ* is sensitive to morphosyntax.** In general, *-hĩ* is not omitted if the subordinate verb has one or more suffixes. However, consultant OLG does permit deletion of *-hĩ* without deletion of *-re* in different-subject subordinate clauses, as exemplified in (21). As there is some variation between OLG and SLA, I note that while SLA approved and repeated the sentence in (21), I have never clearly heard her to delete *-hĩ* in a switch-reference subordinate clause without also deleting *-re*.

(21) *áó áírè, hĩkàhĩ, “bàì nògìyì.”*

áó áí -rè hĩkà -hĩ bàì nògì -yì
 food eat -NON.SJ say -3SG.M.PRES game.animal fish.with.line -1SG.FUT

“While we were eating, he said, ‘I’m going fishing.’” (OLG, text ovi, 2:15)

The interaction of deletion of $-h\tilde{x}$ with switch-reference in utterances such as (21) provides an interesting data point about the switch-reference function of $-re$. While regular-class verbs take $-re$ as the sequential subordinate clause marker in all varieties of Máíhĩki, ni -class verbs take no sequential clause marker, and instead surface as the (C)Vni allomorph of the root in sequential subordinate clauses. Therefore, if the suffix $-re$ found in the different-subject simultaneous clause subordinator paradigm is the same as the sequential clause marker $-re$, we would expect the verb in (21) to surface as its CVni form, $\acute{a}ni$. This does not occur in (21); instead, the root surfaces as its CVi $\acute{á}\acute{z}$. This confirms that the switch-reference suffix $-re$ is not the same as the sequential suffix $-re$, but merely homophonous with it.

5.2 Switch-reference in sequential subordinate clauses

NM also differs from the Napo varieties of Máíhĩki in the morphology of different-subject sequential subordinate clauses. In morphologically conservative varieties of EM and WM, a sequential subordinate clause with a different subject from the main clause is marked with $-g\acute{i}re$ (masculine) or $-gore$ (feminine) if the subordinate clause subject is singular, or $-h\tilde{x}re$ if the subject is plural. In NM, these former two morphologically distinct different-subject sequential clause markers, $-g\acute{i}re$ and $-gore$, do not exist.¹⁰ The verb in a sequential clause is simply marked with $-re$ regardless of the relation between the subordinate clause and the main clause subject arguments.

The above notwithstanding, two traces of the switch-reference system observed for sequential subordinate clauses in other varieties of Máíhĩki are found in NM. First, $-h\tilde{x}re$ does carry on its life as a different-subject sequential subordinate clause marker in NM, although it is optional with this function as well as in the different-subject simultaneous clause function. Second, unlike the regular-class verbs, the ni -class verbs still exhibit a distinct paradigm of subordinators for different-subject sequential clause constructions in NM. Table (8) gives this paradigm, which I believe is the same as in Napo varieties of Máíhĩki, using $s\acute{á}\acute{i}$ ‘‘go’’ as

¹⁰ It might be more accurate to say that these items do not exist in the upriver group’s variety of NM, since – while $-g\acute{i}re$ and $-gore$ are completely absent from the recordings which I have made of formerly upriver-dwelling speakers – there are less than five tokens of the suffixes in recordings of ARS. Given the other respects in which ARS’ speech resembles Napo varieties, I take these as being the result of Napo influence.

the exemplary *ni*-class verb. Notice that *ni*-class verb root appears in its CVV- allomorph in this paradigm, rather than the CVi- allomorph which appears in the different-subject simultaneous clause paradigm for *ni*-class verbs.

SG.MASC	sáàkìrè
SG.FEM	sáàkòrè
PL	sáàhìrè

Table 8 NM different-subject sequential clause subordinators for *ni*-class verbs

5.3 Past and future nominalizations

NM varies slightly from the Napo dialects of Máihĩki in the morphosyntax of past nominalizations, as well as in the form of the inanimate and animate future nominalizers.

In WM, past nominalizations which have an singular animate referent are always formed with the animate past nominalizer *-chi* plus a classifier suffix, while past nominalizations with an inanimate referent (or a plural animate referent) are formed with *-se* plus a classifier. In NM, however, a past nominalization with an inanimate referent can bear either *-chi* or *-se* if the subject of the nominalized VP is animate. (22) and (23) provide examples of NM past nominalizations with inanimate referents formed with *-chi*.

