Lessons from an isolate: Chitimacha diachrony in areal perspective

Daniel W. Hieber
University of California, Santa Barbara
SSILA 2018, January 5, Salt Lake City
(handout and slides available at danielhieber.com/cv)

1. Introduction

- Chitimacha is a language isolate in the Southeast linguistic area
- Spoken in Louisiana until the death of its last native speaker in 1940
- Archival materials from documentation from 1802–1934:
  - 1802: word list (Duralde 1802; Jefferson 1808; Du Ponceau 1820)
  - 1881–1882: lexicon, a few texts (Gatschet 1881a; 1881b)
  - 1907–1921: dozen texts, sketch grammar (Swanton 1908; 1920)
  - 1930–1934: 120 texts, 3,500-word lexicon, 200-page grammar (Swadesh 1939a; Swadesh 1939b; Swadesh 1939c)

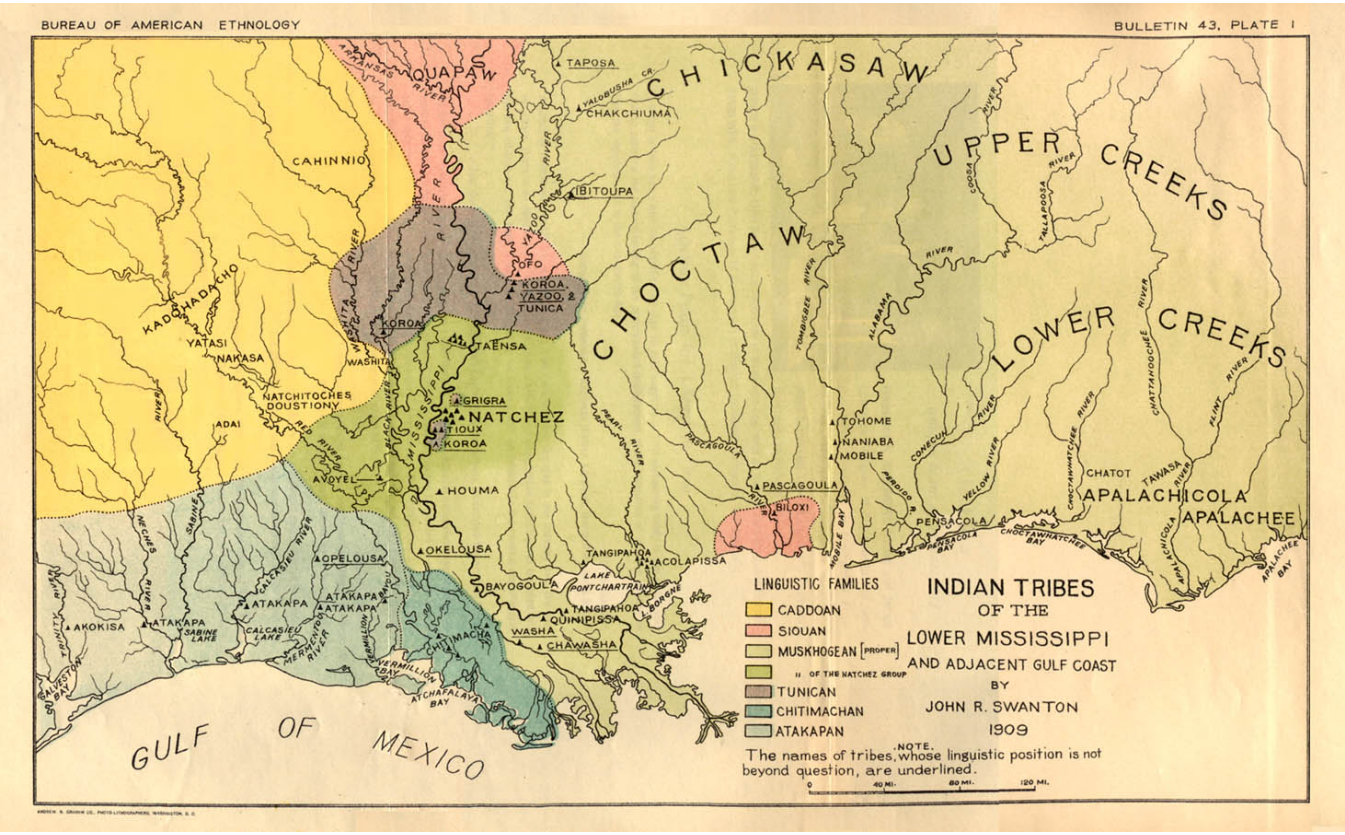

Figure 1. Languages of Louisiana and the surrounding region (Swanton 1911)

Issues in the study of isolates

- Data from other languages aren't applicable
- Internal reconstruction is limited in its utility
- Isolates are a problem to be solved via the comparative method

Today's talk: Isolates are a bountiful treasure trove of diachronic insights!

Three features of Chitimacha grammar:

I. positional auxiliary verbs ('sit', 'stand', 'lie')
II. switch-reference
III. agent-patient alignment

2. Positional Copular/Auxiliary Verbs

Chitimacha has three different copular verbs which are also used as auxiliaries. The choice of verb depends on the physical position of the subject:

- *hi-* 'be sitting (neutral)' (default form)
- *či-* 'be standing (vertical)'
- *pe-* 'be lying (horizontal)'

The auxiliary verb follows the main verb, which is marked with a participial suffix *-k*, *-ːk'*, *-tk*, or *-nt'k*, depending on the phonological environment.

