Conditioning of Allomorphy in the Kashaya Durative

EUGENE BUCKLEY
UNIVERSITY OF PENNSYLVANIA

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Outline of talk

• Description of factors determining choice of allomorph
  – preceding segment
  – size of stem
  – avoidance of repeated sequences
  – underlying vs. surface form

• Speculation on historical origins
  – seems to start with two allomorphs that were originally distinct suffixes
  – then much reanalysis, especially of one suffix
Pomoan languages

California

Northern

Central

Southeastern

Southern

Eastern

Northeastern

Kashaya
Durative suffix

• Very common verb suffix (Oswalt 1961)
  – ongoing or repeated action
  – “most frequently translated with a progressive tense in English or with the phrase ‘keep on ...ing’. ”

• Dozens or hundreds of examples of each form
  – mainly from materials collected by Oswalt

• Some verbs always take the Durative
  – “/qawa·du/ ‘to chew’ or ‘to be chewing’. ”

• Can be repeated in succession
  – “habitual or customary action”
Conditioning by segment

• Much allomorphy depends on preceding segment
  – consonant vs. vowel
  – among consonants, palatal affricate vs. other
  – suffixal /d/ different from other segments
    • no doubt related to fact that every Durative ends in /d/

• Intersects with other conditions
  – such as length of stem
  – will return to this later
After a vowel

• Two main options
  – both shaped CVC
  – depends on length of stem (details below)

• After a vowel in a short stem: -cid
  
  - $c^h_o$-cid-
  - cahno-cid-
  - qaʔba-cid-

  ‘lack, not have’
  ‘sing’
  ‘crack with teeth’

• After a vowel in a longer stem: -med
  
  - hot’o-t-ala-med-
  - cup$^h$uhqa-med-
  - $\tau^h$aʔbam-ci-med-

  ‘move head down’
  ‘have sour stomach’
  ‘happen’
After /c/ or /c’/

- Two main options with palatal affricate, [tʃ]
  - both shaped VC
  - also depends on length of stem

- After a palatal in a short stem: -id
  - bac-id- ‘grow’
  - tubic-id- ‘wake up’
  - di·c’-id- ‘talk’

- After a palatal in a longer stem: -ed
  - pihki-bic-ed- ‘raise neck’
  - qanemac’-ed- ‘be related’
  - mo-mulic’-ed- ‘run in circles’
### Other consonants

- **After non-palatal consonants:** -ad
  - also shaped VC
  - does **not** depend on length of stem

- **After a consonant in a short stem**
  - qal-ad-
    - ‘shoot (arrows)’
  - boʔot-ad-
    - ‘hunt’
  - duhlud-ad-
    - ‘pick one’

- **After a consonant in a longer stem**
  - hihsisil-ad-
    - ‘feel scratchy’
  - buʔs’unay-ad-
    - ‘make kissing noise’
  - duhlabat-ad-
    - ‘faint’
Except with /d/

• Usual -ad is replaced by -uced after suffixal /d/
  – typically this is another Durative
  – yields a Habitual meaning

• Examples with preceding Durative
  ci·c’-id-uced- ‘do’
  da·qac’-ed-uced- ‘like’
  buwi-cid-uced- ‘string beads’
  ?dane-med-uced- ‘throw away’
  bahnat-ad-uced- ‘ask about’
Prosodic size

- “Short stem” forms -cid, -id occur after one syllable
  - modulo extrametricality of first syllable
  - blocked when root is monosyllabic and unprefixed

- After a short stem: -cid, -id
  
  \[
  (\text{ca-cid-}) \quad \text{‘sit’}
  \]
  \[
  (\text{bac-id-}) \quad \text{‘grow’}
  \]
  \[
  <\text{tu}>(\text{bic-id-}) \quad \text{‘wake up’}
  \]

- After a longer stem: -med, -ed
  
  \[
  (\text{wala})(-\text{med-}) \quad \text{‘go down’}
  \]
  \[
  <\text{qa}>(\text{nema})(\text{c’-ed-}) \quad \text{‘be related’}
  \]
Vowel height “dissimilation”

• Variant -ced occurs after three frequent monosyllabic verbs ending in /i/
  
  ??i-ced- ‘be’
  s’i-ced- ‘do’
  mi-ced- ‘say’

• No general rule would cause this
  – must be listed allomorph
  – but apparently conditioned by Ci root
Haploology effect

