CCLAS

Chisasibi
Child Language
Acquisition Study

Cree Child Language
Acquisition Study
(CCLAS) www.mun.ca/cclas

July 27th, 2009

First Language Acquisition in Cree:
The Development of Inflection
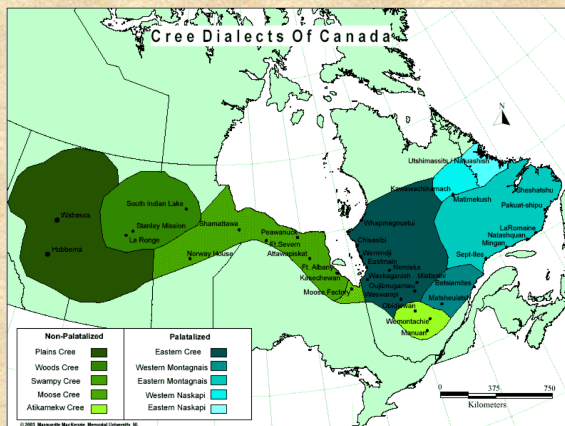(preliminary observations)

Julie Brittain & Kevin Terry

Funding

Social Sciences and Humanities Research
Council (SSHRC) for Canada
- 2004-08 Standard Research Grant
- 2008-11 Standard Research Grant

Cree School Board (James Bay Region)
- 2006-07 funding for Cree-to-English translation

Cree Dialects Of Canada

- Chisasibi population:
  - 3,800 Cree (Cree/English)
  - 200 Inuit (English/Cree; Inuktitut)
  - 300 non-native (French/English)

POLYSYNTHETIC

Âtichinâpihîkinuwishtikwânikiwâu.

"S/he gives him/her the package of the meat from the head
of a caribou that was cleaned out."

âtichinâpih**î**kinuw**i**shtikw**â**n**i**kiw**â**u
upside.downopenpassiveheadtransitivizer3subject/3object

SYLLABICS

ᓂᐳᔂᒼ	ni-pûshî-m	my cat
ᓂᐳᔂᒋᗀ	ni-pûshî-m-ish	my kitty
ᓂᐳᔂᒋᗄᐢ	ni-pûshî-m-ish-inân	our kitty
ᓂᐳᔂᒋᗄᓂᐠ	ni-pûshî-m-ish-inân-ich	our kitties

127 videos made over 30 month
period: 2004 - 07)

In 2004, Group A are 2 years old, Group B are 4 years old.

- A1
- A2
- A3
- B1
- B2
- B3

- Overview of CCLAS methodology and progress
- Overview of Cree inflection
- Preliminary observations on Cree L1 acquisition

2007 to present: Data processing

STEP 1

- SEGMENTATION, using *PHON*.
- This creates, usually, several hundred records per session.
- Each record has detailed information about what the child says.
- Retains access to adult exchanges with child for context.

Phon : A1.A1-2005-03-08-v26 : Session Editor

Media Management

Filename	Last Record	Last Segme...
A1-2005-03-08.mov	253	37:50.513

▶ Play scene

Date/Participants

Session Date: 2005-03-08

Participants

Name	Age
A1	2;1.12

▶ Search Options

Record: 105 Speaker: A1

Orthography
⌊iht=â=yi=u iht=â=yi=u⌋

Morpheme Meaning
⌊be=final=obv=3 be=final=obv=3⌋

Morpheme Type
⌊initial=vai.final=obv=IIN initial=vai.final=obv=IIN⌋

Target Morphology
⌊ˈd=a=j=o ˈd=a=j=o⌋

Actual Morphology
⌊d=a=j=ˈna ˈd=a=j=wa⌋

IPA Target
⌊ˈdajo ˈdajo⌋

IPA Actual
⌊dajˈna ˈdajwa⌋

Translation
is there is there

Notes
Citation form of this verb is "ihtâu" but initial syllable only surfaces in certain environments (eg changed conjunct). Better translation "s/he is present/exists"); JB: no target provided - I copied it from another record with this word in it (KT) This is indeed the target form DB supplies.

