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CID : Software for analysis of Anishinaabemowin texts and recordings

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This is a preliminary report on a software application called CID that is under development for computational language documentation and description (whence the name), with intended extensions in language instruction, language technology, and linguistic studies. As a design strategy, the software is being developed concurrently with its use in analyzing and annotating texts and recordings in Anishinaabemowin.

The software can run either on one's personal computer or at a remote location (as a CGI script or as a standalone web server). The software is open source and freely available from the author's website.

The current implementation covers only the essentials of audio and text entry and annotation. It will present the editing interfaces or panels that constitute the application by walking through the typical work-flow. The panels correspond to numbered items in the following.

Audio transcription. (1) One can provide a digital audio recording, and CID will automatically divide it into snippets, finding a heuristic balance between the lengths of the snippets and the appropriateness of the cutpoints: snippets are roughly 5-15 syllables (1-2 seconds) long and cutpoints represent energy minima of significant duration (at least 100 ms). (2) A panel is provided for listening to and transcribing snippets.

Text and translation. The concatenated snippet transcriptions represent a written text. (3) A panel is also provided to input texts directly, in case the original material is written rather than spoken. A text may be divided into translation units for convenience of analysis. Sentence-sized units are typical, though the user may choose any size that is convenient. There is no assumption that translation unit boundaries fall at transcription-snippet boundaries: translation unit boundaries are explicitly indicated in snippets and may fall anywhere. (4) There is a panel in which one can provide an English rendering for each translation unit.

Orthography and tokenization. Standard Anishinaabemowin orthographies consist entirely of ASCII characters, but there are a few exceptions, such as the orthography used by Jones (1917). In lieu of defining keyboards for different orthographies, text is entered using an ASCII romanization, with subsequent display in Unicode. Tokenization is kept simple. In the Unicode rendering, tokens are split at whitespace and leading and trailing punctuation is stripped. A run-on token is dealt with by treating it as a morphologically complex form that is broken into its constituents in the lexicon.

Interlinear glossed text (G T). (5) One may select a translation unit and edit it in a panel that displays the text, English glosses in interlinear format, and the translation.

Morphology and lexicon. (6) If one selects a word in the G T panel, lexical information is displayed in a separate panel. The lexical information includes entries for each sense of the word and lists of words that are similar to the selected word, using soft partial matching on both the form and the gloss. The concepts of lexical entry and morphology are used very loosely; we assign a lexical entry to every form that occurs in the text, including fully inflected forms, and morphology as we use it encompasses any way that a form consists of multiple parts, including contractions or run-together tokens. Each of the parts also receives its own lexical entry. (7) One can select a displayed lexical item and edit its entry. One can provide a morphological analysis. One can also specify that the form is a variant of a different "canonical" form. Anything that can affect the appearance of a word is encompassed under variant, such as dialectal differences, orthographic differences, or simple misspellings. Back-links are automatically generated from the parts in a morphological analysis to the whole, and from the canonical form to its variants.

Search and concordance. (8) A panel is provided in which one can search for an arbitrary lexical entry either by its Anishinaabemowin form or English gloss. (9) Given a lexical entry, one can also get a list of links to all locations where it occurs in text (that is, a concordance).

Planned components. A number of other components are partially implemented but not yet integrated. They include a drill component for language instruction, automated morphological analysis, and a grammatical component that supports treebanking and parsing, with intended extensions to machine translation.

# Learning About Cultural Priorities for Child Language Development in a First Nation: Qualitative Interviews with James Bay Cree Parents and Elders

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One issue that is receiving increasing attention in the field of speech-language pathology (SLP) is the importance of providing culturally appropriate SLP services to Indigenous communities. Of course, SLPs cannot adapt their services to meet the needs of a First Nations community without first learning about the culture and needs of that community. Given that the vast majority of SLPs in Canada and the United States are not Aboriginal, this knowledge about culture and community priorities has to be sought. A crucial first step to adapting SLP services is asking the community for input, especially with regard to identifying local needs and priorities, as this is one way in which SLPs can mitigate the cross-cultural and colonial context of their practice (see, for example, Ball & Lewis, 2014; Erks-Brophy, 2014; Garoutte, 2003; Jonk & Enns, 2009; Pesco, 2014; Tuhivai-Smith, 1999).

