Preverbal Nonaffixal Ordering in Yurok (Algic)
Introduction

- Algic language in Northern California
  - distantly related to Wiyot and Algonquian languages
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- **Algic language in Northern California**
  - distantly related to Wiyot and Algonquian languages

- **Over 70 preverbs (particles in preverbal position)**
  - Various functions such as TAM, quantification, negation, manner, motion, etc.

Modal   (1) **Cho’** kemey-em’. (LC-01-2, 2007)
  - MOD  go.home-2S
  - ‘Go home.’

Motion   (2) **Nu** hl’os!   (GT3-06, 2003)
  - MOT  get.IMP
  - ‘Go get it!’
<table>
<thead>
<tr>
<th>Adverbial</th>
<th>Time ('still, yet'): kitkwela, kitkwo, tkwola, ('and then'): to's</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other:</td>
<td>eni ('completely, all over'), k’eso ('apparently, it seems')</td>
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<tr>
<td>Comparative</td>
<td>'ini, nini, noni</td>
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<tr>
<td>Directional, Locational,</td>
<td>Directional: hi, ‘ini (‘around’); → ho* ← (‘to’); s(h)o, sela (‘in a particular direction’)</td>
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<tr>
<td>Circumstantial (DirLocCirc)</td>
<td>Locational: i, ni, 'o</td>
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<td>Circumstantial (‘by, for, from, with,’ etc.): ‘emehl, mehl</td>
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<tr>
<td>Manner</td>
<td>noo (‘like others’), s(h)oo (‘thus, thusly’)</td>
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<tr>
<td>Modal</td>
<td>Imperative: chi, cho Desiderative: kito, kitow</td>
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<td>Irrealis: s (would, could, should)</td>
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<td>Necessity, Possibility, Future: k (will, can, must)</td>
</tr>
<tr>
<td>Motion</td>
<td>nu (‘go do X’)</td>
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<tr>
<td>Negative (+ other)</td>
<td>‘emi, mi, mo, mos, mosi, paas, s(h)emi</td>
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<td>‘imi (‘i + mi), nimi (ni + mi), kimi (ki + mi),</td>
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<td>Emphatic: imoksu, kenimi, nimok(w)su</td>
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<td>Existential: nimok’w(s) (‘there is not, not any, none’)</td>
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<tr>
<td>Quantifier</td>
<td>kichu (‘each’), chpi (‘only’),</td>
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<td>‘all’: chu (chyu), nikichu, ikichu, kikichu (+ FUTURE), numichu</td>
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<tr>
<td>Time reference</td>
<td>Future: kesi, kit (INCEP), kiti (NEAR FUTURE), kiki (FUT + CONSEC)</td>
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<td>Present: kich (COMPL), och, ochkaa (DUR)</td>
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<td>Past: ‘ap, → ho* ←, ‘el, ‘ela, ‘esi, mela, mep, ‘ochkich (RECENT PAST), ni, uma, wo (ho.PAST when preceded by negative preverb)</td>
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<td>Modal/Future/Past/Other ??: ko</td>
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<td>Unrestricted: ‘iki, niki (CONSEC); kap (‘then’); mesi (SUBSEQ); wo’ni (CONTEMP)</td>
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<tr>
<td>Modal + Motion</td>
<td>ku (ki + nu)</td>
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<tr>
<td>Modal + Circumstantial</td>
<td>kihl (ki + mehl)</td>
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<tr>
<td>Time + motion</td>
<td>kitu (kiti + nu); ‘ema/’eme, → ma ← (me, maloh) (PAST.PUNCTUAL + MOTION)</td>
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</table>
Preverb clusters

- Preverbs may cluster
  - Up to groups of at least 4 within a clause/predicate attested

  \[(3) \text{Cho nikichu 'ap 'emehl 'r'grp 'wo-'o'leh!} (YL, 1951)\]
  \[
  \text{MOD all/every TIME CIRC tell 3-house} \\
  \text{‘Go and tell the news at every house!’}
  \]