(22) *ágáchìyàrè, sòògáyà ǎǎyì, máí báíyà.*

ágá -chì -yà -rè sòògáyà ǎǎ -yì
scream -PAST.NMLZ.ANIM -CL:RIVER place.name SAY -1PL.PRES.DECL people
máí báí -yà
fight -CL:RIVER

“We call (that place near) Sòògáyà the river where (the ghost) screamed, the river where people fought.” (SLA, text aag, 4:46)

(23) *hásù, í hásóchìbì, sáàkì díòhó.*

hásó -bì í hásó -chì -bì sáà
shoot -CL:SINGL 3SG.M.PRO shoot -PAST.NMLZ.ANIM -CL:SINGL take
-kì díò -hó
-SUBORD.M.SG submerge -SG.PAC

“Taking his shotgun, the one he had shot (his assailants) with, he threw it in the water.” (SLA, text aag, 2:28)

Speakers do not generally volunteer inanimate-referent nominalizations with *-chi* in elicitation, and when such nominalizations occur on recordings, the speakers sometimes disapprove them or wish to change the nominalizer to *-se*. However, the number of tokens of inanimate-referent nominalizations with *-chi* in the corpus is substantial enough that I find it very unlikely that this use of *-chi* represents a speech error. My best guess at the difference between *-se* and *-chi* in this context is that *-chi* forms a true relative clause with an implied (if not necessarily expressed) animate subject, while the *-se* plus classifier relative construction is essentially an event nominalization. On this analysis, a form such as *ágáchìyà* in (22) above might be felicitously glossed in English as “the river where she screamed,” and its counterpart *ágàsèyà* as “the river of/associated with screaming.”

Second, in both EM and WM, the future nominalizers used for a nominalization with an animate referent are *-hagì* (masculine) and *-hago* (feminine). While the Ríos brothers employ these same nominalizers, the NM speakers who formerly lived in the upriver group also sometimes use *-hakì* as the masculine future nominalizer and *-hako* as its feminine counterpart. It is noteworthy that the upriver group’s variant produces greater symmetry between the future animate nominalizers and their present- and past-tense equivalents, which also have *-kì* and *-ko* as the final element.

To form a future nominalization with an inanimate referent, NM speakers use the nominalizing suffix *-hai* followed by a classifier, as in WM. They do not have the additional future inanimate nominalizers *-ha*, *-hei*, and *-haye* which are found in EM. On the other hand, they do employ *-haye* as a future event nominalizer, a usage also common in EM.

5.4 Prospective complement clauses

In WM, the verb of a prospective complement clause whose subject is not co-referential with that of the main clause bears the subordinator *-agì* (masculine singular subject) or *-ago*

(feminine singular subject).¹¹ In NM, these subordinators respectively have the forms *-ai*, for non-feminine singular subjects; *-ao*, for feminine singular subjects; and *-hĩ*, for plural animate subjects. Additionally, a clause marked with these subordinators may be used in isolation to issue a directive or request, as in (24).

(24) *kãĩrè hĩkàhĩ, “dékìrè, Adriano yìrè hěóhàìãĩ kátò.”*

kãĩ	-rè	hĩkà	-hĩ	dékì	-rè	Adriano	yì
DEM	-TOP	say	-3SG.M.PRES	whatshisname	-NON.SJ	personal.name	1.SG.PRO
-rè	hěó		-hàì		-ãĩ	kátò	
discard	-ASSOC.MOTION		-PROSP.COMP.SG.M	DEM			

“Then he said, ‘(I want) that guy, Adriano, to drop me off there.’” (SLA, text arg, recording 2, 3:10)

6 Nominal morphology

NM nominal morphology is essentially identical to that of EM and WM. The one significant difference between the varieties on this point involves the monomoraic “adjectival prefixes” which we currently know in EM and WM as *má-* “red” and *bó-* “white.” These two items are bimoraic in NM, with the forms *máá-* and *bóó-*. I take this as evidence that in NM, *máá-* and *bóó-* (like all other property terms in Máihĩki) are bound roots and therefore are subject to the bimoraic root constraint. This issue should be the subject of further research in WM.