Glossing Note: Verbs distinguish first (1) vs. non-first (NF) person. Glossing abbreviations are provided in the Appendix. The translations are from Swadesh, but the glosses are my own.

hi-, default, neutral use

(1) Waʔaš his kečmi-ːk' **hi**-ʔi-n.
other 3SG wait-PTCP **NEUT**-NF.SG-PROG
'He **was** waiting for the others.' (Swadesh 1939a:A35 4.16)

(2) Kaye **hi**-ʔuy-i.
alive **NEUT**-PAST.IPFV-NF.SG
'He **was** alive.' (Swadesh 1939a:A19 2.7)

hi-, sitting

(3) Hi tey-k'-š **hi**-ʔuy-ki-n.
DIST sit(SG)-PTCP-SUBORD **NEUT**-PAST.IPFV.1SG-PROG
'I was **sitting** down.' (Swadesh 1939a:A65 6.3)

(4) Tey = k'iš **hi**-ʔi.
sit(SG) = alone **NEUT**-NF.SG
'He just **sat** [there].' (Swadesh 1939a:A30 4.3)

či-, vertical

(5) We ʔakšuš ku: = ki **či**-ʔi.
DET cypress water = LOC **VERT**-NF.SG
'That cypress **stands** in the water.' (Swadesh 1939a:A9 2.4)

(6) ʔuybi = nk pi:hni-ːk'-š **či**-ʔuy-i we šuš = ki.
blood = NOM be.red-PTCP-SUBORD **VERT**-PAST.IPFV-NF.SG DET tree = LOC
'The blood was red **on** that tree.' (Swadesh 1939a:A9 2.1)

pe-, horizontal

(7) ʔiš ʔinč' ʔatin kiš nat'i-ːk'-š **pe**-ʔe sa šuš kuti = nki.
1SG father big dog lie-PTCP-SUBORD **HORIZ**-NF.SG DEM tree head = LOC
'My grandfather's dog is **lying** in the top of that tree.' (Swadesh 1939a:A55 1.10)

(8) Him čiski nowa = nki ʔapš šaht'i-ːk'-š **pe**-ʔe.
2SG pumpkin mellow = LOC CIRC crawl.in-PTCP-SUBORD **HORIZ**-NF.SG
'He **crawls** about amongst your watermelons.' (Swadesh 1939a:A67 4.4)

All three positional auxiliaries have the same plural forms:

- *naka* 1PL 'we are sitting/standing/lying'
- *naʔa* NF.PL 'y'all/they are sitting/standing/lying'

Plural Auxiliaries (with 'sit', 'stand', and 'lie')

(9) ʔiš ʔinč'i ʔiš ne we k'inkk'ank kin hi teni-ːk' **naku**-n.
1SG father 1SG and DET girls with DIST sit(PL)-PTCP **AUX(1PL)**-PROG
'My father and I and those girls were **sitting**.' (Swadesh 1939a:A65 1.3)

(10) We kimi sek'is tapšmi-ːk' **na**-ʔuy-na.
DET branch among stand-PTCP **AUX(PL)**-PAST.IPFV-NF.PL
'They were **standing** among those limbs.' (Swadesh 1939a:A38 1.19)

(11) Kamčin namč'emi-ːk'-š **naʔa** šuš tapšn keta = nki.
deer be.camped-PTCP-SUBORD **AUX(NF.PL)** tree upright side = LOC
'Deer are **lying** beside that upright tree.' (Swadesh 1939a:A66 2.1)

Chitimacha also shows evidence of an earlier auxiliary system:

Irrealis

(12) Kaya = nk ni k'ap-**čuy**-i.
rain = NOM DEF get-**IRR(SG)**-NF.SG
'The rain will get you.' (Swadesh 1939a:A9 2.3)

(13) ʔampi = nk kin k'ušmi-**ːt'i**-naka.
what = ABL with eat-**IRR(PL)**-1PL.A
'With what shall we eat it?' (Swadesh 1939a:A15 5.1)

Irrealis Reflexes

(14) Č'a: šahyn = iš hup **čuy**-iʔi.
sun going.in = TOP to **go(SG)**-NF.SG
'He went toward the sunset.' (Swadesh 1939a:A2 1.5)

(15) K'ast'a = nk hi **t'ut**-naʔa.
north = LOC AND **go(PL)**-NF.PL
'They went toward the north.' (Swadesh 1939a:A3 2.1)

Past Imperfective

(16) ʔiš = k šuš hup nuhč-k ša-**ʔuy**-ki-n.
1SG = NOM tree to run-SS sleep-**PAST.IPFV**-1SG.P-PROG
'I used to run off to the woods and sleep (there).' (Swadesh 1939a:A52 1.4)

(17) We = nki hi šak'it-k hi-**ʔuy**-i.
DEM = LOC DIST hang-PTCP AUX(NEUT)-**PAST.IPFV**-NF.SG
'[During the flood], he hung there.' (Swadesh 1939a:A10 4.2)

Past Imperfective Reflex

(18) Hatka = nkiš hi **ʔuy**-naka.
six = alone DIST **arrive(PL)**-1PL.A
'Only six arrived (there).' (also 'happened upon there') (Swadesh 1939a:A3 9.2)

Present Imperfective

(19) Ha nasta kap tohw-**ʔiš**-i.
DEM root INCH break-**PRES.IPFV**-NF.SG
'This root is breaking.' (Swadesh 1939a:A75 10.3)

