

Infixation on the CV Tier: Evidence from Alabama Agent Agreement

Supplementary Handout, May 1 2026

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1 Relevant Rules

(1) Vocabulary Insertion Rules

1. $\text{AGR}_{[2, \text{SG}, \text{agent}]} \longleftrightarrow ch$
2. $\text{AGR}_{[2, \text{PL}, \text{agent}]} \longleftrightarrow hach$
3. $\text{AGR}_{[1, \text{PL}, \text{agent}]} \longleftrightarrow hili / \text{two-mora final foot}$
4. $\text{AGR}_{[1, \text{PL}, \text{agent}]} \longleftrightarrow l / \text{elsewhere}$
5. $\text{AGR}_{[1, \text{SG}, \text{agent}]} \longleftrightarrow a / _ \text{NEG}$
6. $\text{AGR}_{[1, \text{SG}, \text{agent}]} \longleftrightarrow \emptyset / \text{elsewhere}$
7. $\text{NEG} \longleftrightarrow k$
8. $\text{AUX} \longleftrightarrow o$

(2) Pivot Rules

- If right-most V is filled, then:
 - Insert the infix between the first $V_{i, [+FILLED]} C_{i+1, [+FILLED]}$ sequence from the right. Empty CV slots are ignored.
 - * Agent agreement marker is inserted to the left of $C_{i+1, [+FILLED]}$.
 - * Negation marker is inserted to the right of $V_{i, [+FILLED]}$.
 - If there is no instance of $V_{i, [+FILLED]} C_{i+1, [+FILLED]}$, place the agreement marker to the left of the left-most filled slot (i.e. prefixing iCV verbs).
- Else (i.e. right-most V is unfilled):
 - Insert the <C V> material at the end of the word (i.e. as a suffix).

(3) **Phonological Rules**

- Ungoverned V slots undergo *i*-insertion.
- *i*-insertion applies to monosyllabic roots.
- *i*-insertion applies to consonant-final stems.
- Complex segments (i.e. *ch*) must be in a licensed C.
- $V \rightarrow \emptyset / _ V$

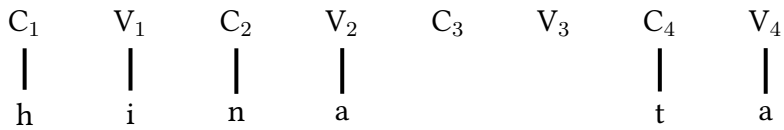
2 Positive Agreement

TAM morphology is ignored, for space reasons.

