

Subtractive Morphology in Historical Choctaw

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Introduction

- **Subtractive processes in Historical Choctaw (Muskogean) can be reanalyzed as concatenative, but doing so requires highly abstract objects**
- Analyses of subtractive morphology appear in works like Kurisu (2001)
- But many authors (Dressler, 1987, Bye and Svenonius, 2010, Trommer and Zimmermann, 2014) consider subtractive processes to be incompatible with modern theories of morphology
- subtraction is instead epiphenomenal deletion resulting from other morphophonological processes

Modern approaches to subtraction

- subtractive
 - FAITH >> REALIZE MORPHEME
 - a phonological feature which triggers deletion in a particular grammar
- epiphenomenal
 - phase boundary vowel deletion
 - templates with extraprosodic deletion
- Subtractive and epiphenomenal analyses both achieve empirical coverage, so deciding between them requires discussion of theoretical palatability:
- **How do we determine which abstractions are palatable in phonology?**

H-insertion

- Kimball (1982) proposes that the final consonant of many verbs is/was an isolable morpheme which contributes additional semantics
- specifically the ones which seem to alternate with subtraction (roughly {p, t, f, Ø} in Historical Choctaw)

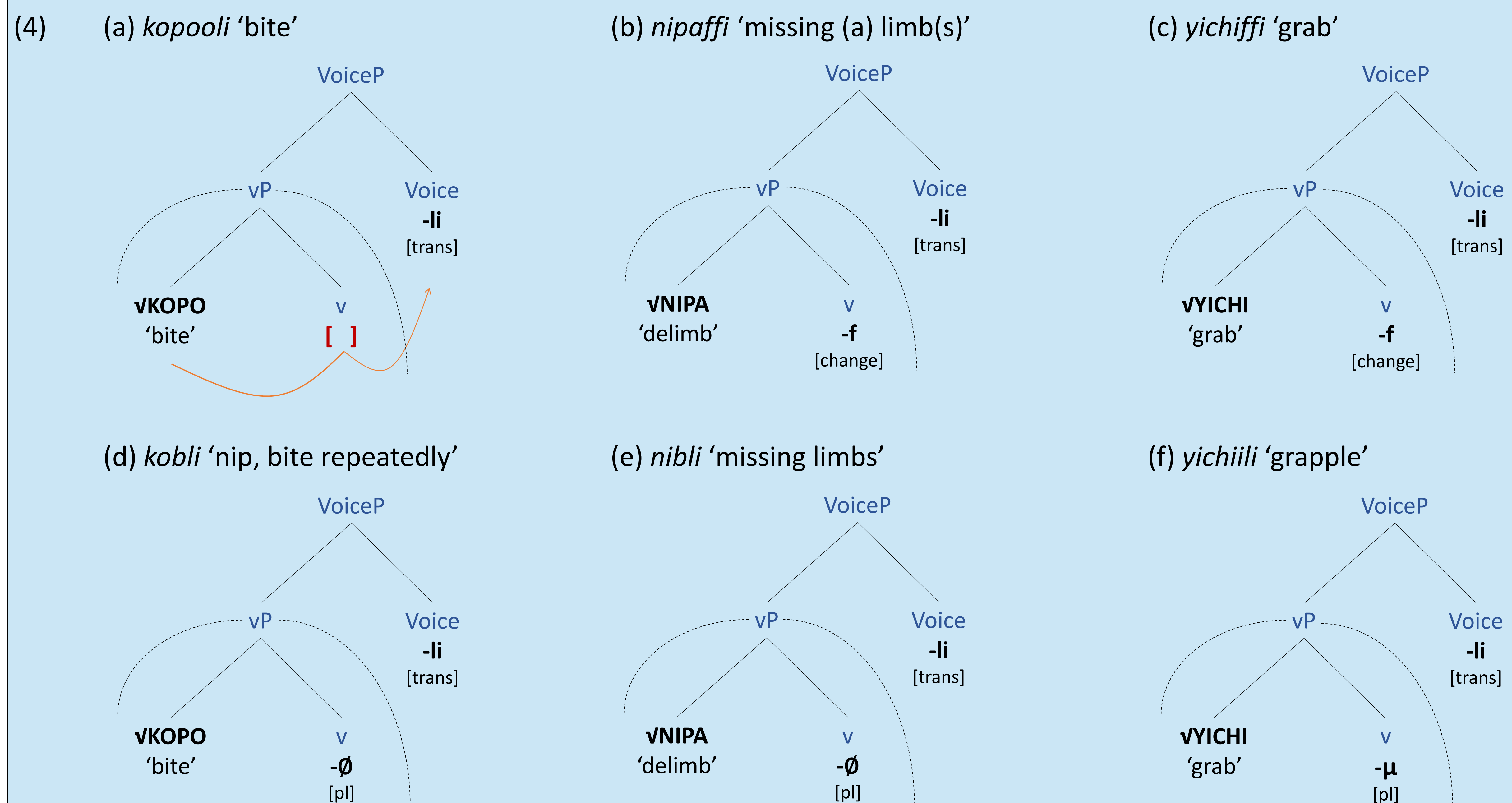
(2)	shibaffi	vs.	shibaffi		shibahli
	shibaf -li		shiba -f -li		shiba -h -li
	shatter.sg -trans		shatter -change.sg -trans		shatter -pl -trans
	'splinter'		'splinter'		'splinter repeatedly'