(20) Kaya kap tey-**ʔiš**-i.
rain INCH stop-**PRES.IPFV**-NF.SG
'The rain is stopping.' (Swadesh 1939a:A84 8.4)

Present Imperfective Reflexes

ʔiš- COP

(21) Kaye **ʔiš**-iki-n.
alive **COP**-1SG-PROG
'I'm still alive.' (Swadesh 1939a:A10 5.2)

(22) ʔus=k ka:kumi-:k' **ʔiš**-naku-n ʔuš nitiya.
1PL=NOM know-PTCP COP-1PL-PROG 1PL master
'We knew that it was our master.' (Swadesh 1939a:A7 1.4)

=(i)š TOP

- Originally a cleft construction, i.e. 'it was TOPIC that…'

(23) Hus na:nča:kamank=**š** we-t=k hi hokm-iʔi.
3SG brothers=**TOP** DET-ANA=NOM DIST leave-NF.SG
'He left his brothers.' (Swadesh 1939a:A1 1.1)

(24) ʔašant'i ʔunk'u=**š** nus=up kun namki-:k' hi-ʔuy-i-n.
old one=**TOP** west=to some live-PTCP AUX(NEUT)-PAST.IPFV-NF.SG-PROG
'A certain old man lived in the west.' (Swadesh 1939a:A5 1.1)

(25) Ho kačm=**iš** =hiš načpi-:t'i-na-n hesik'en.
DEM doctor=**TOP** =ERG cure-IRR-NF.PL-PROG again
'Those doctors will cure you.' (Swadesh 1939a:A80 3.4)

ʔiška 'they say'

- Invariant discourse marker
- Original meaning was probably 'it is (the case)', developing into 'it is said (that)', and then finally (with the addition of the plural *-ka*) 'they say (that)', as in (26).

(26) Kutnehin č'ah **ʔiš**-ka.
God bird **COP**-PL
'They say it is God's bird.' (Swadesh 1939a:A10 2.3)

Table 1. Summary of diachronic origins of Chitimacha aspectual markers

Aspectual Marker		Diachronic Origin	
-čuw- / -t'i-	IRR	*čuw- / t'ut-*	'go'
-ʔuy-	PAST.IPFV	*ʔuy-*	'happen'
-ʔiš-	PRES.IPFV	*ʔiš-*	COP

Chitimacha auxiliaries were reanalyzed as aspectual markers, but underwent a process of renewal. The positional verbs 'sit', 'stand', and 'lie' underwent auxiliation (cf. Kuteva 2001) to replace the original auxiliary system.

Positional auxiliary verbs are an areal feature of the Southeast.

Table 2. Comparison of positional auxiliary verbs in several Southeastern languages

Language	**'sit'**	**'stand'**	**'lie'**
Chitimacha (isolate)	*hi-*	*či-*	*pe-*
Atakapa (isolate; Swanton 1929)	*kē*	*ta*	*tīxt*
Choctaw (Muskogean; Broadwell 2006:209–211)	*átta-*	*hikíya-*	*ittóla-*
Tunica (isolate; Haas 1946:349–351)	*-na*	*-hki* 'exist'	*-ra*

- The forms in each language are unrelated, but the pattern is the same.
- In the Muskogean languages, the positional auxiliaries also replaced an earlier set of auxiliaries (Booker 1980:187ff). Those earlier auxiliaries were incorporated into the verb, and reanalyzed as various voice markers.
- Chitimacha followed a parallel grammaticalization process.

3. Switch Reference

Chitimacha has a means of distinguishing same-subject vs. different-subject in clause chains (Hieber 2016). Same-subject (SS) is marked with *-k*, *-ːk'*, *-tk*, or *-nt'k*, depending on the phonological environment. Different-subject (DS) is marked with a full set of person suffixes.

(27) Piya ših hi **k'a:ct-k**, wetk we nuš **k'apt-k** ʔutp =k
cane belly DIST **cut-SS** then DET stone **take-SS** leather =LOC

ʔapš **wa:ct-k**, huyk'i ʔapš **ʔuti-:k'**, wetk we piya k'a:cn =ki
SOC **wrap-SS** good SOC **tie-SS** then DET cane cut.piece =LOC

hi **šahčt-k**, wetkš huyk'i kas **hukt-k**, wetkš hesik'en ʔutp
AND **put.in-SS** then good back **close-SS** then again leather

hi **k'apt-k**, we piya k'a:cn we ʔutp =ki ʔapš **wa:ct-k**,
DIST **take-SS** DET cane cut.piece DET leather =LOC SOC **wrap-SS**

huyk'i ʔapš **ʔuti-:k'**, wey-t huk'u kas **nučmi-:k'**,
good SOC **tie-SS** DEM-ANA COP(EMPH) back **work-SS**

kas **hamča-:š-naʔa**.
back **keep-PRES.IPFV-NF.PL(DS)**

'They cut a cane joint, take the stones and wrap them in hide, tie them well, put them into the section of cane, cork them well, again take hide and wrap the cane section in the hide, tie it well, and, having prepared it in that way, they save it.' (Swadesh 1939a:A71 3.3)

(28) Wenk hi **ču-:k'** =š ku: **k'apt-k** we ʔakšuš
now DIST **go(SG)-SS** =TOP water **take-SS** DET cypress

hi **t'eyktepi-ču-ø-:š**, kayi pa:hmpa him ni **k'apt-'iš-i**.
AND **splash-IRR-NF.SG(DS)-COND** thunder 2SG DEF **get-PRES.IPFV-NF.SG(DS)**