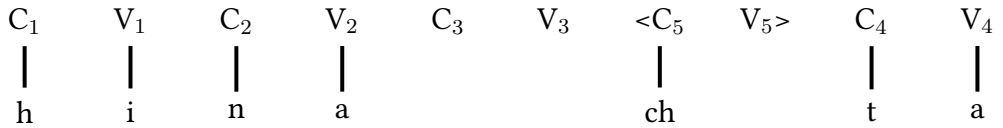
2.1 CVVCV

hinaata → *hinaa<s>ta*

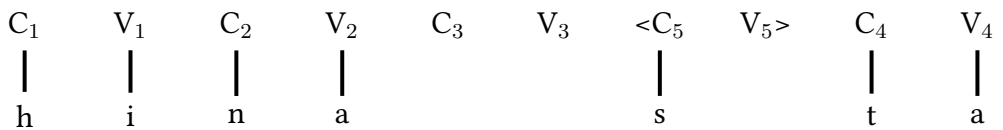
(4) a. **Underlying form *hinaata***



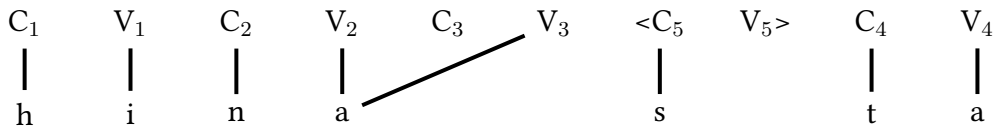
b. **Infixation of 2SG, left of C₄**



c. **Spirantization: *ch* is ungoverned and unlicensed**



d. **Spreading: *a* spreads to V₃**



2.2 CVCCV

hokcho → *ho<chi>kcho*

(5) a. Underlying form *hokcho*

C ₁	V ₁	C ₂	V ₂	C ₃	V ₃
h	o	k		ch	o

b. Infixation of 2SG, left of C₂

C ₁	V ₁	<C ₄	V ₄ >	C ₂	V ₂	C ₃	V ₃
h	o	ch		k		ch	o

c. i-insertion: V₄ is ungoverned

C ₁	V ₁	<C ₄	V ₄ >	C ₂	V ₂	C ₃	V ₃
h	o	ch	i	k		ch	o

2.3 CVCV

hompani → *hompan-chi*

- In CVCV verbs, the final V in the timing tier is not associated with its melodic material. It links only when the agent agreement marker is not present.

(6) a. Underlying form *hompan*

C ₁	V ₁	C ₂	V ₂	C ₃	V ₃	C ₄	V ₄
							⋮
h	o	m	a	p	a	n	i

b. Suffixation of 2SG: Unfilled final V

C ₁	V ₁	C ₂	V ₂	C ₃	V ₃	C ₄	V ₄	C ₅	V ₅
							⋮		
h	o	m	a	p	a	n	i	ch	

c. i-insertion: no consonant final stems

C ₁	V ₁	C ₂	V ₂	C ₃	V ₃	C ₄	V ₄	C ₅	V ₅
							⋮		
h	o	m	a	p	a	n	i	ch	i

2.4 iCV Verbs

ipa → *il-pa*

(7) a. Underlying form *pa*

C ₁	V ₁	C ₂	V ₂
		p	a

b. Infixation of 2SG, left of C₂ (per pivot rule)

C ₁	V ₁	<C ₃	V ₃ >	C ₂	V ₂
		l		p	a

c. i-insertion: no monosyllabic stems

C ₁	V ₁	<C ₃	V ₃ >	C ₂	V ₂
	i	l		p	a

2.5 -ka Verbs

The *-ka* morpheme includes a filled V₁ slot, indicated in (8) with ∅. It is deleted at some stage of the derivation.

(8) Underlying form *-ka*

C ₁	V ₁	C ₂	V ₂
	∅	k	a

loska → *los<is>ka*

(9) a. Underlying form *loska*

C ₁	V ₁	C ₂	V ₂	C ₃	V ₃	C ₄	V ₄
l	o	s			∅	k	a

b. Infixation of 2SG, left of C₄

C ₁	V ₁	C ₂	V ₂	C ₃	V ₃	<C ₅	V ₅ >	C ₄	V ₄
l	o	s			∅	ch		k	a

- c. **Empty CV segment carrying \emptyset deletes at some stage of the derivation**

C_1	V_1	C_2	V_2	$\langle C_5$	$V_5 \rangle$	C_4	V_4
l	o	s		ch		k	a

- d. **i-insertion: V_2 is ungoverned**

C_1	V_1	C_2	V_2	$\langle C_5$	$V_5 \rangle$	C_4	V_4
l	o	s	i	ch		k	a

- e. **Spirantization: C_3 is neither governed nor licensed**

C_1	V_1	C_2	V_2	$\langle C_5$	$V_5 \rangle$	C_4	V_4
l	o	s	i	s		k	a

2.6 -li Verbs

bitli → *bit-chi*

- (10) a. **Underlying form *bit***

C_1	V_1	C_2	V_2
b	i	t	

- b. **Suffixation of 2sg: Unfilled final V**

C_1	V_1	C_2	V_2	C_3	V_3
b	i	t		ch	

- c. **i-insertion: no consonant final stems**

C_1	V_1	C_2	V_2	C_3	V_3
b	i	t		ch	i

2.7 Remaining Verbal Stems

- Periphrastic: *ootoba-t-il-ka* “we dream”
- Causative: *aaba-chi-l-ka* “we teach”

★ This derives the positive agreement paradigms!

3 Derivations in Strict CV: Negative Agreement

- The negation paradigm always suffixed with the auxiliary *o*, which triggers vowel deletion of the previous vowel:

– e.g. *choopa* → ... → *cho<chi-kii>pa* → *cho<chi-kii>pa + o* → *cho<chi-kii>po* → *cho<chi-kii>po+ti*

- The derivations here do not include the negative auxiliary *o* and TAM morphology, for space reasons.