In this paper, I present the results of an analysis of ten open-ended interviews conducted in a James Bay Cree First Nation about typical child language development, the practice of speech-language pathology in the community, language preferences, and special needs and intervention. By applying thematic analysis (Boyatzis, 1998) I identify six themes that emerge from the interviews: (i) Children learn through interaction and imitation; (ii) There have been gaps in advocacy, awareness, and services for special needs; (iii) Cree identity is vital; (iv) Increase in available services for special needs is a positive thing, and could be even better; (v) Navigating bilingualism is crucial and of concern; and (vi) Cree language and cultural knowledge are changing. For each theme, I discuss implications for culturally sustaining SLP services in this First Nation.

I conclude with a discussion of some of the challenges facing non-Indigenous SLPs (and, by extension, healthcare workers in general) who are working with Indigenous clients: most significantly, the limited time that most practicing SLPs have to devote to this kind of cultural learning. I suggest some potential options to mitigate this challenge, with the collaborative design of this study being only one example of how to move forward.

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## Computational modeling of the derivational morphology of Plains Cree verb stems

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Plains Cree stem derivation involves three subclasses of morphemes, initial or root morphemes, medial morphemes, and final morphemes. A stem usually involves an initial root morpheme; roots are generally not restricted to use in certain stem classes and so may often occur in nouns, verbs, and particles, though some roots are more restricted. Roots are followed by optional medial suffixes, which often occur with more concrete meanings and, like roots, are often not restricted to particular stem classes; for example, *âpisk(w)* 'metal' can be used in nouns, as in *pîw apisk* 'piece of metal' and in verbs, as in *kipâpiskaham* 'he closes it with metal, locks it'. Final suffixes are more restricted and are used to determine the class of a stem and, in verbs, the subclass of the verb: transitive, intransitive, animate, inanimate. The concatenation of a root, an optional medial, and a final morpheme constitutes a primary stem. This primary stem may then undergo further derivation, followed by an optional medial and a final morpheme, creating a secondary stem, which may also undergo further derivation (Wolffart, 1973, 1996).

While the modeling of inflectional morphology has resulted in a set of morphophonemic rules that can often be applied to Cree derivation, there are some other changes that are relevant to the modeling of derivational morphology. For example, *i* is inserted between two consonants and word-final *Cw* becomes only *C*. An understanding of historical environments is also needed; for example, *t* may be palatalized to either *c* or *s* before *i*, or may remain unchanged. The conditioning factors have been obscured by sound change: *t* may be a reflex of either *\*θ* or *\*t*, and *i* may be a reflex of either *\*i* or *\*e*, which dictate the now unpredictable alternations (Wolffart, 1996).

The lexical database underlying Wolffengrey (2001) presents an exhaustive derivational decomposition for some 10,363 verbs, consisting of combinations of 1784 unique initial-like morphemic elements, 308 medial-like elements, and 457 final-like elements. This information together with the above morphophonemic rules can be used to create a general computational model as a finite-state transducer (Lindén et al. 2011) of how the derivational morphemes can be concatenated to form contemporary Plains Cree verb stems. What is more, we can further use the pairings of stems and their derivational decompositions provided in Wolffengrey (2001) as training data in order to weight all the morpheme sequences in the finite-state transducer as to their likelihood of occurrence (Mohri 1997; Pirinen 2014). As a result, this model can be used to provide all the possible derivational analyses of verb stems, which are ranked as to the overall likelihood of their constituent morpheme sequences, as well as generate the resultant stem form for any given allowable derivational morpheme sequence.

In this paper, we will explore how this computational model can be used as an exploratory tool in the derivational analysis of previously undocumented Cree verb stems. Such a derivational computational model could also be incorporated as a "guesser" within a general morphological analyzer to provide possible analyses for potentially grammatical words for which the full stem is lacking from the lexicon, which could substantially extend the coverage of such analyzers.

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# The Robustness of Blackfoot's Proximate and Obviative Inflection

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"I always tell them it's there, but you don't sound it. The -wa is there, but it's silent. You can't leave it out." – Kinómo'tstaan Noreen Breaker, Siksiká

In contexts of language endangerment, generational variation is often reported, whereby younger speakers use a different variety than older speakers, marked by a loss of grammatical complexity. Blackfoot is a canonical example; "new Blackfoot" is distinguished from "old Blackfoot," with speakers of the new variety reportedly missing certain inflections from their grammar (Chatsis et al. 2013; Kaneko 1999).