'Now if you go there, take water, and (if) you splash that cypress, thunder gets you.'
(Swadesh 1939a:A9 2.5)

The SS marker developed out of a participle (Hieber 2016):

(29) Kiš ʔatin nuhčpa-pa **k'iht-k** hi-ʔi ?
dog big make.run-NZR **want-PTCP** AUX(NEUT)-NF.SG
'Do you want your horse to run?' (Swadesh 1939a:A67 6.2)

(30) Ka:cpa =nk ʔam ʔoonak =hiš **k'et-k** ʔap t'u:t-š-naʔa.
stick =ABL everything =INSTR **beat(SG)-PTCP** VEN go(PL)-PRES.IPFV-NF.PL
'They came beating him with sticks and so forth.' (Swadesh 1939a:A9 1.2)

The participle in turn developed from a locative nominalizer *-(n)k* (Hieber 2016), which is still in use synchronically:

(31) Še:ni-**nk** hup hi ničwi-ʔi.
pond-**LOC** to DIST move(VERT).to.water-NF.SG
'He came to the edge of a pond.' (Swadesh 1939a:A2 1.2)

(32) Hi čuy-iʔi namu hi kuti-**nk**.
AND go(SG)-NF.SG town DIST end-**LOC**
'He went to the end of that village.' (lit. 'the village's end') (Swadesh 1939a:A86 2.11)

This locative can also be suffixed to a fully-conjugated verb (33), and is sometimes metaphorically extended to the temporal domain (34):

(33) ʔiš hi-ki-**nk** naʔa.
1SG COP(NEUT)-1SG-**LOC** COP(NF.PL)
'You [pl.] are at my place.' (Swadesh 1939a:A38 1.13)

(34) […] ǯa: kap šan-i-**nk** k'iš.
sun up go.out-NF.SG-**LOC** until
'[…] until the sun comes up.' (Swadesh 1939a:A64 1.5)

However, these uses appear to be fossilized leftovers from a time when the use of *-(n)k* on verbs was more common:

- The use of *-(n)k* with copulas, as in (33), has clearly lexicalized. *Hikink* 'my place' and *hiʔink* 'your/his/her place' are highly frequent, and often translated as 'my home' and 'your/his/her home'.
- Cases like (34) are very rare in the synchronic corpus, and occur mostly with the postposition 'until'.

It seems that, except in the fossilized constructions above, the verbal use of *-(n)k* continued its metaphorical extension into the temporal domain, and was reanalyzed as either of two distinct functions that were in complementary distribution[1]:

- When *-(n)k* co-occurred with the generic nominalizer *-i*, it was reanalyzed as a temporal subordinator:

[1] A similar complementary split in functions occurred for nominal uses of *-(n)k* as well: When *-(n)k* appeared with the nominalizer *-i*, the two affixes were reanalyzed as a single unit, with scope over the noun phrase rather than just the noun; this became the postposition *=(n)ki* 'at, on'. Otherwise, *-(n)k* remained a locative nominalizer, as shown in (31)–(32).

(35) Ney kap šanšw-i-**nk-i**, […]
earth up go.out-NF.SG-**TEMP-NZR**
'When the ground emerged, […]' (Swadesh 1939a:A10 8.1)

(36) K'ast'a ʔap ho: k'ih-čuy-i-**nk-i** weyǯi:k' yeht-'iš-iki.
north.wind VEN blow want-IRR(SG)-NF.SG-**TEMP-NZR** thus cry-PRES.IPFV-1SG.A
'That is why I cry out when the north (wind) is going to blow.'
(Swadesh 1939a:A10 10.11)

- Otherwise, *-(n)k* was reanalyzed as a participle:

(37) Wetkš ni k'ast-**k**, […] weytenk'enkš t'ut-naʔa hesik'en.
then DEF plant-**PTCP** after.that go(PL)-NF.PL again
'Then they planted, […] and after that went on again.' (lit. 'planting, they went')
(Swadesh 1939a:A3 2.3)

(38) Kap ten-**tk** ni k'as-mi-naʔa.
STAT stop(PL)-**PTCP** DEF plant-PLACT-NF.PL
'They stopped and planted (again).' (lit. 'stopping, they planted') (Swadesh 1939a:A3 2.4)

Additional evidence for the development of the locative > participle is found in their phonological conditioning environments, presented in Table 3.

Table 3. Phonological conditioning environments for the locative and participial suffixes

Environment	Locative	Participle
N_	*-tk*	*-t'k*
V_	*-nk*	*-ːk'*
/w, y/_	*-k*	*-k'*
C_	*-k*	*-k*

- The glottalized versions of the participle likely arose from a reanalysis of the morpheme boundary separating the person markers and the locative:
    - Synchronically, non-first person forms alternate between glottalized and non-glottalized forms: *-i* vs. *-iʔi* (sg.), and *-na* vs. *-naʔa* (pl.). The glottalized forms typically appear only in careful speech.
    - The copula also has the glottal stop (*hiʔi* (sg.) and *naʔa* (pl.)).
    - Assuming that the glottalized version represents the original form of these morphemes, then the glottal stop may have been reanalyzed as glottalization of the

following consonant – the /k/ of the participle. Swadesh (1939c:13) in fact notes that the glottalization with *-ːkʼ* actually precedes the oral closure.