3.1 CVCCV

hokcho → *ho<chi-ki>kcho*

- (11) a. **Underlying form *hokcho***

C ₁	V ₁	C ₂	V ₂	C ₃	V ₃
h	o	k		ch	o

- b. **Infixation of NEG, right of V₁**

C ₁	V ₁	<C ₄	V ₄ >	C ₂	V ₂	C ₃	V ₃
h	o	k		k		ch	o

- c. **Infixation of 2SG, left of C₄**

C ₁	V ₁	<C ₅	V ₅ >	<C ₄	V ₄ >	C ₂	V ₂	C ₃	V ₃
h	o	ch		k		k		ch	o

- d. **i-insertion: all ungoverned V slots filled from the right**

C ₁	V ₁	<C ₄	V ₄	C ₅	V ₅ >	C ₂	V ₂	C ₃	V ₃
h	o	ch	i	k	i	k		ch	o

3.2 CVVCV

choopa → *cho*<*chi-kii*>*pa*

(12) a. **Underlying form *choopa***

C ₁	V ₁	C ₂	V ₂	C ₃	V ₃
ch	o			p	a

b. **Infixation of NEG, right of V₁**

C ₁	V ₁	<C ₄	V ₄ >	C ₂	V ₂	C ₃	V ₃
ch	o	k				p	a

c. **Infixation of 2SG, left of C₄**

C ₁	V ₁	<C ₅	V ₅ >	<C ₄	V ₄ >	C ₂	V ₂	C ₃	V ₃
ch	o	ch		k				p	a

d. ***i*-insertion: V₅ and V₄ are ungoverned**

C ₁	V ₁	<C ₅	V ₅ >	<C ₄	V ₄ >	C ₂	V ₂	C ₃	V ₃
ch	o	ch	i	k	i			p	a

↗

3.3 CVCV

aʔi → *aʔ*<*chi-k*>

★ How 2SG is infixed is unclear, given that V₃ is unfilled at this point of the derivation.

(13) a. **Underlying form *aʔi***

C ₁	V ₁	C ₂	V ₂
			⋮
	a	ʔ	i

b. **Suffixation of NEG: Unfilled final V slot**

C ₁	V ₁	C ₂	V ₂	C ₃	V ₃
			⋮		
	a	ʔ	i	k	

c. **Infixation of 2SG: Unfilled final V slot**

C ₁	V ₁	C ₂	V ₂	C ₃	V ₃	C ₄	V ₄
			⋮				
	a	ʔ	i	ch		k	

d. ***i*-insertion: V_3 is ungoverned**

C_1	V_1	C_2	V_2	C_3	V_3	C_4	V_4
			⋮				
	a	ɬ	i	ch	i	k	

3.4 iCV*ila* → *chi-k-lo*(14) a. **Underlying form *la***

C_1	V_1	C_2	V_2
		l	a

b. **Infixation of NEG, left of C_2 (per pivot rule)**

C_1	V_1	$\langle C_3 \rangle$	$V_3 \rangle$	C_2	V_2
		k		l	a

c. **Infixation of 2SG, left of C_3 (per pivot rule)**

C_1	V_1	$\langle C_4 \rangle$	$V_4 \rangle$	$\langle C_3 \rangle$	$V_3 \rangle$	C_2	V_2
		ch		k		l	a

d. ***i*-insertion: V_3 into ungoverned slots**

C_1	V_1	$\langle C_4 \rangle$	$V_4 \rangle$	$\langle C_3 \rangle$	$V_3 \rangle$	C_2	V_2
		ch	i	k		l	a