7 Morphosyntax

7.1 Purposive constructions

Purposive constructions are a locus of extensive inter- and intra-dialectal variation among Máihĩki speakers. The language’s same-subject affirmative purposive constructions are clearly grammaticalized from reported speech constructions, the outcome of a process which probably began quite early in the history of the Western Tukanoan clade (cf. the description

¹¹ I found no WM data in our files about the form of the prospective complement clause markers for a complement clause with a plural subject.

of Colombian Siona purposives in Wheeler 1987: 163). EM and WM exhibit two forms of the same-subject affirmative purpose construction, which differ only in their degree of phonological reduction from the reported speech source construction. One of the EM-WM purposive constructions (“the *íkì* construction”) involves a future-tense reported speech clause followed by the complementizer; the other (“the *-yíkì* construction”) involves a portmanteau suffix, grammaticalized from future tense inflection plus the complementizer, which appears on the verb of the purposive clause.

While the EM-influenced NM speakers employ both of these constructions, as well as a distinct purposive construction involving a relative clause, the NM speakers who formerly lived in the upriver group do not have the *-yíkì* construction. They express purpose either with the *íkì* construction, or – more often – with a future tense verb immediately preceding the verb of the main clause. In this latter usage, which is also quite frequent in EM and in ARS and brothers’ EM-influenced NM, there is no complementizer or other overt subordinating morphology on the subordinate verb.

Below, (25) and (26) respectively provide examples of the *íkì* construction in NM and its complementizer-free counterpart. Notice from the inflection of the subordinate verb in (25) that in NM the “future” verb of a purposive clause agrees with the subject of the clause for person as well as for gender and number. This represents another difference from EM and WM, in which the purposive clause verb always bears first-person inflection, agreeing with the subject only for gender and number.

(25) *áitètò máí sàsùkò áàchò íkò.*

áitètò máí sàsù -kò áà -chò íí
 anteater.sp people extend.claws -3SG.FEM.PRES eat -3SG.FEM.FUT QUOT/COMP
 -kò
 -SUB.FEM.SG

“Thus the *áitètò* scratches people, trying to eat (us).” (SLA, text sk5, 9:39)

(26) *yì dòikò sáyì dáàbì.*

yì dòì -kò sàà -yì dáà -bì
 1SG.PRO same.generation.relative -CL:FEM take -1SG.FUT come -1SG.PST.NI

“I’ve come to pick up my sister.” (OLG, text bag, 1:59)

Different-subject affirmative purposive constructions also show some differences from their WM counterparts. First, NM speakers rarely employ the different-subject purposive construction involving a *-ma* imperative and the complementizer that is found in EM and WM. Instead, they generally use the prospective complement constructions discussed in §5.4 above; this is probably better considered a stylistic than a grammatical difference. Second, when NM speakers do use the different-subject purposive construction with the imperative, they do not employ an overt complementizer following the “imperative” verb. (27) provides an example.

(27) *yì remedio ínì úkúmà íchì-à Michael yì-rè.*

yì remedio ínì úkú -mà íchì -à Michael yì -rè
 1SG.PRO remedio buy drink -IMP give -3SG.M.PAS personal.name 1SG.PRO -NON.SJ

“Michael gave me (money) so that I could buy and take my medicine.” (OLG, text ovi, 9:29)

NM same-subject and different-subject negative purposive constructions, which are formed with the suffix *-kara*, are identical to their EM and WM counterparts.

7.2 Conditional constructions

Like EM, NM has only two conditional constructions (not the three described for WM in Michael 2012b). These are a same-subject conditional construction with the particle *mání* (\sim WM *màni*, EM *ání*) and a different-subject conditional construction with *-tu*. The EM and NM different-subject conditional constructions with *-tu* are identical and will not be discussed here.

In the NM texts which I have parsed to date, all conditional constructions in which the protasis and apodosis clauses have the same subject are formed with *mání*. The particle *mání*, likely a grammaticalized form of the existential verb *bà-*, is always the final word in the protasis clause, and the protasis is generally to the left of the apodosis clause. The

verb of the protasis clause ending in *mání* may bear either (1) one of the simultaneous subordinators *-kí/-ko/-hĩ*, (2) one of the past animate nominalizers *-chikí/-chiko*, or (3) the past event nominalizer *-se*. The past nominalizers indicate a sequential temporal relation between the protasis and the apodosis clause, while the simultaneous subordinators indicate a simultaneous relation. (28) provides an example of a *mání* clause in which the verb is marked with a simultaneous subordinator, while (29) and (30) provide examples of *mání* clauses with the past nominalizers *-chi* and *-se*.