Segment
016:32.574 to 016:34.646

< Record: 105 of 254 >   Tier Management

Phon : A1.A1-2006-10-18-v25 : Session Editor

Media Management

Filename	Last Record	Last Segme...
A1-2006-10-18.mov	373	30:12.545

▶ Play scene

Date/Participants

Session Date: 2006-10-18

Participants

Name	Age
A1	3;8.24

▶ Search Options

Record: 1 Speaker: A1

Orthography
⌊mâtiwâ=ish=h⌋

Morpheme Meaning
⌊play=dim=2s⌋

Morpheme Type
⌊vai=dim=IMP⌋

Target Morphology
⌊mædˈwʌ=ʃ=(h)⌋

Actual Morphology
⌊nəˈda=tʃə=Ø⌋

IPA Target
⌊mædˈwʌʃ⌋

IPA Actual
⌊nəˈdatʃə⌋

Translation
play

Notes
(KT) The interlocutor has just asked 'Why don't you play?' in Cree.

Segment
000:08.875 to 000:11.331

< Record: of 374 >   Tier Management

Phon : A1.A1-2006-10-18-v25 : Session Editor

Media Management

Filename	Last Record	Last Segme...
A1-2006-10-18.mov	373	30:12.545

▶ Play scene

Date/Participants

Session Date: 2006-10-18

Participants

Name	Age
A1	3;8.24

▶ Search Options

Record: 7 Speaker: A1

Orthography
⌊tân kâ=itwâ=htih=ch⌋

Morpheme Meaning
⌊what that=make.certain.noise=final=3s⌋

Morpheme Type
⌊p,quest pvb.IC=vii.final=CIN⌋

Target Morphology
⌊dan ge=ˈdɑ=dɪ=tʃ⌋

Actual Morphology
⌊dɛm bə=ˈɹɑ=pɪ=d⌋
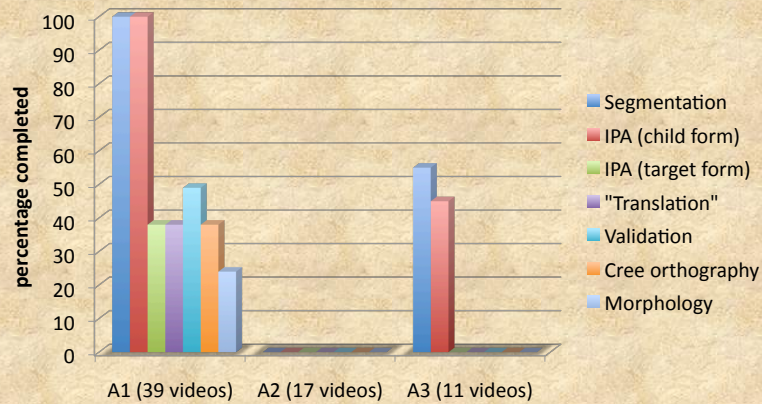
IPA Target
⌊ˈdan ˈgedɑdɪtʃ⌋

IPA Actual
⌊dɛmbəˈɹɑpɪd⌋

Translation
what is making that noise?

Notes
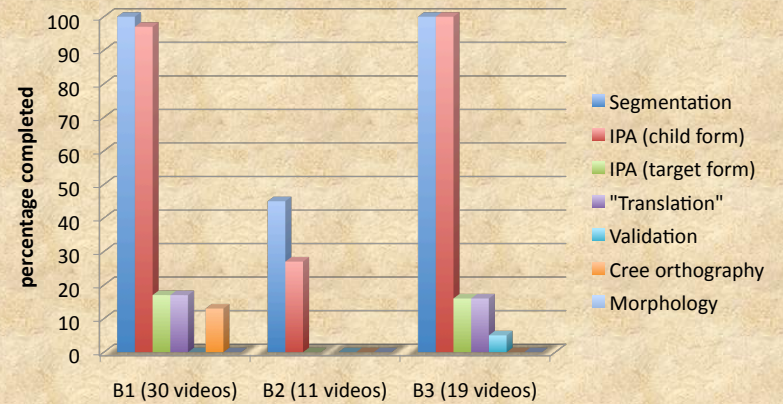(E) Not sure if this is a /v/; MM: this is an n-stem verb, iitwaahtin,and the n > h before =ch
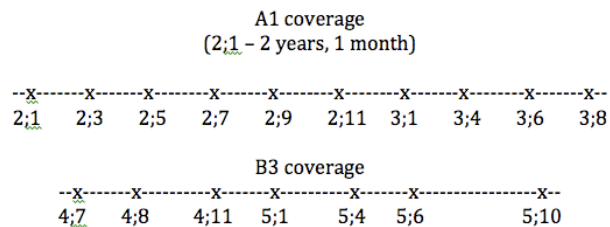
Segment
000:45.799 to 000:49.508