3.5 -ka verbs

loska → *loschikko*

(15) a. **Underlying form *loska***

C ₁	V ₁	C ₂	V ₂	C ₃	V ₃	C ₄	V ₄
l	o	s			∅	k	a

b. **Infixation of NEG, right of V₃**

C ₁	V ₁	C ₂	V ₂	C ₃	V ₃	<C ₅	V ₅ >	C ₄	V ₄
l	o	s			∅	k		k	a

c. **Infixation of 2SG, left of C₅**

C ₁	V ₁	C ₂	V ₂	C ₃	V ₃	<C ₆	V ₆ >	<C ₅	V ₅ >	C ₄	V ₄
l	o	s			∅	ch		k		k	a

d. ***i*-insertion: V₆ is ungoverned**

C ₁	V ₁	C ₂	V ₂	C ₃	V ₃	<C ₆	V ₆ >	<C ₅	V ₅ >	C ₄	V ₄
l	o	s			∅	ch	i	k		k	a

e. **∅ material is deleted at some stage of the derivation**

C ₁	V ₁	C ₂	V ₂	<C ₆	V ₆ >	<C ₅	V ₅ >	C ₄	V ₄
l	o	s		ch	i	k		k	a

- Comparing the positive and negative agreement derivations shows that the *i*-insertion for un-governed slots occurs twice:
 - It is evaluated *before* the ∅ material is deleted, shown in (15-c)
 - It is evaluated *after* the ∅ material is deleted, shown in (9)[c]

3.6 Remaining Verbal Stems: *-li* and *-chi* Verbs

- The remaining verbs are *-li*, *-chi* verbs.
- These are similar because they seem to involve “periphrastic conjugation”. See table 5.

4 Lexically Specified Conjugation Classes

- A small set of verbs belong to lexically specified conjugation classes
 - *nochi* ‘to sleep’
 - *hiicha* ‘to see’
 - *haalo* ‘to hear’
- These are CVCV/CVVCV stems but take with the iCV conjugation, as illustrated in table 1.

	SG	PL
1	nochi-li-ti	il -nochi-ti
2	is -nochi-ti	has -nochi-ti
3	nochi-ti	(ho)-nochi-ti

Table 1: *nochi* ‘to sleep’

(16) a. **Underlying form *no***

C ₁	V ₁	C ₂	V ₂	C ₃	V ₃
				⋮	⋮
		n	o	ch	i

b. **Inflection of 1PL: left of C₂ (per pivot rule)**

C ₁	V ₁	<C ₃	V ₃ >	C ₂	V ₂	C ₃	V ₃
						⋮	⋮
		l		n	o	ch	i

c. ***i*-insertion: no “monosyllabic” stems**

C ₁	V ₁	<C ₃	V ₃ >	C ₂	V ₂	C ₃	V ₃
						⋮	⋮
	i	l		n	o	ch	i

d. **Melodic Material linked**

C ₁	V ₁	<C ₃	V ₃ >	C ₂	V ₂	C ₃	V ₃
	i	l		n	o	ch	i

- **Relative order of 1SG and NEG**

- In 1SG for all verbal stems the order of morphemes is AGT < NEG *except in CVVCV and CVCCV, which AGT < NEG*

– *cho<k-aa>po-ti* ‘we didn’t buy’

– *los<a-k>ko-ti* ‘we didn’t buy’

- **Suppletive Roots**

- Many motion verbs in Alabama exhibit suppletive roots conditioned by number. For example, *ałła* ‘to go’ shows distinct stems in singular, dual, and plural contexts, as illustrated in table 2, and *wiika* / *aswa* / *iisa* ‘to exist’, shown in table 3

	SG	DU	PL
1	<i>ałła-li-ti</i>	<i>anłłiya-ti</i>	<i>amaa-il-ka-ti</i>
2	<i>ałł-chii-ya-ti</i>	<i>ałł-hachii-ya-ti</i>	<i>amaa-s-ka-ti</i>
3	<i>ałła-ti</i>	<i>ałła-chi-ti</i>	<i>amaa-ka-ti</i>

Table 2: *ałła* ‘to go’

	SG	DU	PL
1	<i>wiika-li-ti</i>	<i>a-li-swa-ti</i>	<i>iis(a)-t-il-ka-ti</i>
2	<i>wii-his-ka-ti</i>	<i>a-hachi-swa-ti</i>	<i>iis(a)t-as-ka-ti</i>
3	<i>wiika-ti</i>	<i>aswa-ti</i>	<i>iisa-ti</i>

Table 3: *wiika/aswa/iisa* ‘to exist’