- This analysis explains why *-ːkʼ* lengthens the preceding vowel: it is the result of compensatory lengthening that occurred when the glottal stop in the non-first person markers was reanalyzed as glottalization of the following consonant. This lengthening was then extended to the first person markers as well.
- This analysis also explains why the participle does not have an /n/ after vowels like its locative counterpart: the suffix would have originally been preceded by a glottal closure rather than a vowel.

- In sum, there is a plausible pathway for the phonological development of the forms of the participle out of the forms of the locative suffix.

Recap: Switch Reference < Participle < Locative

Switch reference is also a prevalent feature of the Southeast, e.g. in Choctaw:

(39) Kaah sa-nna-**haatokoosh**, iskali' ittahobli-li-tok.
car 1sI-want-**because:ss** money save-1sI-PAST
'Because I wanted a car, I saved money.' (Broadwell 2006:263)

(40) Kaah banna-**haatoko**, iskali' ittahobli-li-tok.
car want-**because:ds** money save-1sI-PAST
'Because he wanted a car, I saved money.' (Broadwell 2006:263)

- The forms in Chitimacha are different from those in Muskogean, but the function is the same.
- Munro (1983) also notes a connection between embedded participial forms and same-subject markers in Muskogean (cf. Broadwell 2006:217 for Choctaw).
- Chitimacha followed a parallel grammaticalization process.

4. Agent-Patient Alignment

Chitimacha shows agent-patient alignment in verbal person marking in the 1st person (Hieber, in revision).

- Non-first person markers in Chitimacha exhibit nominative-accusative alignment, where the nominative is marked, and the accusative unmarked.
- It is common for languages to have agent-patient alignment in just the 1st, or 1st and 2nd, persons (Siewierska 2013).
- Languages and even individual lexical items in a language vary as to how productive the agent-patient alternation is. Chitimacha appears to be fairly productive in this regard.

- Languages vary as to the semantic basis of the agent-patient alternation. In Chitimacha, the alternation is conditioned primarily on control rather than other factors like active/stative (cf. Hieber, in revision for details).

Nominative-Accusative Alignment in the Non-First Person

(41) T'ut-**naʔa** hesik'en. (intransitive)
go(PL)-**NF.PL** again
'They went on(wards) again.' (Swadesh 1939a:A3 2.3)

(42) Waštik k'et-**naʔa**. (transitive, accusative unmarked)
cow kill-**NF.PL**
'They kill a cow.' (Swadesh 1939a:A20 1.1)

The primary difference between the agent and patient suffixes in Chitimacha is their position, not their form.

PREVERB	STEM	**PATIENT**	ASPECT	**AGENT** / SUBJECT

Figure 2. Chitimacha verb template

The agent and patient suffixes do however differ in their morphophonological behavior, so it is always possible to distinguish one from the other (cf. Hieber, in revision).

The agent-patient alternation occurs with intransitives, transitives, ditransitives, causatives, reflexives, nonfinite verbs, deverbal nouns, dynamic verbs, and stative verbs (Hieber, in revision). For brevity, only a few examples from intransitives and transitives are shown below.

Intransitive with 1st Person Patient vs. Agent

(43) ʔiš = k ne:m-**ki**
1SG = NOM be.afraid-**1SG.P**
'I am afraid' (Swadesh 1939a:A30 4.5)

(44) ʔiš šuš sek'is ʔapš ču:-m-**iki**
1SG wood in CIRC go(SG)-PLACT-**1SG.A**
'I have gone about in the wood sufficiently.' (Swadesh 1939a:A28 1.5)

Transitive with 1st Person Patient vs. Agent (ex. 1)

(45) ni-kint-**ki**-ču:-š
water-drop-**1SG.P**-IRR(SG)-COND
'If you drop me into the water' (Swadesh 1939a:A1 3.3)

(46) ni-kin-ču-**ki**-nk’
water-drop-IRR(SG)-**1SG.A**-DEB
‘I must drop you into the water’ (Swadesh 1939a:A1 3.2)

Transitive with 1st Person Patient vs. Agent (ex. 2)

(47) k’et-**ki**-ʔi we ko:š = iš
beat-**1SG.P**-NF.SG DET switch = INSTR
‘she beat me with the switch’ (Swadesh 1939a:A60 1.6)

(48) we ka:ci ʔatin kap k’et-**iki**
DET owl large STAT kill(SG)-**1SG.A**
‘I killed the horned owl’ (Swadesh 1939a:A80 5.6)

Transitive with 1st Person Patient as Subject

(49) Huykš ʔam ʔo:nak ni šik-**ki**.
yet thing all DEF forget-**1SG.P**
‘I have not forgotten everything yet.’ (Swadesh 1939a:A5 10.3)

In many languages, the agent and patient forms are phonologically distinct. **In Chitimacha, the forms are phonologically similar, but different in their distribution and morphophonological behavior. Why?**

- We have already seen that Chitimacha aspectual morphemes were once auxiliary verbs.
- When the MAIN VERB + AUXILIARY construction was reanalyzed as a single verb, some of the singular person markers on the main verb were caught in the middle.