- There can be intervening material between the preverbs
  - Only pronouns, adverbs, or numerals intervene (Robins 1958)

  \[(4) \text{Cho poy ko 'o key ku k'e-rahchin.} (YL, 1951)\]
  \[
  \text{MOD front MOD? LOC sit the 2-friend.} \\
  \text{‘Your friend must sit in front.’}
  \]
Research Questions

- What are the ordering facts of preverbal particles in Yurok?
- What constraints govern these ordering facts?
- Typological and theoretical questions
  - Non-affixal counterpart to verbal morphology in agglutinating languages?
  - How do the ordering facts stack up with existing theories of ordering constraints?
Research Questions + Method

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- Look at bigram patterns (adjacent and nonadjacent)
- Categorize preverbs into semantic bins and examine bin bigrams
  - Non-coocurrence restrictions might be expected of preverbs of highly similar functions
- Continually analyze data and recategorize bins as needed
Adjacent bigrams
<table>
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<tr>
<th>Following preverb</th>
<th>Adv time</th>
<th>Adv</th>
<th>Neg Emph</th>
<th>Neg</th>
<th>Quant</th>
<th>Comp</th>
<th>Neg + Modal</th>
<th>Modal</th>
<th>Time Nonpast</th>
<th>Time Subseq</th>
<th>Time Past</th>
<th>Time Past Low</th>
<th>DLC</th>
<th>Motio n</th>
<th>Manne r</th>
<th>Mod + Mot</th>
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Findings (thus far)

- General order observed:
  - Modal/Time Nonpast > Time Past > DirLocCir > Time Past Low > Motion/Manner
Findings (thus far) + Case Study

- General order observed:
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- Why “Time Past Low” so low?
Findings (thus far) + Case Study

- General order observed:
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- Why “Time Past Low” so low? Two core examples:
  - *ho* (directional/past)
  - *ma* (past + motion)
Case study: *ho*

[Modal/Time Nonpast > Time Past > DirLocCir > Time Past Low > Motion/Manner]

- *ho*  (preposition >) directional preverb > past time preverb

  - **Preposition**
    
    (5) Chpaanik' **ho** Kohpey.  
    be.far.3 to Crescent.City  
    It is a long way to Crescent City.

  - **Directional preverb**
    
    (6) Hitoo **ho** nii'nes!  
    here DIR see.2.IMP  
    ‘Look this way!’

  - **Past time preverb**
    
    (7) Kich  
    hoo'yk'etek' [ku ku'l mehl **ho** nepi'moh.]  
    COMPL.PRES lose.1SG the thing CIRC PAST eat.COLL.1PL  
    ‘I lost what we used to eat with.’
Case study: ma

[Modal/Time Nonpast > Time Past > DirLocCir > Time Past Low > Motion/Manner]

- **ma** past + motion > past only
  - Past + motion
    - (8) Nek kem **ma** chege'loh. (YL, 1951)
      - I too PAST.MOT gather.seaweed
      - ‘I too went seaweed gathering.’
  - Past (+ metaphorical motion?)
    - (10) Ni **ma** kaamu’n ‘-uuksoh. (LA138-057, 1980)
      - LOC PAST(.MOT?) grow.badly 3-child
      - ‘His or her child is deformed.’
Case summary

[Modal/Time Nonpast > Time Past > DirLocCir > Time Past Low > Motion/Manner]

- *ho* and *ma* have overlapping functions (past time) and never co-occur
- both are or have low preverb components, diachronically or synchronically (directional *ho*, motion in *ma*), and stay low despite time semantics

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Case summary + Ongoing questions

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- How do the Yurok preverb ordering facts stack up with existing theories of ordering constraints?
  - Templatic (e.g., Hyman 2003)
  - Semantic/syntactic scope (e.g., Rice 2000)
  - Morpho/phonological (e.g. Inkelas 1993, Paster 2006)
  - Processing (e.g., Hay and Plag 2004, Plag and Baayen 2009)
  - Acquisition (e.g., Ryan 2010)
  - Historical
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\[ ho \quad ma \]
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- What about other preverbs (and preverb bins)? And counter orders?


**All Yurok data from:**

University of California. 2001-2014. Yurok Language Project Digital Archive [YLPDA].

[http://linguistics.berkeley.edu/~yurok](http://linguistics.berkeley.edu/~yurok)