Of particular interest in this paper are the proximate and obviative suffixes *-(w)a* and *-(y)i*. At least in old Blackfoot, these suffixes are ubiquitous, often appearing at the word edge, a position in which they undergo a regular process of devoicing. As a result of this devoicing (coupled with a regular process of glide deletion following consonants), the suffixes are "rarely audible," and susceptible to omission (Frantz 2009). In other Algonquian languages, obviation inflection is also reportedly omitted by younger speakers (Artuso 1998; Genier-Mitenko 2001). Are the proximate and obviative suffixes disappearing from Blackfoot? What variation is there across speakers in the expression of obviation inflection?

Gick et al. (2012) report on the phonetic properties of *-(w)a* and *-(y)i* for a single speaker of the Siksiká dialect who falls in the age range of old Blackfoot. Using a combination of ultrasound, video, and audio recordings, they demonstrate that for this speaker, the suffixes are "soundless" in word-final position; they are articulated but without any accompanying acoustic signal. Expanding on Gick et al.'s study and employing similar methods, we investigated the phonetic properties of the proximate and obviative suffixes of five additional speakers. Similar to Gick et al.'s findings, our results indicate that the suffixes are articulatorily but not acoustically distinguished for some speakers in some phonological contexts. For others, the same suffixes are "ghosts" (Szyra 1992), neither articulatorily nor acoustically realized, but nevertheless phonologically active, as evidenced by their capacity to trigger regular phonological processes (see also Frantz 2009:9). These two patterns cross-cut ages and dialects. Notably missing from our sample is a speaker for whom the suffixes are altogether absent from the grammar.

The observation that all speakers in our study preserve the suffixes suggests that obviation remains a robust and salient feature in Blackfoot. It plays a major organizational role in the grammar (Bliss 2013) and is important for artistic expression (Thomason 2015). However, obviation can be challenging for learners, as its phonetic realization is often audibly weak (soundless or ghost vowels). Our study has a practical application, insofar as it can help inform teaching about obviation by shedding light on the pronunciation of proximate and obviative morphology.

## Semantic considerations on lexical passives in Innu

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In the Innu language, an Algonquian language spoken in Québec, lexical passives have been recently documented by Drapeau (2012). According to the author, lexical passives are opposed to simple derived passives in that they are lexically restricted and have stative meaning. However, the specific morphological and semantic patterns of this type of passive have not been thoroughly investigated. By first taking their morphological realization into account, the present study examines lexical passive forms in light of their semantic function in the language. Based on around 50 of these lexical passives, the present work identifies their different morphological forms and focuses on third person passive forms (PT) of transitive animate (TA) and transitive inanimate (TI) Innu verbs. Some of them show, for instance, the ability to have both an active meaning, as illustrated in (1), as well as a stative meaning, as shown in (2):

Mamatishakanu uiash mamatishakaniw uiash to\_slice\_into\_pieces.TIPT-3 meat 'The meat is being sliced into pieces.'

Mamatishakanu uiash mamatishakaniw uiash to\_slice\_into\_pieces.TIPT-3 meat 'The meat is sliced into pieces.'

Consequently, it is argued that transitive passive suffixes in Innu can be considered as aspectual morphological markers. To conclude, semantic changes that affect passive suffixes in Innu entail conceptual changes on the inner temporal constituency of the verbal form investigated.

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# Towards a renewed understanding of Cree-Innu-Naskapi dialectology: an analysis of phonological, lexical and grammatical isoglosses in the Algonquian Linguistic Atlas

Chantal Cenerini

The Algonquian Linguistic Atlas, a collaborative project started in 2005 (Junker et al. 2005), is an online multimedia linguistic atlas of Algonquian languages in Canada. It includes data primarily from the Cree-Innu-Naskapi continuum, but also from Mikmaw, dialects of Ojibwe, Blackfoot, Algonquin, Michif, Ojicree, and Maliseet. This project presents a unique and valuable opportunity to conduct a bottom-up study of dialectal boundaries in Cree-Innu-Naskapi and their degree of relatedness to neighboring Algonquian languages. The diffusion of innovations is often halted by language-internal boundaries, or isoglosses (Haas 2010): the main purpose of our research is, therefore, to investigate the phenomenon of diffusion by studying the coincidence of phonological, lexical, grammatical, syntactic and semantic isoglosses drawn from the Atlas data and compare patterns of occurrence and distribution of linguistic items.