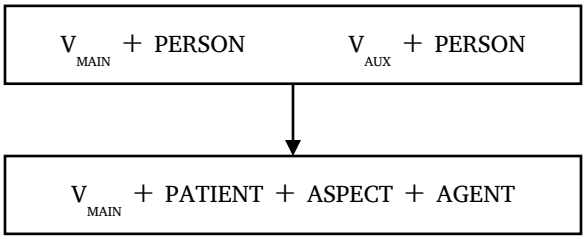

Figure 3. Univerbation of main verb plus auxiliary

- The first person marker *-ki* was reanalyzed as a patient marker, while the non-first person marker *-i* deleted after stem-final consonants. Stem-final vowels, however, always change to /i/ before aspectual markers, providing evidence that the non-first person *-i* was at one point present in this position as well:

Stem-Final /e/ → /i/ Before Aspectual Markers

(50) ʔiš kiča hokšt**i**-ču-ki. < hokste- ‘feed’
1sg wife feed-IRR(SG)-1SG.A
‘I shall feed my wife.’ (Swadesh 1939a:A15 6.2)

- The deletion of the non-first person *-i* in these contexts explains why the agent-patient system is at work only in the first person.
- The process of univerbation explains the similarity between the agent and patient forms: Originally they were the same form, just in different places (one on a main verb, and one on an auxiliary).

What caused the reanalysis from nominative-accusative to agent-patient?

Malchukov (2008) lays out a diachronic pathway whereby *transimpersonals* (transitive verbs with an impersonal subject; Sapir (1917:85); Haas (1941)) can be reanalyzed as patient verbs.

Mithun (2008:329) similarly posits that “a reanalysis of transitives with zero subjects as intransitives could have occurred” in Chitimacha.

> In a language in which (i) intransitive and transitive verbs are not distinguished formally, (ii) topical 3rd persons are usually not mentioned, (iii) few nouns are marked for case, and (iv) word order is predicate final, it would be a simple matter to reanalyse a nominative-accusative system as an agentive one or vice versa. […] Transitive clauses with omitted 3rd person subjects could be reanalysed as intransitive, and objects could be reanalysed as grammatical patients. (Mithun 2008:308–309)

Chitimacha meets all these criteria, and thus it is no surprise that Chitimacha shows evidence of the transimpersonal > patient pathway as well. A limited set of verb forms (intransitive patientive verbs which contain an aspectual marker) still retain a pleonastic / expletive non-first singular suffix *-i*, which I gloss as ‘ø’ to indicate that it contributes no meaning to the construction.

(51) Wey ne ʔapš kimikiš wekkaːši.
wey ne ʔapš kima-iki-š wek-ki-ʔiš-**i**.
DEM just REFL think-1SG.A-SUBORD laugh-1SG.P-PRES.IPFV-**ø**
‘I laugh when I think about it.’ (Swadesh 1939a:A49 3.9)

(52) ʔaštkanki k’an ni šik-ki-čuy-**i**.
sometimes NEG DEF forget-1SG.P-IRR(SG)-**ø**
‘I shall never forget.’ (Swadesh 1939a:A60 2.2)

Cases like these suggest an earlier, transimpersonal stage for Chitimacha verbs, where forms like (52) would have been interpreted as having an expletive subject, meaning something like ‘it forgets me’.

However, morphophonological changes deleted this suffix in many contexts.

In (53) the /i/ is deleted, but its effect on the irrealis morpheme remains (*-čuw* > *-čuy*).

(53) Nu:p-ki-**<u>čuy</u>** hi kimi-ːk'-š huk'u hi šankint-ki.
die(SG)-1SG.P-IRR**<u>(NF.SG)</u>** DIST think-PTCP-SUBORD COP(EMPH) DIST put_out-1SG.P
'You put me out thinking I would die.' (Swadesh 1939a:A10 5.5)

In (54) the *-i* is deleted.

(54) Pa:kine-ki-**<u>ču:</u>**-š, […]
be.tired-1SG.P-IRR**<u>(NF.SG)</u>**-COND
'If I get tired, […]' (Swadesh 1939a:A1 3.2)

Without an aspectual marker, it's unclear whether the *-i* is present. Example (55) could be glossed as *-ki* 1SG + *-i* NF.SG, where the /i/ of the non-first singular replaces the /i/ of the first singular, or simply as *-ki* 1SG.P.

(55) Wetkš we nitiya=nk=š ʔiš hi šankint-**<u>ki</u>**.
then DET master=NOM=TOP 1SG DIST put_out-**<u>1SG.P(-NF.SG.A???)</u>**
'Then the (boat) master put me off.' (Swadesh 1939a:A10 10.3)

The vanishingly rare presence of the non-first singular *-i* suffix in patientive constructions would have hastened the reanalysis from transimpersonal > patientive.

Agent-patient alignment is a strong areal feature of the Southeast. It is present in 13 out of the 14 languages listed as belonging to the linguistic area by Campbell (1997:341–344).

- The agent-patient morphology in Chitimacha follows a different pattern, and has different forms than, that of Muskogean and the other isolates in the area.

5. Mechanisms of Change

Chitimacha shares these 3 features (and others) with languages of the Southeast.

- In each case, Chitimacha recruited native lexical / grammatical material rather than borrow material from other languages directly.
- In each case, there are significant differences between the structure of the Chitimacha features and that of other languages, even though their overall function is the same.

How did this happen? Contact is the obvious answer, but what's the precise mechanism?

5.1. The Southeast as a Contact Area

- The Southeast is a well-known linguistic and cultural area (Jackson & Fogelson 2004).