< Record: 7 of 374 >   Tier Management

GROUP A (2 - 4 ½ years)

Bar chart — y-axis: percentage completed (0–100). x-axis: A1 (39 videos), A2 (17 videos), A3 (11 videos).
Legend: Segmentation, IPA (child form), IPA (target form), "Translation", Validation, Cree orthography, Morphology

GROUP B (4 - 6½ years)

Bar chart — y-axis: percentage completed (0–100). x-axis: B1 (30 videos), B2 (11 videos), B3 (19 videos).
Legend: Segmentation, IPA (child form), IPA (target form), "Translation", Validation, Cree orthography, Morphology

What we have …

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                  A1 coverage
              (2;1 – 2 years, 1 month)

--x------x-------x--------x------x-------x-------x------x-------x-------x--
2;1     2;3    2;5     2;7    2;9   2;11    3;1    3;4    3;6    3;8

                  B3 coverage

--x-------x-------x-------x-------x-------x-------x----------------x--
4;7     4;8    4;11    5;1    5;4    5;6                     5;10
```

Cree inflection

3 syntactic categories traditionally recognized (Bloomfieldian tradition):

- verb, noun, "particle" (morphological classification)
- Oxford 2008: adnominal particles (adjectives and quantifiers), prepositions, adverbs, focus particles, question particles, negators, conjunctions, and interjections.

Verbal morphology

3 "orders"

- Independent order (declarative main clause)
- Conjunct order (wh-clauses, subordinate clauses)
- Imperative order

Independent Order

chinikimun
 chi- nikimu -n
 2   sing(AI) Subj:non.3.indicative
 'You.sg sing/are singing.'

- AI (animate intransitive); II (inanimate intransitive); TA (transitive animate); TI (transitive inanimate)

Conjunct Order
 aa-nikimuyin
 aa-   nikimu-yin
 preverb sing(AI)   Subj:1.sg.indicative
 '… when you.sg sing/are singing.'

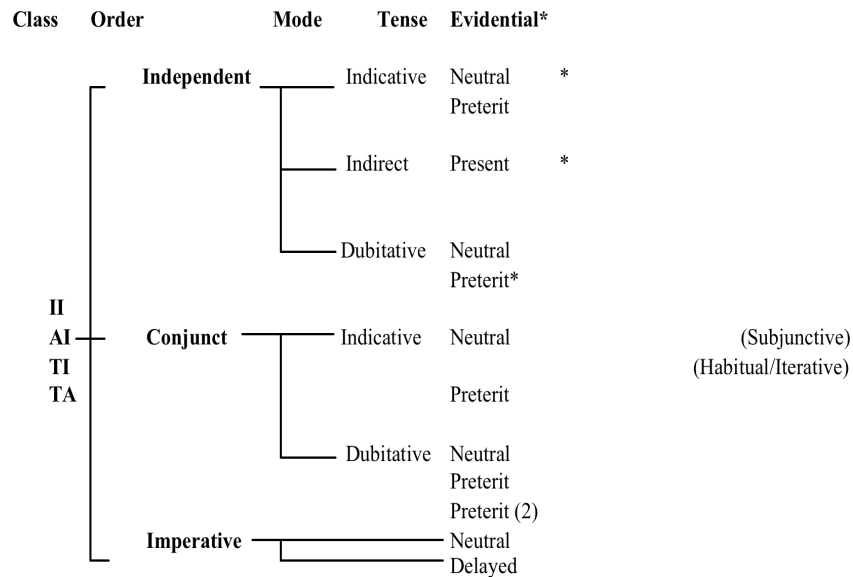- Inflection is less transparent in Conjunct than in Independent.

Imperative Order

 nikimuh
 nikimu   (-h)
 sing(AI)   S:2sg
 'Sing!'

Verb morphology chart

Class	Order	Mode	Tense	Evidential*
	Independent	Indicative	Neutral / Preterit	*