A phase-based analysis

- Two different types of phonologically null heads (possible under the Universal Spine Hypothesis; Wiltschko, 2014)
 - **(a) empty categorizing head (v°), no semantic contribution (thus number neutral)**
 - **(b) phonologically null plural allomorph -Ø-, contributes plurality to the semantics**

(3)		<u>ROOT</u>		<u>v°</u>		<u>Voice°</u>	<u>Semantics</u>
	<i>kopooli</i>	<i>kopo</i> 'bite'	+	[]		<i>li</i> 'trans'	(a) number neutral
	<i>kobli</i>	<i>kopo</i> 'bite'	+	Ø 'pl'	+	<i>li</i> 'trans'	(b) plural
	<i>nipaffi</i>	<i>nipa</i> 'delimb'	+	<i>f</i> 'change.sg'	+	<i>li</i> 'trans'	???

- Why deletion? A constraint against final vowels at the right end of the vP phase
- motivating the movement in (4.a)?



Disadvantages of this analysis

- motivating movement
- two different nulls
- the coda deleting suffix, falsifiable predictions

Historical Choctaw

- Historical Choctaw: Choctaw (Muskogean) doculects (Cysouw and Good, 2013) from 1775-1914
- compiling all the Historical Choctaw plural verb forms from Cyrus Byington's (1915) *A Dictionary of the Choctaw Language*
- 487 singular-plural pairs

(1) Subtractive phenomena (adapted from Broadwell, 1993)

	<u>singular</u>	<u>plural</u>
(a) <u>h-insertion</u>	shibaffi shibaf -li shatter -trans 'splinter'	shibahli shibah -li shatter:pl -trans 'splinter repeatedly'
(b) <u>coda deletion</u>	yichiffi yichif -li grab -trans 'grab'	yichiili yichi -li grab:pl -trans 'grapple'
(c) <u>rhyme deletion</u>	kopooli kopo -li bite -trans 'bite'	kobli kop -li bite:pl -trans 'nip, bite repeatedly'
	nipaafa nipaf -a delimb -intrans 'missing (a) limb(s)'	nipa nip -a delimb:pl -intrans 'missing limbs'

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A templatic analysis

- Coda deletion and rhyme deletion are formed with a CVCV and CVC template respectively.
- When the vP phase is spelled out, any extraprosodic material is deleted.

(5) $[[nipa + CVC]_{vP} + li]_{VoiceP} \rightarrow \begin{matrix} CVC \\ | | | \\ [n \ i \ p \ a] -li \end{matrix} \rightarrow /nibli/$

Disadvantages of this analysis

- empirically imperfect (three subtractive plural stems have the wrong shape)
- What is templatic morphology?
 - "theories differ in what counts as a morpheme: the root, the template, both, or neither. Accordingly, theories differ as to what representations learners must posit and what processes generate the eventual surface forms," (Kastner, 2019) leading some to analyze templates as epiphenomena as well