- Both Creek and Mobilian Jargon were used as *linguae francae* and trade languages (Dreschel 1997; Martin 2004).
- There were robust trade networks in the region (Hudson 1976:313–316; Brown 2004).
- Exogamy was common (Speck 1907).
- Movement of peoples was common, with speakers of different languages known to live amongst one another (Swanton 1911:360–364).
- Spanish loanwords are known to have spread via the above pathways (Martin 1994).
- In sum, the Southeast was ripe for **multilingualism**.

5.2. Discourse, Multilingualism, & Grammaticalization

- In cases of multilingualism, stylistic discourse preferences are easily borrowed (Mithun 2008; Mithun 2012).
- It is not the grammatical structures themselves that are borrowed, but rather a preference for packaging information in discourse in ways that parallel the grammatical structures in the source language.
- As these information-structural preferences become increasingly frequent, they become routinized and eventually grammaticalized as the dedicated construction for that function.
- **Positional Auxiliaries:** Bilingual speakers used the lexical verbs 'sit', 'stand', and 'lie' in Chitimacha as rough equivalents of positional auxiliaries in other languages, until they were reanalyzed as auxiliary verbs themselves.
- **Switch Reference:** Because the subject of a participle is the noun it modifies, chains of participial clauses share the same subject, making them the obvious choice for continuing topics in a manner analogous to switch reference in Muskogean. This pattern gradually became more frequent in Chitimacha, until it was possible to have long stretches of text with only a single main verb.
- **Agent-Patient Alignment:** The reanalysis of transimpersonals in Chitimacha would have been greatly bolstered by bilinguals who already spoke a language with semantic alignment.

6. Conclusion

- Chitimacha is sometimes viewed as peripheral to the Southeast linguistic area (e.g. Martin 1994). The structural features and shared grammaticalization processes examine here situate Chitimacha firmly within the Southeast linguistic area.
- The forms and internal histories of these grammatical structures suggest contact-induced grammaticalization rather than genetic inheritance.

- Despite being an isolate, data from other languages are useful in understanding diachronic developments in the language. Contact phenomena illuminate language-internal histories as much as areal ones.
- Internal reconstruction can be quite robust, especially when reflexes of past forms remain in the language (Givón 2000).
- Stylistic preferences in discourse can completely restructure grammar.
- Chitimacha's isolate status is precisely what gives us this window into the history of contact in the Southeast. While internal evidence suggests what seems *prima facie* to be a fairly comprehensive story regarding how these structural features arose, when we step back and examine these histories in light of their larger historical and social context, we gain a much deeper understanding of the area.

7. Acknowledgments

Many thanks to Kim Walden and the Chitimacha Tribe of Louisiana for allowing me to work with their language data. Thanks also to Marianne Mithun for useful discussions about this topic. An earlier version of this talk was presented at the American Indian Seminar at the University of California, Los Angeles, and thanks are due to Pamela Munro, Margit Bowler, Jon Gluckman, and the other participants of the seminar for their feedback. This work was funded in part by a National Science Foundation (NSF) Graduate Research Fellowship (GRFP) Grant #1144085. All errors are of course wholly my own.

8. References

Booker, Karen M. 1989. *Comparative Muskogean: Aspects of Proto-Muskogean verb morphology*. Ph.D. dissertation. Department of Linguistics, University of Kansas.

Broadwell, George Aaron. 2006. *Choctaw reference grammar*. (Studies in the Anthropology of North American Indians). University of Nebraska Press.

Brown, James A. 2004. Exchange and interaction until 1500. In Raymond D. Fogelson (ed.), *Handbook of North American Indians*, Vol. 14: Southeast, 677–685. Smithsonian Institution.

Campbell, Lyle. 1997. *American Indian languages: The historical linguistics of Native America*. (Oxford Studies in Anthropological Linguistics 4). OUP.

Dreschel, Emanuel J. 1997. *Mobilian Jargon: Linguistic and sociohistorical aspects of a Native American pidgin*. (Oxford Studies in Language Contact). OUP.

Duralde, Martin. 1802. *Vocabulaire de la langue des Chetimachas et Croyance des Chetimachas*. (American Philosophical Society Historical & Literary Committee, American Indian Vocabulary Collection Mss.497.V85). American Philosophical Society Library.

Gatschet, Albert S. 1881a. *Texts of the Shetimasha language, spoken in Charenton, St. Mary's Parish, La.* (MS 288a). National Anthropological Archives.

Gatschet, Albert S. 1881b. *Shetimasha words and sentences collected December 1881 and January 1882 (to accompany texts of the same language)*. (MS 349a–b). National Anthropological Archives.

Givón, Talmy. 2000. Internal reconstruction: As method, as theory. In Spike Gildea (ed.), *Reconstructing grammar: Comparative linguistics and grammaticalization*, 107–160. (Typological Studies in Language 43). John Benjamins.

Haas, Mary R. 1941. Tunica. In Franz Boas (ed.), *Handbook of American Indian languages, Part 4*, 159–204. (Bureau of American Ethnology Bulletin 40). Augustin.

Haas, Mary R. 1946. A grammatical sketch of Tunica. In Charles Osgood (ed.), *Linguistic structures of Native America*, 337–366. (Publications in Anthropology 6). Viking Fund.

Hieber, Daniel W. in revision. Semantic alignment in Chitimacha. Manuscript.

Hieber, Daniel W. 2016. The extension of structure to discourse: Chitimacha participles in discourse and diachrony. Talk presented at the Winter meeting of the Society for the Study of the Indigenous Languages of the Americas, January 7, Washington, D.C.