As the study of diffusion requires the comparison of isoglosses in at least two points in time, we will conduct a comparative study namely between the Atlas' corpus and previous research such as Béland 1978; Pentland 1979; MacKenzie 1980 and Valentine 1995.

Findings to be discussed in the paper include the isogloss bundle at the boundary between dialects of Cree-Innu-Naskapi which undergo palatalization and those who do not (also attested in MacKenzie 1980). In effect, the palatalization boundary is at least supported in the Atlas by a lexical isogloss for the numbertine (all palatalized varieties use variants of *peyakushteu*) and a morphological isogloss for the order of suffixes in 'possessive' and 'diminutive': in grandchild, *-is* precedes *-in* in palatalized varieties (as in *nicawâsism*) and *-in* precedes *-is* (as in *nicawâsismis*).

Furthermore, Drapeau (1979) and MacKenzie (1980) noted that the recent sound change of /j/ to /h/ primarily affected northern and western speakers of Innu: data from the Atlas shows that it is still the case today but that this change also applies to Ojicree speakers, a Western dialect. Lexical isoglosses drawn from Atlas data (such as *it is Monday, it is Saturday, it is cold, hospital, light*) moreover support a boundary between Northern and Southern Plains Cree, which was previously identified based on the Northern Plains Cree merger of long vowels /e:/ and /i:/ (Wolff & Carroll 1973).

There is, also, for instance, an isogloss bundle at the Manitoba-Ontario border of Canada: west of the border, the variant *têpakohp* 'seven' is used, while *niishwâashch* occurs east. The variants *mishtôkâkay* 'coat' and *kâyas* 'long ago' also occur only west of the boundary. In the case of the construction 'to hunt (an animal)', speakers did not use noun incorporation, with the exception of one North West woodland community, in Western dialects.

Finally, Attikamek, Algonquin, Anishnabemowin, Ojicree and Moose Cree are separated from other neighboring dialects and languages by coinciding lexical isoglosses. As we further our research, we will look to establish whether or not this lexical bundle corresponds to other phonological, morphological or syntactic linguistic boundaries.

As the combination of features within a boundary provides much more convincing evidence for dialects than a classification defined by single phonological features, we will show overlaying maps showcasing the coincidence of these isoglosses

and other linguistic boundaries. These findings will pave the way to a deeper understanding of dialectal variation in Algonquian and become a useful tool for communities working towards the revitalization and promotion of their languages.

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## Paradigm Levelling in the South East Cree Conjoint Transitive Animate Inflections

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It is a well-known phenomenon that there is in Cree and Ojibwa (see Valentine, 2011 pp. 278-279) two alternate sets of paradigms for the conjoint transitive animate verbs. The archaic set uses fused morphology and is opaque, while the innovative set is transparent since it displays agglutination of binique morphemes which are ordered by analogy with the morpheme order of the independent conjugation. In Plains Cree the innovative paradigm has completely replaced the archaic one (Dahlstrom, 1989) in the second half of the 19<sup>th</sup> century, while in Moose Cree both the transparent (inverse) and opaque (direct) sets are used (Brousseau et al. 2015). In this talk I will present new data on South East Cree which indicate that a shift — from the opaque/archaic set to the transparent/innovative one — is taking place, at least in the oral language. The tendency is age-graded: a) older monolingual Cree speakers know and use both sets (although occurrences of -iyam iht "us-exclusive < him" are very rare); b) middle-age speakers use almost exclusively a mixed set (some of them keeping only one archaic inflection, -ac iht "us-exclusive > him"); c) younger speakers and children have replaced the archaic paradigm by the innovative one. Following the work of Kusters (2003) on the influence of social changes on verbal inflections, I suggest that the switch from opaque to transparent inflections may be explained by a gradual sociohistorical complexification of the Cree speech communities which started in the 19<sup>th</sup> century (e.g. missionaries, translators and proliferation of religious writing; emergence of mixed communities due to epidemics; residential school and the increasing use of English).