• Although **-med** is expected for longer stems, after a suffix of the shape **-ma** (either Plural or Essive) it is more common to find **-cid**
  
  \[ \text{pahyoq}^h\text{-ma-cid-} \quad \text{‘stir many times’} \]
  \[ \text{cuhtenh-ma-cid-} \quad \text{‘stack objects’} \]

• This choice avoids **-ma-med**, with near-repetition of the CV pattern
  – not required, but more common
  – quick count is 32 vs. 9

• Notably **not** **-ci-cid** (Semelfactive) instead of **-ci-med**
  – since that would create a gratuitous haploology context
Suffix identity

• Some distributions require reference to particular suffixes or lexical items
• Expected -med is optionally replaced by -wad after the Causative -hqa
  \[ qa?di-hqa-wad- \] ‘send to fetch’
  \[ banala-hqa-wad- \] ‘knock down’
• This is the only use of -wad by Oswalt’s main consultant (Essie Parrish)
  – can be difficult to distinguish in the corpus from homophonous -wad as Distributive ‘here and there’
Root identity

• As noted, -uced occurs after suffixal /d/
  
  buwi-cid-uced- ‘string beads’
  – usually -ad after stem ending in /d/
    duhlud-ad- ‘pick fruit’

• But also occurs with two roots that end in Durative-like sequences
  – /ad/ or /ed/ and preceding /c/
    cad-uced- ‘look’
    nihced-uced- ‘say’
    hced-uced- ‘say’ (short form)
Root identity

• These roots are not analyzable as containing a Durative suffix

• Might be another haplology effect
  – since otherwise would have repeated /Vd/
    *cad-uced-  ‘look’
    *cad-ad-
    nihced-uced-  ‘say’
    *nihced-ad-

• Also yields rhythmic cad,u,ced and ced,u,ced
  – in this case, preceding /c/ is crucial
  – similar to regular cases like -cid-uced-
Plural Agent

• Feature causes /d/ to become /c’/
  – unusual process but quite regular
  – independent interactions with other palatals
    • \(duc \rightarrow c’uc \rightarrow c’ic\)
    • \(ced \rightarrow cec’ \rightarrow yic’\)

• Final consonant of a root:
  \(duhlud-\) ‘one pick something’
  \(duhluc’-\) ‘several pick something’

• Anywhere in a suffix (here, a Directional):
  \(mo-maduc-\) ‘one arrive running’
  \(mo-hti-mac’ic-\) ‘several arrive running’
Durative and Plural Agent

• Also applies to Durative suffixes
  – every allomorph ends in /d/
    
    *mo-h qa-*med-*  ‘one drive (a car)’
    
    *mo-h qa-*mec’-*  ‘several drive (a car)’
  
• Interacts with the choice of Durative
  – since final /d/ and /c’/ are conditioning factors

• Allomorphs make reference to presence of Plural Agent feature
  – not solely the phonological outcome /c’/
Underlying /c’/

- Allomorph -\textit{wad} is optional after Causative -\textit{hqa}
- Plural Agent form -\textit{wac’} has different distribution
  - occurs after /c’/ in verbs marked as Plural Agent
  - but only if it is underlyingly /c’/, not derived from /d/
- After a root:
  \begin{align*}
  & \text{\textit{di}·c’-\textit{id}-} & \text{‘one tell’} \\
  & \text{\textit{di}·c’-\textit{wac’}-} & \text{‘several tell’}
  \end{align*}
- After a suffix:
  \begin{align*}
  & \text{\textit{muhsam-cic’-\textit{ed}-}} & \text{‘one bounce back’} \\
  & \text{\textit{muhsam-cic’-\textit{wac’}-}} & \text{‘several bounce back’}
  \end{align*}
Underlying /d/

- Underlying /d/ takes -uced
  - even in Plural Agent where the /d/ surfaces as /c’/
  - note that d-uced → c’-ucec’ → c’-iyic’

- After a root:
  - cad-uced- ‘one see’
  - cac’-iyic’- ‘several see’

- After a suffix (here, another Durative):
  - cadut-ad-uced- ‘one examine’
  - cadut-ac’-iyic’- ‘several examine’
Underlying form

• Compare underlying /c’/
  - di·c’-id- ‘one tell’
  - di·c’-wac’- ‘several tell’

• With underlying /d/
  - cad-uced- ‘one see’
  - cac’-iyic’- ‘several see’

• Choice of allomorph makes crucial reference to two properties
  1. presence of Plural Agent feature
  2. underlying form of the preceding surface /c’/
Reference to underlying form

