Glossing Dene Languages: Issues and Recommendations

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Introduction

Inspired by LGR and Nau and Arkadiev (2015), who have proposed a general framework for the glossing of Baltic languages, we bring up some issues in glossing Dene languages, and provide a rationale for possible solutions.

In this presentation, we focus on issues in morpheme glossing in writing by linguists for linguists. While glossing in works for non-linguists will have different goals and solutions, the principles behind our choices may hold for those works as well.

Principles for glossing - 1

- **Independence**: Any example, along with its gloss, needs to be self-contained so that non-experts (e.g. typologists) can use it without introducing mistakes.

- **Consistency in representation** is a goal at all levels. Labeling and symbolic representation should be consistent within an analysis, and as much as possible, across the discipline.

- **Explicitness**: The analysis should be evident from the gloss.

- **Accessibility**: As our examples will show, maximal glossing is not always the best practice in presenting Dene material. Glossing at word level and at morpheme level may be appropriate in different contexts and to make particular points.
Principles for glossing - 2

● **Standardization**: Conventional description within the linguistics of a particular language family may use terms unfamiliar to general linguistics or to typological standard, and there may be good reasons for this. But the most general standard, external and internal to language family, allowing for correct interpretation should be adhered to. (LGR)

● **Practicality**: Fitting glosses onto pages and making things readable while taking up the least amount of space (including making abbreviations brief, but unambiguous)
Standardization: How do we do it?

(a) Koyukon, Axelrod (1993:74)

daadlekkuł
de + le + le + kkuł
T + M + CL + cough + SML
‘s/he coughed once’

(b) Dëne Sųținé, Wilhelm (2007:37)
héssił
z-é-Ø-s-Ø-zíł
ep-sem-CM-1s-cl-scream
‘I’m going to scream once’

(c) Slave (Rice 2000:266)

ya-h-í-t-La
Preverb-epenthetic-semelfactive
situation aspect-stem
‘s/he jumped (once)’

(d) Navajo, Smith (1991:397)

shéch’id
‘I gave it a single scratch’
(Instantaneous) Perf A: Sem
Levels of detail

Depends on a number of factors:

● Audience (linguists or “community”)
● Item (text collection, teaching tool, example sentence…)
● Researcher focus (morphology, prosody, syntax…)
● …

Thus the same sentence can be represented in many different ways. E.g. in Upper Tanana (taken from the story about the Tailed People):

*Hu'an hu'an k'idahłeeyh tl'aan hekon'dahshyiil.*

‘Put [the wood and grass] into their dens and set fire to it.’
<table>
<thead>
<tr>
<th>Upper Tanana</th>
<th>Word glossing (technical)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hu'an</strong></td>
<td><strong>hu'an</strong></td>
</tr>
<tr>
<td>their dens</td>
<td>their dens</td>
</tr>
<tr>
<td><strong>k'idahłeeyh</strong></td>
<td><strong>tl'aan</strong></td>
</tr>
<tr>
<td>you pl put pl things into hole and</td>
<td>2PL:put.PL.O.into.hole:IPV and</td>
</tr>
<tr>
<td><strong>hekon'dahshyiił.</strong></td>
<td><strong>hekon'dahshyiił.</strong></td>
</tr>
<tr>
<td>you pl hold a fire brand against it</td>
<td>2PL:hold.fire.against:IPV</td>
</tr>
<tr>
<td>‘Put [the wood and grass] into their dens and set fire to it.’</td>
<td>‘Put [the wood and grass] into their dens and set fire to it.’</td>
</tr>
<tr>
<td>Word glossing (non-technical)</td>
<td>Word glossing (technical)</td>
</tr>
</tbody>
</table>
Levels of detail (Upper Tanana)

_Hu'an hu'an k'idahłeeyh tl'aan hekon'dahshyiil._

hu-'an       hu-'an       k’i-d-ah-łeeyh  
3PL.PSR-den  3PL.PSR-den  hole-QUAL-Ø.IPV:2PL.S:Ø-handle.PL.O:IPV  
their dens   their dens   you PL put [things] into holes

_tl’aan    he-kon’-d-ah-shyiil._

and       against-fire-QUAL-Ø.IPV:2PL.S:Ø-push.LRO:IPV
and       you PL hold a firebrand against it

‘Put [the wood and grass] into their holes and set fire to it.’