		Indirect	Present	*
		Dubitative	Neutral / Preterit*	
II / AI / TI / TA	**Conjunct**	Indicative	Neutral / Preterit	(Subjunctive) / (Habitual/Iterative)
		Dubitative	Neutral / Preterit / Preterit (2)	
	Imperative		Neutral / Delayed	

What might we expect? (frequency of forms in input yet to be determined)

In early productions …

- higher number of intransitive forms (TA forms might be especially harder to learn – Person/ Gender hierarchy to be figured out)
- Independent order – morphology more transparent (and resembles nominal morphology)
- Conjunct order – high frequency (wh-questions)
- Imperative order – high frequency + 2s form = bare root

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orial University of Newfoundlan

2005-03-08 (age 2;1): 22 verb productions attempted

VERB MEANING/TYPE	CREE (CITATION FORM)	NUMBER OF OCCURRENCES IN SESSION
Animate Intransitive (AI)		**15**
'be' (locative)	ihtaau	7
'do'	ihtiu	1
'cry'	maatuu	3
'say'	itaau	1
'eat'	naanaa ("baby form")	3
Inanimate Intransitive (II)		**0**
Transitive Animate (TA)		**1**
'have it (animate)'	iyâwâu	1
Transitive Inanimate		**6**
'see it / look at it (inanimate)'	waapihtim	1
'open it (inanimate)'	aapiham	2
'close it (inanimate)'	chipiham	3

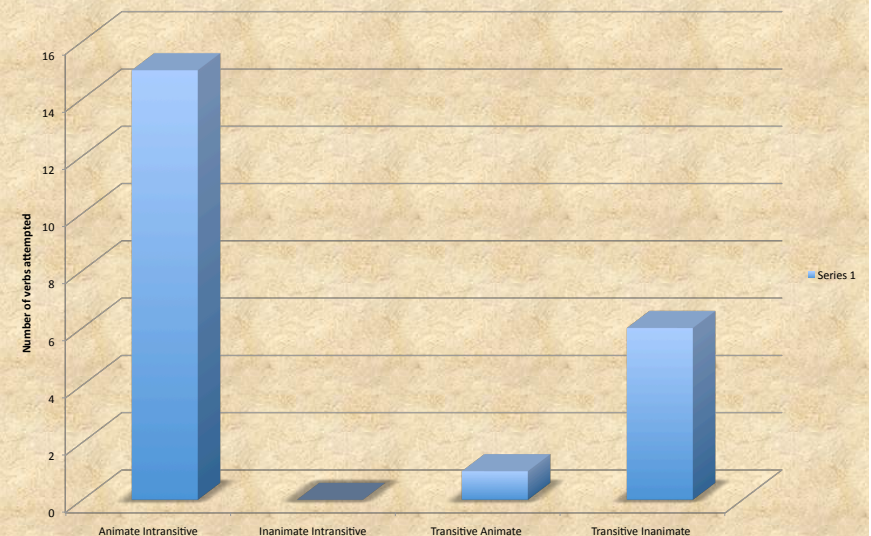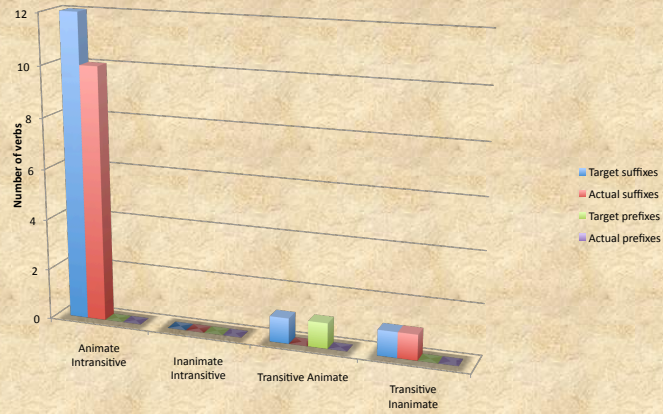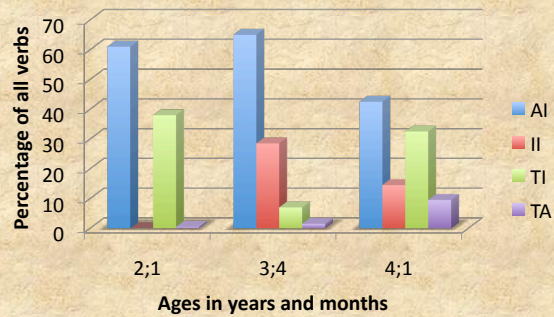CHART 1: Attempted verb productions (age 2;1)
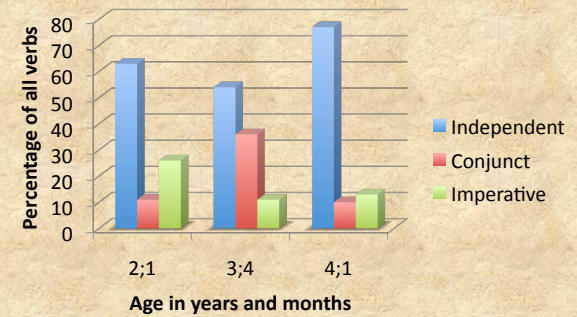
CHART 2: Details of inflection (2;1)

- AI verbs: child is getting most of the inflectional suffixes (mostly person); no prefixes in target (either Independent 3rd person forms, or Conjunct)
- II verbs: none
- TA verbs: child fails to produce inflection (no suffixes or prefixes)
- TI verbs: child produces all the suffixes (there are no prefixes)
- AI and TI may be acquired earlier?

Child A1: Transitivity of verbs

Child A1: Order of verbs

Research completed, underway

Swain 2008, "The Acquisition of Stress in Northern East Cree: A Case Study" (MA thesis)

- based on longitudinal case study of A1 (aged 2;02 to 4;01)