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## Nishnaabemw in revitalization through a cultural studies lens

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Gunaratnam (2003) writes of a "doubled" research practice... in which researchers need to work both with and against racial categories... [a] central tension... whilst also finding ways of identifying and disrupting the ways in which these same categories can essentialize race" (p. 29). I will do an analysis of the discourse concerning Indigenous languages that prevails in the Indigenous academic and the First Nations communities as it relates to the revitalization of Nishnaabemw in. My analysis will draw on concepts from cultural studies, a field of study that in Barker's (2005) words is "an interdisciplinary field... [that] examines the relations of culture and power... [and] seeks to explore the connection between [various] forms of power and to develop ways of thinking about culture and power that can be utilized by agents in the pursuit of change" (p. 7). I will explore the role of colonization and marginalization in creating "the driving impetus to categorize... even the thoughts of individuals and groups in relation to 'race'" (Gunaratnam, p. 29) that is apparent in the ways in which Nishnaabemw is now being used and beliefs about its nature.

## 'Rounding dissimilation' in Miami-Illinois

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'Rounding dissimilation' is the name for a sound change in Miami-Illinois already seen in the late seventeenth century records of the language. Rounding dissimilation is a process whereby Proto-Algonquian \*o (and sometimes \*wa) changes to Miami-Illinois a in weak syllables preceding labials or Cw clusters. The effects of this rule have been disturbed by analogy and paradigmatic levelling, and even in the oldest records the process is not entirely regular. In my previous work on Miami-Illinois, I have anecdotally mentioned forms that undergo this rule, but I have never before examined the rule systematically, giving all the forms affected by it. In this paper I will lay out the exact conditioning of rounding dissimilation, showing the numerous forms that undergo paradigmatic alternations due to the rule, which forms have been reshaped, and which forms have failed to undergo the rule.

## Embedded questions in M eskw aki: syntax and information structure

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M eskw aki is unusual in the Algonquian family in its formation of embedded questions. This paper describes their syntax, investigates their relationship to formally similar evidentials and a sub-class of relative clauses, and explores the information structure relations of topic and focus as realized in embedded questions.

Sister languages such as N ishnaabemwin (Valentine 2001:990) and M enominee (Johnson and Macaulay 2015:369) display independent question words in both matrix and embedded questions:

(1) W anda gkenim [aaniin naa endshiw aad giwi eyaa jig wadi].  
go.&.find.out.2s>3 how asm.any.as.they.were those.who.were.there.there  
'Go find out [how many of them there are over there].'

(2) 'S aw kocēm onakeh [w āēk iq cew āw ek eneh nayōhtah].  
aor.irrask.ta.1p>3conj.w.hat.epis.be.ii.0conj.that.inan.carry.on.back.ti.3>0conj  
'We will ask him [what it is that he carries on his back].'

In M eskw aki, on the other hand, embedded questions are expressed with a special inflected form of the verb, the interrogative participle, and no independent question word:

(3) e'hpw a'w i-kehke'nem a'či [w ihasem iha'kw e'hini]  
aor.not-know.3>3'/aor.fut.hep.3>3'/intpart/3'  
'He (prox) didn't know whom (obv) he (prox) should help.' (Michelson 1930:118)

The final suffix *-ini* on the verb of the complement clause identifies the element questioned as 3rd person obviative singular, which is the object of the verb 'help.'

Interrogative participles also have evidential functions and are used as relative clauses if the existence of the referent is not presupposed:

(4) ne'sa'kw e'na [whoever kills him' [if anyone]]  
kill.3-3'/intpart/3

The paper explicates the unifying semantics of the interrogative inflection's use for questions, evidentials and relative clauses in M eskw aki, and contrasts the information structure relation of focus in matrix questions with that found in embedded questions, where no independent word can be identified as occupying a focus position.

## Finding Better Ways to Teach Grammar: A Community-Linguist Partnership in the MiamiNation

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Linguists have long been creating world-class materials describing the grammars of Algonquian languages. Increasingly, linguists are paying attention to the needs of community members and striving to create materials that better serve community language revitalization groups. Our experiences creating language-teaching materials for the MiamiNation of Indians of Indiana have taught us that there is a need for a true paradigm shift in the teaching of Algonquian grammars.

First, we argue that teaching grammar is important, particularly in the context of language reclamation (by which we mean a community in which there are no fluent native speakers). We have been working together to address the frustration of community members who celebrate the creation of linguistic materials on their language, though are frustrated when they are not capable of using materials designed for linguists. Our goal is to support the re-creation of a living community of speakers by giving community members skills to speak their minds— to create original sentences, original songs, original prayers, original jokes: language that is necessary for a community of speakers to flourish. For this we believe that an understanding of grammar and an ability to use dictionary and grammar resources is vital.