Discussion

Each format has clear (dis)advantages.

Word gloss (non-technical): (+) conserves space and very easy to read, (-) lacks information (e.g. mode): suitable for text collections, learning materials

Word gloss (technical): (+) conserves space and can be adjusted to show information of interest, (-) lacks some information and is less easy to read: suitable for non-morphology linguistic papers

Morpheme gloss: (+) contains lots of information, (-) consumes lots of space and requires specialized knowledge to read: suitable for discussion of morphology
Morphological glossing

When it comes to full morpheme glosses, we discuss two separate issues:

- Glossing inflectional morphology
- Glossing derivational morphology

This presupposes a neat division between those -- we’ll just pretend that this is possible in Dene languages.
Dealing with fusion

<table>
<thead>
<tr>
<th>Dena’ina</th>
<th>Upper Tanana</th>
</tr>
</thead>
<tbody>
<tr>
<td>shtutghiyuł</td>
<td>statijhaaľ</td>
</tr>
<tr>
<td>shtu-t-gh-i-yuł</td>
<td>sta-t-įį-haał</td>
</tr>
<tr>
<td>‘You SG will go hunting’</td>
<td>‘You SG will go hunting’</td>
</tr>
</tbody>
</table>
Dealing with fusion: Upper Tanana

<table>
<thead>
<tr>
<th></th>
<th>aa-pfv of ch’+l+dzüh/dzia’ ‘dance’</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1sg</td>
<td>ch’agndzia’</td>
<td>ch’-aa-į-agn-dzia’</td>
</tr>
<tr>
<td>2sg</td>
<td>ch’įldzia’</td>
<td>ch’-aa-į-įį-įl-dzia’</td>
</tr>
<tr>
<td>3sg</td>
<td>ch’aldzia’</td>
<td>ch’-aa-į-l-dzia’</td>
</tr>
<tr>
<td>1pl</td>
<td>nts’aldzia’</td>
<td>ch’-ts’-aa-į-l-dzia’</td>
</tr>
<tr>
<td>2pl</td>
<td>ch’aldzia’</td>
<td>ch’-aa-į-ah-l-dzia’</td>
</tr>
<tr>
<td>3pl</td>
<td>ch’haldzia’</td>
<td>ch’-h-aa-į-l-dzia’</td>
</tr>
</tbody>
</table>
Dealing with fusion: Upper Tanana

(a) nts’aldzia’
   n-ch’-ts’-aa-j-l-dzia’
   DSTR-INDF-1PL.S-CNJ-PFV-VV-dance:PFV
   ‘We danced PFV’

(b) nts’aldzia’
    nts’al-dzia’
    DSTR:INDF:1PL.S:aa.PFV:L-dance.PFV
    ‘We danced’

(c) jok-’a’
    ch’-d-u-ak-’a’
    INDF-QUAL-OPT-1SG.S:H-sing.OPT
    ‘I should sing’

(d) jok-’a’
    jok-’a’
    INDF:QUAL:OPT:1SG.S:H-sing.OPT
    ‘I should sing’
Dealing with fusion

Again, we find that it depends on goals. Apart from explicit discussions of Upper Tanana morphophonemics, this “chunking” approach is less distracting to the reader and (slightly) more economical.

An added benefit is that it avoids the issue of unmarked or zero-marked categories.

This chunking approach is explicitly argued for (cf. McDonough 2000, Arppe et al. 2017 and Lovick et al. 2018; a similar approach is taken in Holden 2013).
Derivational glossing issues and recommendations

Degree of semantic transparency

Discontinuity

Positional glosses

Boundaries
<table>
<thead>
<tr>
<th>semantics</th>
<th>format</th>
<th>example</th>
</tr>
</thead>
<tbody>
<tr>
<td>completely predictable</td>
<td>normal</td>
<td>yá-Ø-ľ·gos up-3.IPFV-jump ‘he jumps up’ (491)</td>
</tr>
<tr>
<td>small caps</td>
<td>na-na-s-dher ha here ITER-one.stay-1.IPFV-one.stay FUT ‘I will stay here again’ (443)</td>
<td></td>
</tr>
<tr>
<td>small caps</td>
<td>ye-H-t·tsi 3D-3.PFV-make₁ ‘he made it’ (467)</td>
<td></td>
</tr>
</tbody>
</table>
# Degrees of semantic transparency, cont.

