Dictionaries and texts for all: 
An *Ichishkúin* case study

Virginia Beavert and Sharon Hargus

1-10-15
Outline

• Dictionary
  – Background
  – Design decisions
  – Postscript

• Texts
  – Background
  – Design decision: glossing detail
  – Dissemination plans
Dictionary background

Ititamatpamá (time ball)
Great interest in dictionaries

• Speakers of languages
• Descendants of speakers
• Educators
• Anthropologists
• Linguists
• Others
ask for

all'áwi- (vt), ask for (something)

ask

náwaw- (vt), ask someone to come with or accompany one

attachment

pítkw'ítk- (vt), something put together or stuck together

attack

wátkw'na- (vt), aggression

attack, charge

wátkwna- (vi), attack, charge

attack, fight

tiwi- (n), attack, fight

attain

náwnak'i (vt), achieve

attempt

ináwit (n), try, to endeavor

attend

náktkwanim (adv)

Heritage College

á’a, (n) crow a black bird, native to this area

áan, (n) sun a star that is the source of heat to the earth.

aanpamá, (n) clock, timepiece; an instrument to measure time, minutes, hours.

áay, ( ) hello an initial greeting before introductions; meeting a friend, relative.

ánakw-, (vt) abandon, leave forever

áchaash, (n) eye part of body related to sight.

achaashpamá, (n) eyeglasses; perscription glasses for vision.

áchawiilxw (vt) turn on the light; turn the key to start the motor.

áchabi’in (adj) extended. The car is in all extended and turned.
Competing dictionary projects

• Sharon working on dictionary database in 1990s
• 2004 invited to complete Heritage project
• Initial goals
  – correct mistakes
  – standardize level of detail
  – record accompanying sound files
  – get back to our more analytical dictionary
• Too much overlap, merged projects

Dictionary design decisions for non-linguists

Family of Chief Noah Saluskin. Photo by Asahel Curtis.
Design decisions

• Representing word relationships
• Inclusion of sound files
• Inclusion of images
1. Representing word relationships

• Issues
  – Headword choice
  – Lexical entry structure
Verb structure

• prefixes (infl, der) -- lexical verb -- argument -- aspect -- directional – tense
• lexical verb = possibly bipartite
  – pá- “with the hand or fingers, push with the hand, thrust, wield, push”; cf. ipáp ‘hand, arm’
  – nák- “carry, take”; “with, together with, in company with”

More lexical verbs

- **kúku-** ‘thump’
  - pákuku- - ‘knock’

- **k’ínk** ‘blocking, interrupting’
  - pák’ink- ‘close, cut off, shut, barricade’

- **k’uk**
  - pák’uk- ‘tamp, pack in, compress, consolidate by hand’
## A possible lexical entry

<table>
<thead>
<tr>
<th>Headword</th>
<th>Abstract Gloss</th>
<th>Verbs Derived from Headword</th>
</tr>
</thead>
<tbody>
<tr>
<td>k’uk-</td>
<td>tag pile</td>
<td>cha &gt; k’uk- *rake into pile</td>
</tr>
<tr>
<td></td>
<td></td>
<td>na &gt; k’uk- *gather, *round_up, *herd</td>
</tr>
<tr>
<td></td>
<td></td>
<td>pa &gt; k’uk- *tamp, *pack in, compress, consolidate by hand</td>
</tr>
<tr>
<td></td>
<td></td>
<td>...</td>
</tr>
</tbody>
</table>

**.rt k’uk-**

tag pile

..v cha > k’uk-

.gl *rake into pile

..v na > k’uk-

.gl *gather, *round_up, *herd

..v pa > k’uk-

.gl *tamp, *pack in, compress, consolidate by hand

...
Word-based lexical entry

- **Headword**: .rt pa > k’uk-
- **Verb derived from headword**: ..v pa > k’uk-
- **Gloss of verb**: gl *tamp, *pack in, compress, consolidate by hand
- **Attested derived form of verb**: imper pa > k’uk
- **Rightmost root of verb**: root [k’uk] “pile”
- **Example sentence w/ translation**: 9dex Cha > w wa > awk’a a > pak'uk.
  9deng Don't pack too much in it.
Entry in root index

k’uk “pile”

chák’uk- (v) rake into pile.
ík’uk- (v) pile, heap together.
nák’uk- (v) gather, round up, herd.
pák’uk- (v) tamp, pack in, compress, consolidate by hand.
páwyak’uk- (v) gather, congregate.
sapák’uk- (v) pile, group, gather small objects.
súk’uk- (v) push back, into pile.
shapák’uk- (v) pile, group, gather together.
tinák’uk- (v) kick into pile, pile with foot.
twák’uk- (v) sweep, rake into pile, pile.
twápk’uk- (v) chase together, round up.
wilák’uk- (v) pile, gather by the wind.
wílwík’ukt (n) wind storm.
wíik’uk- (v) pile quickly.
wýák’uk- (v) stop by (for), stop on one’s way, gather as group.
Number of words per lexical entry

• One possibility
  – chíi- ‘drink’
  – chiilá ‘drunkard, alcoholic’
  – chíiman (ACC) ‘these’
  – chíish ‘water, drink’
  – chíit ‘drink, beverage’
  – chiitpamá ‘bar, watering hole, drinking water’
  – ...

