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Goal: Make recordings searchable by morpheme, alternation type

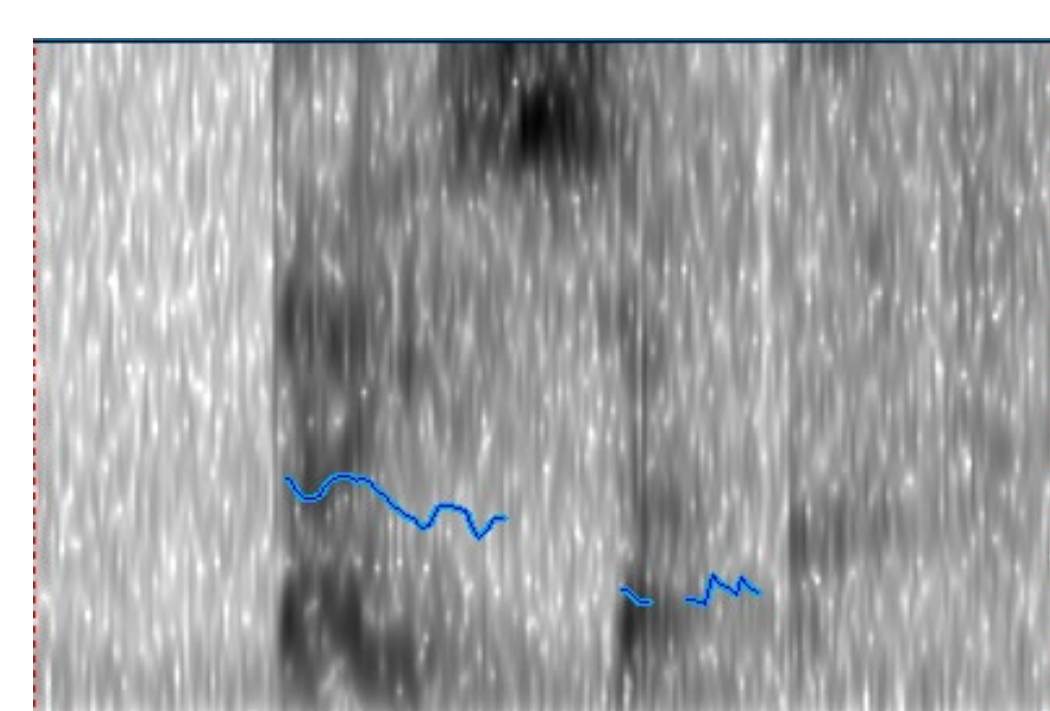
Corpus

- Audio recordings, 1974-1975, with handwritten field notes
- Wisconsin Native American Languages Project, digitized by UWM Libraries
- ~28 hours of elicitation sessions with linguist Kenneth Miner
- ~7800 utterances
 - Mostly words in isolation
 - ~120 verb paradigms (often partial)
 - Most speech by Lavina Thorud (Maaxiánažiwíga); 400 utterances by Robinson Johnson (Xíigugá)

Annotation project (summer 2017-present)

- stage 1: phonemic transcription in modified ARPABET; glossing
- *****stage 2: morphological and phonological analysis*****
- also ongoing: transcription of English conversation during elicitation
- not yet begun: transcription of accent (often difficult to determine)

Annotation



Gloss and entry # in <i>Winnebago Field Lexicon</i>	3231 I am cold
Phonetic transcription in ARPABET (= tāisak)	T AIN S A K
Underlying representation (= ta:-hī:-sa:k)	T AA - H IN - S AA K
Morphological parse	by.heat-1E.U-ROOT
Phonological rules	V shortening, h-elision, nasal spread
Morphological class	verb class 3

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Corpus examples of some Hocank morpho-phonological alternations

Eliding /h/

In lexically specified morphemes, /h/ elides word-internally.

- Vowels brought together through this process create a diphthong.

tāisak
/ta:-hī:-sa:k/
by.heat-1E.U-ROOT
'I am cold' (reel 110a)

Eliding /w/

w → ∅ / V __ V (optional)

We found few examples of this, perhaps due to careful speech in elicitation conditions.

nī:nāox ~ nī:nāwox
/nī:nāwox/
'beer' (reel 112a)

Vowel length alternations

Long stem vowels shorten after a prefix.

ta:sak
/ta:-sa:k/
by.heat-ROOT
'he is cold' (reel 110a)

Vowels lengthen before the declarative suffix -nā.

waxiri:nā
/wa-xri-nā/
by.downward.pressure-ROOT-DECL
'he squashes it' (reel 119b)

V → [-long] / __ V (fed by intervocalic h-elision)

tāisak
/ta:-hī:-sa:k/
by.heat-1E.U-ROOT
'I am cold' (reel 110a)

(This example also shows nasality spread within a derived diphthong)

Obstruent voicing alternation

[-son] → [+voice] / __]_{stem} [+son]

hokiyodʒire
/ho-ki-yo:tʃire/
APPL.INESS-RCP-ROOT-SBJ.3PL
'they help each other' (reel120a)

Copy vowel epenthesis (Dorsey's Law)

∅ → V_i / _σ[C __ RV_i

kirikirif juruhasānā
/kri-kriʃ/ /ʃ-ruhas-fnā/
RED-ROOT 2.A-ROOT-DECL
'colorful' (reel 110a) 'you open it' (reel 199b)

- 2nd example also shows sibilant cluster reduction

Nasal spread

{i, a, u} → [+nasal] / [+nasal] __

r → ɾ / V __

hī:ʃahodʒa:nā
/hī:-ʃahodʒa-nā/
1E.U-ROOT-DECL
'he insults me' (reel 126a)

- Vowel nasalization feeds /r/-nasalization, but /r/-nasalization does not feed vowel nasalization.
- Nasality also spreads bidirectionally in derived diphthongs
- Recent descriptions claim that [ɾ] is now [n].

Ablaut

/e/ becomes [a] before certain suffixes

hī:wadʒairawinā
/hī:-wadʒa-hire-wi-nā/
1E.U-ROOT-OBJ.3PL.PL-DECL
'they push us' (reel119a)

Vowel deletion in declarative suffix

The declarative suffix /-nā/ optionally loses its final vowel.

- This creates [ŋ]-final syllables, which otherwise do not exist in Hocank (underlying codas are always obstruents).

karahaire:n ~ karahaire:nā
/karahe-ire-nā/
ROOT-SUBJ.3PL.-DECL
'they start going back' (reel 132b)

Applications

Morpho-phonological analysis is helping us to clarify transcription issues such as vowel length, which is important for the study of accent. The annotation will enable researchers to find examples of particular morphological and phonological processes for further phonological or phonetic analysis.