| literal + idiomatic | italics | \textit{eɬ-ta-nɬ-dêɬ}  
|                     |         | \textit{REC-among-3.PFV-many.go}  
|                     |         | ‘they gathered together’ (34)  
| completely unanalyzable | italics, underlining | \textit{jə na-na-s-dher ha}  
|                     |         | here \textit{ITER-one.stay-1.IPV-one.stay FUT}  
|                     |         | ‘I will stay here again’ (443)  

| Italics | “learned parts of verb forms”  
| small caps | abbreviated gloss  
| underlining | “parts of the stem”  

“Morphological idioms”

Tsek’ene

*Ti-tsì#si-gh-n-ii-’q*

*in.water-head-1sO-qual-CNJ-PFV-handle.CO:PFV*

‘s/he criticized me’ (lit. ‘he/she put my head in the water’)

Recommendation: show idiomaticity
Discontinuity

Witsuwit’en

A. repeat the lexical gloss

c’-o-n-i-yïn

UNSP.O-pick.while.stationary-round-IMPF-
pick.while.stationary

‘he/she is picking [berries] while stationary’

Cf. [siyïn] ‘he/she is standing’

B. “special label”

c’-o-n-i-yïn

UNSP.O-thm-round-IMPF-pick.while.stationary

‘he/she is picking [berries] while stationary’

C. repeat abbreviated lexical gloss (Holden 2013)

c’-o-n-i-yïn

UNSP.O-p.w.s.-round-IMPF-pick.while.stationary

‘he/she is picking [berries] while stationary’
Positional vs. semantic glosses

Witsuwit’en d- qualifier

a. Dïncagh
   d-ïn-cagh
   wood-PF-be.big
   ‘it (wood, rope) is big’

b. Tsë dïncagh
   tsë d-ïn-cagh
   rock heavy-PF-be.big
   ‘the heavy rock is big’

c. nec’ïdïlhcot
   ne#c’-d-ï-lh-cot
   ITER-UNSP.O-oral-2sS-V/V-take
   ‘take the lead in singing’

d. s-k‘ë-w-d-ï-l-ts’it
   1sgP-on-AR-qual-cnj-V/V-CO.goes
   ‘I’m sleepy’ (lit. ‘(sleep) fell on me’)

Recommendation: content more important than consistency
Boundaries

Special symbols for

Clf-root (·)

Disjunct-conjunct (#)

Pronominal-qualifier (%)

Witsuwit’en

s-k’ë#w%d-i-l·ts’it

1sP-on-AR-QUAL-CNJ-CO.g-CO.goes

‘I’m sleepy’ (lit. ‘(sleep) fell on me’)

-k’ë#w-d-l-ts’it ‘be sleepy’

Tsek’ene

ti-tsi#O-gh-'a ‘criticize O’
Conclusion

Issue

Semantic transparency
Structural differences
Analytical differences
Terminological differences
Differences in abbreviation

Recommendation

Provide meaning when possible
Celebrate the differences
Continue discussion
Standardize
Standardize
Abbreviatory and terminological differences

Abbreviatory

E.g. imperfective: imp, impv, ipv, ipfv (LGR)

Terminological

Classifier vs. voice/valence
Terminological differences, cont.

Y-

3D (distal, Holden 2013)

4 (4th person, Rice 1989)

3 (3rd person object with 3rd person subject, Hargus 2007)

3>3 (third acting on third, Lovick forthc.)

C’/g’-

Unspecified (Rice 1989)

Indefinite (Holden 2013, others)
We welcome your comments and questions

Comparison chart of glosses

https://docs.google.com/spreadsheets/d/1n35OsHLINxsUdzVpL7c7hnN0slo4eXJMwN2Q_EH5U7k/edit?usp=sharing
Analytical differences

Zero morphemes

Dene Süliné.
ýá-Ø-l·gos
up-3.IPFV-jump
‘he jumps up’ (Holden 2013: 491)

Witsuwit’en
nəqɛdəzət
nə-qε-d-ə-zət
cont-thm-thm-impf-travel
‘...he travels around’ (Hargus 2007: 812)

Analyzeability

jə na-na-s-dher
here ITER-
na-
one.stay-1.IPFV-
one.stay FUT
‘I will stay here again’ (443)