• Interaction with the Plural Agent supports reference to underlying rather than surface forms
  – this is actually required by many theories of allomorph selection (see Paster 2006)
    • in particular, if allomorphs are chosen before phonological processes occur
  – though the morphosyntactically triggered change from /d/ to /c’/ is not a typical phonological rule

• But underlying form is not sufficient for another part of Kashaya allomorphy...
Reference to extrametricality

• In prosodic conditioning, we need information that is not underlying
  – use -cid and -id if just one syllable is present
    • modulo extrametricality
  – productively assigned based on morphological structure
    • not something that should be listed underlyingly

• Works best if extrametricality is applied to stem (unless blocked) and then visible syllables counted
  – prosody might be accessible to allomorphy in a way that segmental changes like the Plural Agent are not
Summary

• cid after vowel, mostly with short stem
• ced after Ci roots
• med after vowel, with long stem
• id after palatal affricate, with short stem
• ed after palatal affricate, with long stem
• uced after underlying /d/, mostly in suffixes
• wad optional after Causative
• wac’ after underlying /c’/ in the Plural Agent
  – further research needed on -wad and related forms
Possible origins

• Why are there so many allomorphs?
  – and why do they all end in /d/?
• Apparently only two of them are directly inherited
  – based on cognates: -cid and -ad
  – common /d/ appears to be coincidental for these two
• Others allomorphs in Kashaya likely result from historical reanalysis of boundaries
  – we can speculate about a variety of potential paths
Pomoan family

Proto-Pomo

Western Branch

Southern Group

Kashaya Southern Central Northern Northeastern Eastern Southeastern
Pomoan cognates

- **Proto-Pomo **-*kid* (McLendon 1973)
  - Kashaya: Durative -*cid*
  - Eastern: Habitual -*kil*, Durative -*l*
  - Southeastern: Durative -*l* (Moshinsky 1974)

- **Western branch: **-*adu*
  - Kashaya: Durative -*ad*
  - Southern: Imperfective -*ad(u)* (Walker 2012)
  - Central: Imperfective -*ad(u)*, pl.agt. -*ac’i* (Mithun 1990)
  - Northern: Progressive -*ad* (O’Connor 1990)
Paths of *-kid: Getting shorter

• Original -cid
  – survives as a basic allomorph
  – persistence in longer stems, after -ma, might be a relic of previous wider distribution

• Recutting to create smaller -id
  – occurs with short stems, like -cid

• Very likely involving common Semelfactive -c
  – original -cid reinterpreted as -c-id
  – this is why -id always follows a palatal
    • extended to /c’/, perhaps under influence of Plural Agent
Paths of *-kid: Vowel height

• Lowered vowel in -ced
  – survives now as limited allomorph with Ci- roots
  – but also as part of longer form -uced
    • more on this below

• Same vowel in -ed and -med
  – perhaps old rule of lowering when not stressed
  – they occur later in the word than -id and -cid

• Only one productive i ~ e alternation now
  – related to palatals: roughly e → i / c _ c
  – uncertain causal relation to -ced allomorph
Paths of *-kid: Getting longer

• Recutting to create -med
  – presumably from previously created -ed
  – likewise occurs with longer stems
• Probable role for common Essive -m
  – often has a stative meaning, compatible with Durative
  – original -m-ed reinterpreted as -med
    • conforms to CVC shape of existing -cid
• Yields system of four allomorphs
  – short stem -cid and -id
  – long stem -med and -ed
  – all ultimately derived from original -cid
Paths of *-adu: Reanalysis

• Likely originates in Directional -ad ‘along’
  – the most “durative” of the Directional suffixes
    • see Walker (2012: 307f) on Southern Pomo
  – seems to be a Proto-Western innovation

• Recutting to create -uced
  – presumably original -adu-ced
  – reanalyzed as -ad-uced when /u/ was lost from -adu

• General reanalysis of /u/ in this suffix
  – originally deleted from -adu by SYNCOPE
  – later treated as insertion after -ad by EPENTHESIS
  – ultimately yields “crazy rule”: i → u / d __
    • found in Central, Southern, and Kashaya (Buckley 2004)
Final points

• Allomorph -wad probably from the Distributive
  – related sense: “here and there”, “all around”
  – implies Durative meaning
    • still hard to distinguish the suffixes at times

• Open question
  – why did Kashaya add so many new allomorphs?
  – related to the fact that there were already two forms, -cid and -ad, that both have a final /d/?
  – part of an attempt to impose a coherent system on the existing forms?
References