Sahaptin-English formatted output

chíi- (v) drink. (hab chíixa, past chíina) — Túnnam átk’ixsha chíit? What do you want to drink? — Chítxawayaw iyúushna. He only paid for the drink. (nothing else)

chíitá (n) drunkard, alcoholic.

chíish (n) water, drink. — Chíishaash chíish. I’m drinking water.

chíit (n) drink, beverage.

chíitpamá (n) bar, watering hole, drinking water. (lit. “for drinking”) — Áw íchíitpamá. Now he’s drunk in the bar.

chíit’a- (v) be thirsty. (lit. “want to drink”) (hab chíit’axa) — Míshnam chíit’asha láamyaw. The alcoholics are thirsty for


pinachiitá (n) drunkard, alcoholic.

shapáchii- (v) make drink, water, put gasoline in. — Washat’uyláma pashapáchii. The cowboys are watering the horses. — Ishapáchiiitasha k’úsi pt’íniks wánay chíitá, horse to water at the river. (lit. “...is making the horse go drink...”) — Túnnam átk’ixsha chíitá?” — Áw cwaay Chíitá. Láamyaw. I’m out of juice.
2. Inclusion of sound files

• Part of Heritage College dictionary design
• Eventually, we decided that all material in dictionary should have accompanying sound. Why?
  – Many people do not catch on to even “practical” writing systems.
  – Writing systems don’t capture all aspects of pronunciation.
Writing system designed by Bruce Rigsby and Alex Saluskin

| i | ii | i | u | uu | p | p’ | t | t’ | ts | ts’ | tl | tl’ | ch | ch’ | k | k’ | kw | kw’ | k | k’ | kw | kw’ |
|---|----|---|---|----|---|----|---|----|----|----|----|----|----|---|---|----|----|---|---|----|----|
| a | aa | s | l | sh | x | xw | x | xw | h |
|     |     | m | n | l | y | w|

Sound files

• Nothing entered in database until audio recorded

...recording for the dictionary at Virginia’s house in Toppenish
Issues with sound files

• Quality control
  – Our “recording studio” behind Virginia’s house
Further issues with sound

• How best to distribute sound with a print dictionary?
  – Our solution: on disk

• Our worry
  – Invitation to retype dictionary (introducing error) and link sound

• Our solution
  – We’ll do it first.
    • http://depts.washington.edu/llc/olr/sahaptin
  – Issue: how much of dictionary to put on web site?
    • Solution: Sahaptin only
3. Images

• How best to convey meaning of some words?
  – *ch’láy* ‘pulverized salmon mixed with steelhead oil’
    (“salmon flour” AS/BR 18; “concentrated powder of dried salmon...boiled with dried roots and water for a high-energy food similar to pemmican...also known as ‘salmon flour’” Schlick)

![Ch’láy (left) and ñatsxi wíwnu (dried huckleberries) on corn husks.](image)
Issues with images

• Color printing or not?
  – UW Press very resistant to idea ($)

shapinchaashpamá (bag for traditional make-up)
Further issues with images

• Captions
• Model release
• Cost
• Quality control in printing
  – .rtf -> .indd
• When to stop?
  – dictionary ≠ cultural encyclopedia

Dictionary postscript

K’ixlí (small tule mat) lying against tules growing in Toppenish Wildlife Refuge
Local reaction to dictionary

• People seem to love it
  – Even non-readers
• Used in language classes

## Ichishkíin Sínwit characteristics

<table>
<thead>
<tr>
<th></th>
<th>2009 published</th>
<th>currently</th>
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</thead>
<tbody>
<tr>
<td>headwords</td>
<td>3,562</td>
<td>4,491</td>
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<tr>
<td>primary lexical items</td>
<td>4,998</td>
<td>6,470</td>
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<tr>
<td>sound files</td>
<td>9,830</td>
<td>12,488</td>
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<tr>
<td>examples (mostly sentences)</td>
<td>4,711</td>
<td>6,322</td>
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<tr>
<td>cross-references to examples</td>
<td>0</td>
<td>1,490</td>
</tr>
<tr>
<td>images</td>
<td>105</td>
<td>158</td>
</tr>
</tbody>
</table>
Griva ca. 1900(?)