(28) *káà túkù gáèkàràhĩ mání, máí hànò gékènàrè, gékènàrè tèà, néèyò.*

káà túkù gáè -kàrà -hĩ mání máí hànò gékè -nà
 DEM star descend -NEG.PURP -SUBORD.PL COND 1PL.PRO now frog.sp -ANIM.PL
 -rè gékè -nà -rè tèà néè -yò
 -NON.SJ frog.sp -ANIM.PL -NON.SJ also create -1PL.FUT

“If we want to prevent the star from coming down (to eat us), let’s create *gékè* frogs now (so that the star, hearing their chatter, will believe we are awake).” (ARS, text sol, 7:19)

(29) *máká sáichikì mání, néè jámì sáichikì hóórè dáàhĩ, hóó bàìrà.*

máká sái -chì -kì mání néè jámì sái -chì
 forest go -PAST.ANIM.NMLZ -CL:MASC COND HESIT night go -PAST.ANIM.NMLZ
 -kì hóó -rè dáà -hĩ hóó bàì -rà
 -CL:MASC frog -NON.SJ bring -3SG.M.PRES frog game -LIM

“When he went to the forest at night, he brought back frog, just frog meat.” (SLA, text sap, 0:23)

(30) *jíò káà tíjó sè mání, máí húúmaràbì.*

jíò káà tíjó -sè mání máí húú -má -rà
 3SG.F.PRO DEM reply -PAST.INAM.NMLZ COND 1PL.PRO die.PLACT -NEG -FRUST
 -bì
 -1PL.PAS

“Had we answered her, we would not have experienced death.” (ARS, text vi2, 5:33; context: humanity failed to respond to an opportunity to become immortal)

As in EM, many of the *mání* clauses in the corpus, including (28) and (29) above, are glossed by speakers using the Spanish words *cuando*, *como*, and *porque*, or with an entirely separate

finite clause from the finite clause used to translate the main clause of the Máíhĩki sentence. This, together with the clearly non-conditional relationship of the clauses in examples such as (29), suggests that *mání* is probably better analyzed as a clause-linking element with some conditional functions than as a conditional particle.

NM also has an additional, unique use of this particle: *mání* may appear in NM following a noun or NP (typically a sentence-initial NP) without any conditional meaning, as in (31).

(31) *hànò óó mání, hã̀sòhánù, hã̀sò híòrè ísà mà̀pèrè, hã̀sò yékérò kwàkòáò.*

<i>hànò</i>	<i>óó</i>	<i>mání</i>	<i>hã̀sò</i>	<i>-hánù</i>	<i>hã̀sò</i>	<i>híò</i>	<i>-rè</i>	<i>ísà</i>	<i>mà̀pè</i>	<i>-rè</i>
now	plantain	COND?	manioc	-COMIT	manioc	peel	-SEQ	DEM	split.PLACT	-SEQ
<i>hã̀sò</i>	<i>yéké</i>	<i>-rò</i>		<i>kwàkò</i>	<i>-áò</i>					
manioc	other	-CL:CONCAVE	cook	-3SG.F.PAS						

“Then she cooked plaintains, and also manioc in a different pot, peeling it and splitting (the roots) in half.” (PLA, text by5, 4:55)

I would tentatively characterize the function of *mání* in utterances such as (31) as an NP focus marker, but the tokens of *mání* in this use in the corpus are still too few to make a definitive judgement on the issue.

8 Lexicon

While the lexical differences between NM and other varieties of Máíhĩki are generally minor, I was surprised to find a significant number of *-ni* class verbs in the lexicon which do not, to my knowledge, exist in the Napo dialects. These items, which are more fully documented in the lexical database, include *bíí-* “intoxicate, make sleepy” (of a fever or hallucinogen); *míí-* “remove object from water”; *nĩĩ-* “burn brightly, apply ritual adornments”; and *nĩĩ-* “harvest manioc from a new garden.” It is possible that these items also exist in EM/WM, but if not, they provide interesting evidence that NM may be somewhat more lexically conservative than the other dialects.