Hudson, Charles. 1976. *The Southeastern Indians*. University of Tennessee Press.

Jackson, Jason Baird & Raymond D. Fogelson. 2004. Introduction. In Raymond D. Fogelson (ed.), *Handbook of North American Indians, Vol. 14: Southeast*, 1–13. Smithsonian Institution.

Jefferson, Thomas. 1808. Comparative vocabularies of several Indian languages, 1802–1808. (American Council of Learned Societies Committee on Native American languages Mss.497.J35). American Philosophical Society Library.

Kuteva, Tania. 2004. *Auxiliation: An enquiry into the nature of grammaticalization*. OUP.

Malchukov, Andrej. 2008. Split intransitives, experiencer objects, and "transimpersonal" constructions: (Re-)establishing the connection. In Mark Donohue & Søren Wichmann (eds.), *The typology of semantic alignment*, 76–100. OUP.

Martin, Jack B. 1994. Modeling language contact in the prehistory of the Southeastern United States. In Patricia B. Kwachka (ed.), *Perspectives on the Southeast: Linguistics, archaeology, and ethnohistory*, 14–24. University of Georgia Press.

Martin, Jack B. 2004. Languages. In Raymond D. Fogelson (ed.), *Handbook of North American Indians, Vol. 14: Southeast*, 68–86. Smithsonian Institution.

Mithun, Marianne. 2008. The emergence of agentive systems in core argument marking. In Mark Donohue & Søren Wichmann (eds.), *The typology of semantic alignment*, 297–333. OUP.

Mithun, Marianne. 2012. Core argument patterns and deep genetic relations: Hierarchical systems in Northern California. In Pirkko Suihkonen, Bernard Comrie & Valery Solovyev (eds.), *Argument structure and grammatical relations: A crosslinguistic typology*, 257–294. (Studies in Language Companion Series 126). John Benjamins.

Munro, Pamela. 1983. When "same" is not "not different." In John Haiman & Pamela Munro (eds.), *Switch reference and universal grammar*, 223–244. (Typological Studies in Language 2). John Benjamins.

Du Ponceau, Peter S. 1820. *Indian vocabulary collection*. (American Council of Learned Societies Committee on Native American languages Mss.497.ln2). American Philosophical Society Library.

Sapir, Edward. 1917. Review: Review: Het Passieve Karakter van het Verbum Transitivum of van het Verbum Actionis in Talen van Noord-Amerika (The passive character of the transitive verb or of the active verb in

languages of North America), by C. C. Uhlenbeck. *International Journal of American Linguistics* 1(1): 82–86.

Siewierska, Anna. 2013. Alignment of verbal person marking. In Matthew S. Dryer & Martin Haspelmath (eds.), *World atlas of language structures online*. Max Planck Institute for Evolutionary Anthropology.

Speck, Frank G. 1907. Some outlines of Aboriginal culture in the Southeastern states. *American Anthropologist* 9(2): 287–295.

Swadesh, Morris. 1939a. Chitimacha texts. In Morris Swadesh, *Chitimacha grammar, texts and vocabulary*. (American Council of Learned Societies Committee on Native American Languages Mss.497.3.B63c G6.5). American Philosophical Society Library.

Swadesh, Morris. 1939a. Chitimacha-English dictionary. In Morris Swadesh, *Chitimacha grammar, texts and vocabulary*. (American Council of Learned Societies Committee on Native American Languages Mss.497.3.B63c G6.5). American Philosophical Society Library.

Swadesh, Morris. 1939a. Chitimacha grammar. In Morris Swadesh, *Chitimacha grammar, texts and vocabulary*. (American Council of Learned Societies Committee on Native American Languages Mss.497.3.B63c G6.5). American Philosophical Society Library.

Swanton, John R. 1908. *Chitimacha stories 1908–1931*. (Numbered Manuscripts 1850s–1980s (Some Earlier) MS 4199). National Anthropological Archives.

Swanton, John R. 1911. *Indian tribes of the Lower Mississippi Valley and adjacent coast of the Gulf of Mexico*. (Bureau of American Ethnology Bulletin 43). Smithsonian Institution.

Swanton, John R. 1920. A sketch of the Chitimacha language. (Numbere Manuscripts 1850s–1980s (Some Earlier) MS 4122). National Anthropological Archives.

Swanton, John R. 1929. A sketch of the Atakapa language. International Journal of American Linguistics 5(2/4): 121–149.

9. Appendix: Glossing Abbreviations

Ø	pleonastic morpheme	COP	copula	LOC	locative
1	first person	DEF	definite	NEG	negative
2	second person	DEM	demonstrative	NEUT	neutral position
3	third person	DET	determiner	NF	non-first person
A	agent	DIST	distal	NOM	nominative
ABL	ablative	DS	different-subject	NZR	nominalizer
ANA	anaphoric	EMPH	emphatic	P	patient
AND	andative	ERG	ergative	PAST	past tense
AUX	auxiliary	HORIZ	horizontal position	PL	plural
BEN	benefactive/malefactive	INCH	inchoative	PLACT	pluractional
CAUS	causative	INSTR	instrument	PRES	present tense
CIRC	circumlative (‘about’)	IPFV	imperfective	PROG	progressive
COND	conditional	IRR	irrealis	PTCP	participle

SOC	sociative (‘together’)
SG	singular
SS	same-subject
STAT	stative / change-of-state
SUBORD	subordinator
TOP	topic
VEN	venitive
VERT	vertical position