Glossing Dene Languages:
Issues and Recommendations

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Dene Languages Conference, Davis CA
July 6, 2019

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.

Nau, Nicole, and Peter Arkadiev. 2015. 'Towards a standard of glossing Baltic languages: The Salos Glossing Rules.' *Baltic Linguistics* 6:195-241.

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 Sųłiné, Wilhelm (2007:37)

    héssił

    z-é-Ø-s-Ø-ził

    ep-sem-CM-1s-cl-scream

    'I'm going to scream once'

(c) Slave (Rice 2000:266)

    ya-h-í-tła

    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'dahshyiił.

'Put [the wood and grass] into their dens and set fire to it.'

Levels of detail (Upper Tanana)

Hu'an   *hu'an*
their dens   their dens

k'idahłeeyh   *tl'aan*
you pl put pl things into hole   and

hekon'dahshyiił.
you pl hold a fire brand against it

'Put [the wood and grass] into their dens and set fire to it.'

Word glossing (non-technical)

Hu'an   *hu'an*
3PL:dens   3PL:dens

k'idahłeeyh   *tl'aan*
2PL:put.PL.O.into.hole:IPV   and

hekon'dahshyiił.
2PL:hold.fire.against:IPV

'Put [the wood and grass] into their dens and set fire to it.'

Word glossing (technical)

7

Levels of detail (Upper Tanana)

Hu'an hu'an k'idahłeeyh tl'aan hekon'dahshyiił.

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-shyiił.*
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.'

Lovick, Olga. forthcoming. *A Grammar of Upper Tanana*. Lincoln: University of Nebraska Press.

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

Dena'ina

shtutghiyuł

shtu-t-gh-i-yuł
away-INC-CNJ-2SG.S:Ø-SG.go:FUT

'You SG will go hunting'

Upper Tanana

statjjhaał

sta-t-jj-haał
away-INC-CNJ:2SG.S:Ø-SG.go:FUT

'You SG will go hunting'

Dealing with fusion: Upper Tanana

		aa-pfv of ch'+l+dzüh/dzia' 'dance'	
1sg	ch'agndzia'	ch'-aa-į-agn-dzia'	I danced
2sg	ch'įldzia'	ch'-aa-į-įį-l-dzia'	you sg danced
3sg	ch'aldzia'	ch'-aa-į-l-dzia'	s/he danced
1pl	nts'aldzia'	ch'-ts'-aa-į-l-dzia'	we danced
2pl	ch'aldzia'	ch'-aa-į-ah-l-dzia'	you pl danced
3pl	ch'ihaldzia'	ch'-h-aa-į-l-dzia'	they danced

Dealing with fusion: Upper Tanana

(a) nts'aldzia'
   n-ch'-ts'-aa-į-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

Degree of semantic transparency

semantics	format	Holden 2013
completely predictable	normal	yá-∅-l·gos up-3.IPFV-*jump* 'he jumps up' (491)
	small caps	ją na-*na*-s-*dher* ha here ITER-*one.stay*-1.IPFV-*one.stay* FUT 'I will stay here again' (443)
	small caps	ye-H-ł·tsi 3D-3.PFV-*make*$_1$ 'he made it' (467)

Degrees of semantic transparency, cont.

literal + idiomatic	italics	*eɫ-ta*-nį-*déɫ* *REC-among*-3.PFV-*many.go* 'they gathered together' (34)
completely unanalyzable	italics, underlining	ją na-*na*-s-*dher* ha here ITER-<u>*one.stay*</u>-1.IPFV-<u>*one.stay*</u> FUT 'I will stay here again' (443)

Italics	"learned parts of verb forms"
small caps	abbreviated gloss
underlining	"parts of the stem"

Holden, Josh. 2013. *Benasní--I remember: Dene Sųɫiné Oral Histories with Morphological Analysis*. Leiden: Brill.

"Morphological idioms"

Tsek'ene

Ti-tsì#si-gh-n-ii-'ǫ

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'idïlhcot

    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-ï-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-tsì#O-gh-'ą 'criticize O'

Conclusion

Issue	Recommendation
Semantic transparency	Provide meaning when possible
Structural differences	Celebrate the differences
Analytical differences	Continue discussion
Terminological differences	Standardize
Differences in abbreviation	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/1n35Os
HLINxsUdzVpL7c7hnN0slo4eXJMwN2Q_EH5U
7k/edit?usp=sharing

Analytical differences

Zero morphemes

Dene Sųłiné.

yá-*Ø*-*l·gos*

up-3.IPFV-*jump*

'he jumps up' (Holden 2013: 491)

Witsuwit'en

nəqɛdəzət

nə-qɛ-d-ə-zət

cont-thm-thm-impf-travel

'…he travels around' (Hargus 2007: 812)

Analyzability

ją   na-*na*-s-*dher*   ha

here ITER-*one.stay*-1.IPFV-*one.stay* FUT

'I will stay here again' (443)