- pitch is the primary cue for marking stress in NE Cree; Swain argues that A1 is able to use this cue from the first session (acoustic analysis shows A1 uses an increase in pitch on stressed syllables)
- Further, argues that A1 has already acquired all but one of the relevant metrical parameter (extrametricality)
- settings for NE Cree acquired early (by 2;1); theoretically significant in light of claims that children are born with a universal set of default metrical parameter settings, thus supporting a neutral start in the acquisition of stress.

Oxford 2007: **Development of the NEC pronoun/ demonstrative inventory (A1 data)**

See Algonquian conference handout (2007). Preliminary generalizations – sequences of acquisition:

- *Non-adverbial demonstratives:* Prox Sg > Inan Obv Sg, Anim Prox Pl > Inan Prox Pl
- *Adverbial demonstratives*: Extended > Restricted

Kevin Terry (MA), ongoing, the development of verbal inflection, a Case study (A1 age 2;1 to 4;1).

- Caregiver speech ("baby forms", intonational patterns; non-target-like (over)use of pronouns)
- Perceptual vs. morphological salience

Child produces stressed syllables (final syllable in disyllabic forms)

Two syllables in target, one syllable produced

chipiha 'close it'
    Adult: [tsəba]
    Child A1:   [ba]

mâtû 's/he is crying'
    Adult: [mæˈdo]
    Child A1:   [dʌ]

Nominals

- A high proportion of A1's nouns are English; none of her verbal productions are. English nouns are sometimes inflected with Cree morphology (also found in target language).

Our current interests

- Development of inflectional morphology in general.
- W.r.t nominals: number, gender; obviative/proximate distinction; possession; verbal morphology (preterit suffix)
- W.r.t verbs, how is the development of argument-referencing morphology related to the target-like use of DPs?
- What about: transitivity; orders; conceptual complexity; morphological typology; frequency of forms in target language?

References

- Oxford, Will. 2008. *A grammatical study of Innu-aimun particles. In the series Memoir 20. Winnipeg: Algonquian and Iroquoian Linguistics.*