Syll. Structure	Infix Placement	Example Word	1PL Output	2SG Output	2PL Output
i.CV	<iX>CV	<i>i.pa</i>	<i>il-pa</i>	<i>is-pa</i>	<i>has-pa</i>
-VVka	-VV<(h)iX>ka	<i>afaa.ka</i>	<i>afaa<(h)il>ka</i>	<i>afaa<(h)is>ka</i>	<i>afaa<has>ka</i>
-VCka	-VC<iX>ka	<i>los.ka</i>	<i>los<il>ka</i>	<i>los<is>ka</i>	<i>los<has>ka</i>
Periphrastic	-t-X-ka	<i>ootoba</i>	<i>ootoba-t-il-ka</i>	<i>ootoba-t-is-ka</i>	<i>ootoba-t-as-ka</i>
CVV.CV	CVV<X>CV	<i>hi.naa.ta</i>	<i>hinaa<l>ta</i>	<i>hinaa<s>ta</i>	<i>hinaa<(h)as>ta</i>
-chi	-chi<X>ka	<i>aaba.chi</i>	<i>abaa-chi<l>ka</i>	<i>aaba-chi<s>ka</i>	<i>abaa-ch<as>ka</i>
CV.CV	CVC<X>	<i>hom.pa.ni</i>	<i>hompan-hili</i>	<i>hompan-chi</i>	<i>hompan-hachi</i>
-li	-Xi	<i>bit.li</i>	<i>bit-hili</i>	<i>bit-chi</i>	<i>bit-hachi</i>
-li	-Xi	<i>soo.li</i>	<i>soo-hili</i>	<i>soo-chi</i>	<i>soo-hachi</i>
CVC.CV	CV<Xi>CCV	<i>hokcho</i>	<i>hokcho</i>	<i>ho<chi>kcho</i>	<i>ho<hachi>kcho</i>

Table 4: Positive Agent Infix placement, organized by agent allomorph

Syll. Structure	1SG	1PL	2SG	2PL	3SG
<i>i.la</i>	<ak>lo	<kil>lo	<chik>lo	<hachik>lo	<ik>lo
<i>afaa.ka</i>	afaa<??>ko				
<i>los.ka</i>	los<ak>ko	los<kil>ko	los<chik>ko	los<hachik>ko	los<ik>ko
<i>choopa</i>	cho<k-aa>po	cho<ki-lii>po	cho<chi-kii>po	cho<hachi-kii>po	cho<kii>po
<i>aaba.chi</i>	abaa-ch<ak>ko	abaa-chi<kil>ko	abaa-chi<chik>ko	abaa-chi<hachik>ko	abaa-chi<k>ko
<i>aʔi</i>	aʔ<tak>o	aʔ<kil>o	aʔ<chik>o	aʔ<hachik>o	aʔ<k>o
<i>bit.li</i>	bit<tak>ko	bit<kil>ko bit<hilik>ko	bit<chik>ko	bit<hachik>ko bit<hask>ko	bit<k>ko
<i>soo.li</i>	soo<tak>ko	soo<kil>ko bit<hilik>ko	soo<chik>ko	soo<hachik>ko	soo<k>ko
<i>hok.cho</i>	ho<ka>kcho	ho<kili>kcho	ho<chi-ki>kcho	ho<hachi-ki>kcho	ho<ki>kcho

Table 5: Negative Stem placement patterns across syllable structures

Syll. Structure	Infix Placement	Example Word	Output
i.CV	<iX>CV	<i>i.pa</i>	<i><il>pa</i>
-VVka	-VV<(h)iX>ka	<i>afaa.ka</i>	??
-VCka	-VC<iX>ka	<i>los.ka</i>	???
Periphrastic	-t-X-ka	<i>ootoba</i>	??
CVV.CV	CVV<X>CV	<i>choopa</i>	<i>choo<l>pa</i>
-chi	-chi<X>ka	<i>aaba.chi</i>	<i>abaachi-t<il>ka</i>
CV.CV	CVC<X>	<i>ta!a</i>	<i>ta!-<ka></i>
-li	-Xi	<i>batli</i>	<i>bat-<ka></i>
-li	-Xi	<i>albitiili</i>	<i>albitii-<ka></i>
CVC.CV	CV<Xi>CCV	<i>hosso</i>	<i>hosso</i>

Table 6: Middle Voice morphology placement patterns across syllable structures