Conditioning of Allomorphy in the Kashaya Durative

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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
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
  
cʰo·-cid-                            ‘lack, not have’
  cahno·-cid-                          ‘sing’
  qaʔba·-cid-                          ‘crack with teeth’

• After a vowel in a longer stem: -med
  
hot’o-t-ala·-med-                    ‘move head down’
  cupʰuhqa·-med-                      ‘have sour stomach’
  ṭʰaʔbam-ci·-med-                    ‘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: -\textit{id}
  \begin{itemize}
    \item \textit{bac-id-}  \textit{tubic-id-}  \textit{di\textcdot c’-id-}  \text{‘grow’ ‘wake up’ ‘talk’}
  \end{itemize}
- After a palatal in a longer stem: -\textit{ed}
  \begin{itemize}
    \item \textit{pihki-bic-ed-}  \textit{qanemac’-ed-}  \textit{mo-mulic’-ed-}  \text{‘raise neck’ ‘be related’ ‘run in circles’}
  \end{itemize}
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 -\textit{ad} is replaced by -\textbf{uced} after suffixal /d/  
  - typically this is another Durative  
  - yields a Habitual meaning

- Examples with preceding Durative
  
  \begin{itemize}
  
  \item \textit{ci·c’-id-uced-} ‘do’
  \item \textit{da·qac’-ed-uced-} ‘like’
  \item \textit{buwi-cid-uced-} ‘string beads’
  \item \textit{ʔdane-med-uced-} ‘throw away’
  \item \textit{bahnat-\textit{ad}-uced-} ‘ask about’
  
  \end{itemize}
Prosodic size

- “Short stem” forms -cid, -id occur after one syllable
  - modulo extrametricality of first syllable
  - blocked when root is monosyllabic and unprefixied
- After a short stem: -cid, -id
  - (ca-cid-) ‘sit’
  - (bac-id-) ‘grow’
  - <tu>(bic-id-) ‘wake up’
- After a longer stem: -med, -ed
  - (wala)(-med-) ‘go down’
  - <qa>(nema)(c’-ed-) ‘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
Haplology 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
  
  pahyoqʰ-ma-cid-
  cuhtenh-ma-cid-  ‘stir many times’  ‘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 haplology context
Suffix identity

- Some distributions require reference to particular suffixes or lexical items
- Expected -med is optionally replaced by -wad after the Causative -hqa
  
  qaʔdi-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-
    
    nihced-uced-
    
    ‘look’

    *cad-ad-

    nihced-ad-

    ‘say’

• 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 → c’uc → c’ic
    • ced → cec’ → 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-hqa-*med-* ‘one drive (a car)’
    
    *mo-hqa-*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 underlingly /c’/, not derived from /d/
- After a root:
  \begin{itemize}
  \item \textit{di·c’-id-} ‘one tell’
  \item \textit{di·c’-wac’-} ‘several tell’
  \end{itemize}
- After a suffix:
  \begin{itemize}
  \item \textit{muhsam-cic’-ed-} ‘one bounce back’
  \item \textit{muhsam-cic’-wac’-} ‘several bounce back’
  \end{itemize}
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’/
  - \( \textit{di’c’-id-} \) ‘one tell’
  - \( \textit{di’c’-wac’-} \) ‘several tell’

• With underlying /d/
  - \( \textit{cad-uced-} \) ‘one see’
  - \( \textit{cac’-iyic’-} \) ‘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
Proto-Pomo

Western Branch

Southern Group
Kashaya Southern Central Northern Northeastern Eastern Southeastern
Pomoan cognates

• **Proto-Pomo **\textit{*-kid} \ (McLendon 1973)
  
  – Kashaya: Durative \textit{-cid}
  
  – Eastern: Habitual \textit{-kil}, Durative \textit{-l}
  
  – Southeastern: Durative \textit{-l} \ (Moshinsky 1974)

• **Western branch: **\textit{*-adu}
  
  – Kashaya: Durative \textit{-ad}
  
  – Southern: Imperfective \textit{-ad(u)} \ (Walker 2012)
  
  – Central: Imperfective \textit{-ad(u)}, pl. agt. \textit{-ac’i} \ (Mithun 1990)
  
  – Northern: Progressive \textit{-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 $i \sim e$ alternation now
  – related to palatals: roughly $e \rightarrow i / c \_ c$
  – 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