Griva, Edward, M., S.J. no date. Yakima Dictionary, Spokane, Microfilmed MSS.
Current issues

• Distribution formats
  – Desired: print, electronic
  – UW Press resistant to electronic publishing

• Linguistic
  – Productivity/predictability of verbal derivation
    • wyá- ‘while walking; continuously’
      – semantically transparent: wyá’ii’ii ‘continuously agree’
      – not semantically transparent: wyák’uk ‘stop by for, stop on one’s way, gather as group’
  – Word division
    • “second position” clitics not always enclitic
    • in texts, possibility of pause before, first position
Texts
Sahaptin text collections

• Translation only
  – “Boas collection”
    – *Anakú Iwachá*

• Transcription and translation
  – Melville Jacobs

• University of Oregon


NW Sahaptin recordings

- Recordings found at Virginia’s house
- Recordings made by Bruce Rigsby
- Recordings provided by Gene Hunn
Ellen Saluskin (Xápt’íniks)

Virginia’s mother at christening of the Yakima (ferry in San Diego)
Alex Saluskin (Wyáwikt)

Virginia’s stepfather, with Party Play recordings made by Bruce Rigsby
Ellen Saluskin, Virginia Beavert, Alex Saluskin

in Toppenish
Mussie Charlie Reynolds (Atiniłá)

Virginia’s maternal aunt
Text statistics

• Hours of recordings: about 62
• Hours worked on to date: about 41
• Pages of IGT prepared to date: 1,758
• Genres
  – histories/recollections
  – descriptions of cultural activities
  – legends
  – Christian sermon
  – opinions (alcohol, who owns the fish, etc.)
  – personal
Interlinear glossed text (IGT) preparation methods

1. free translation (Virginia + Sharon)
2. easy transcription (Sharon)
3. difficult transcription (Virginia + Sharon)
4. glossing, formatting, first proofreading (Sharon)
5. second proofreading (Virginia + Sharon)
6. lexical checking, audio recording of new lexicon (Virginia + Sharon)
7. processing of audio recording, text correcting, adding new lexicon to database (Sharon)
8. (to do: reconcile free translation, word glosses)
Design decision: Word vs. morpheme glossing

Páyu átaw iwá íchi timnanáxt.

Páyu átaw i-wá íchi timnanáx-t.

very important 3.NOM-be PROX.DET recollect-GER

‘This story is very important.’

Páyu átaw iwá íchi timnanáxt.

very important it is this recollection

‘This story is very important.’
Issues with morpheme glossing

• Inaccessible to non-linguist
  – no accountability for free translation
• Time to prepare morpheme vs. word glossing
Sample

• Ellen Saluskin (born ca. 1890) talking about two survivors of the Yakama Indian War (1849)
Washwáshnunash kuunák ák’ínunxana.
=I that used to see him
‘I used to see Washwáshnu.’

Ipñúsha íkushpaynk íchi wánapa, pnishíkni
he’s sleeping along this by river away from house
ipñúsha, tamátł’ümxi ḥaypamáki.
is sleeping covered with saddle blanket
‘He used to sleep by the water, close to the water, covered with a saddle blanket.’

Tamashk’íshyi aníyi íkush kwná púuy
with awning made thus there snow
ixátamak’íksha.
it’s coming down on
‘He had a little awning (dry shack awning) and snow coming down on top of it.’

Ku kwnák xálukt áwsha wasat’áwaas.
and there under his is lying saddle
‘And then his saddle was lying there underneath that awning.’
Ku kwnák ipnúsha átkwaysha kwnák and there he’s sleeping his (long object) is lying there twínpaash.

gun ‘Then he’s lying there sleeping and his gun is lying beside him.’

Ku kwnák awkú ipnúsha láxski and there then he’s sleeping with one little shátayki, łaypamáki tamákw’ski k’iyashpa with blanket with saddle blanket covered on buttocks íchna.
on this ‘Then he’s lying there with just one little blanket over him, covered on his lower body with the old blanket.’

Kuush pa’ína, “cháwnam tún mísh ámyanita. then=me they said not=you anything are to bother his ‘And then they told me, “don’t touch anything of his.’

Íkw’ak áwa nisháykt, íkw’ak Washwáshnu kwnák áak that his is home that there that ipnúnxá ámchnik.
he sleeps outside ‘That’s his home, where he’s sleeping outside.’
Dissemination plans

• Internet distribution via institutional website
  – allows text and sound to be distributed simultaneously

• Personal recordings will be restricted

• When?
Summary

• Beneficial consequences of design decisions for non-linguists
  – Sound files
    • pedagogical uses
    • secure transcription
  – Images: draw user into dictionary
  – Lexeme-base dictionary: root index (more information)
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