One obvious barrier to community learners is the usage of grammatical jargon. We have found that teaching the structure of a language grammar by replacing jargon with “friendlier” language is not a sufficient bridge to community learners. This approach assumes that the linguistic idea around the grammar is the important part, which, apologies to linguists, is not true. We argue that the kernel of teaching from which we create a lesson is not new grammatical knowledge, but new word-building and sentence-building skills.

Another barrier to community learners arises from the experience of learning within a reclamation context. Given that our linguistic knowledge of grammar is shifting and developing, and that communities of speakers are choosing and establishing a modern style of speech, community learners may find themselves on unstable ground and may question the validity of the knowledge that they bring to the table. We find that addressing questions about this shifting ground is extraordinarily important, and that we need to acknowledge and affirm the ways that learners have been taught and have heard their Elders speak. We find that we need to give learners skills to make choices when they have more than one option for expressing their ideas. This goes beyond teaching grammar to teaching decision-making in their context as learners.

We argue that teaching grammar is a necessary (though not sufficient) component to the creation of a vibrant speaking community. To do so requires rethinking how lessons are structured from the perspective of community learners. This approach may be jarring to a linguistic model of teaching grammar because it shifts the logic behind teaching grammar from understanding grammatical constructions to articulating original ideas.

## The morpheme *eke* in M i'km aq: A light verb, not a detransitivizing final

Barbara Sylbooy, Elizabeth Paul, Serge Paul, Arlene Stevens, Dianne Friesen

The structure of the M i'km aq verb word is well studied (Ingliš 1986; McCulbch 2013; Hamilton 2015) but the function of some of the morphemes remains elusive. One of the less well defined morphemes, *eke*, is involved in transitivity. The morpheme *eke* was identified by Ingliš (1986: 15) as being a verb suffix ("final" in Algonquianist terms) marking an intransitive verb where an animate subject acts on an indefinite object. McCulbch (2013: 21) discussed that this morpheme may function to introduce a nonspecific internal argument or to delete/absorb the internal argument. We find that *eke* has neither of the functions described by Ingliš and McCulbch.

The research focuses on the dialect of M i'km aq spoken in Cape Breton. We study 108 verb stems selected to cover a range of verbs. We assume, following McCulbch (2013: 31), that roots are uncategorized and receive their classification as a verb (or a noun) by particular morphemes, and that *eke* is a suffix. We elicited clauses for each of the verb stems, using verbs with and without *eke*. We tested the verbs to determine if the verb could carry *eke* and if the verbs were in clauses that were transitive or intransitive. In addition to morphological criteria, we also used syntactic and semantic criteria, defining syntactic transitivity in terms of the number of object complements that can appear in a clause (e.g., Kemmer 2003) and semantic valence in terms of the number of semantic roles associated with the verb in context (Comrie 1989).

Contrary to our expectations, we find that a verb with *eke* can in fact have a specific DO in the clause (ex. 1). Therefore, *eke* cannot delete or absorb the internal object, nor does it license a nonspecific DO. We propose that *eke* is a light verb (cf. Manykina 2015 for the morpheme(s) *e'ge* in verb stems with noun incorporation) and that it is semantically transitive. The presence (ex. 1) or absence (ex. 2) of a DO (and its definiteness) depends on another closely related set of morphemes (classified as Vt).

- (1) *tep-eke-y tu'aqn*  
on-LV-1s ball  
'I throw the ball on.'

- (2) *tep-o't-eke-y*  
on-Vt-LV-1s  
'I am throwing stuff on.' (loading a vehicle)

Further research reveals that there are a set of intransitive light verbs and another set of transitive light verbs in M i'km aq. A light verb analysis has been proposed for several other Algonquian languages. A light verb analysis for M i'km aq and further investigation of the Vt-morpheme set may aid in navigating through some of the mismatch that has been reported between morphological and syntactic transitivity.

The Unami Harmony (1837 [1839]) of Ira Blanchard, a pioneering Algonquian linguist

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The Baptist teacher and missionary Ira D. Blanchard, working with James Conner, a young bilingual Delaware, and perhaps one or more others, produced a Southern Unami translation of a Harmony of the Gospels that was printed in Indian Territory (a part that is now Kansas) in the years 1837-1839. He had earlier produced two versions of a Delaware primer and a book of hymns, and he later produced a third primer, co-authored with Charles Journeyman.

The Harmony is remarkable for its generally idiomatic and sometimes free translation, attesting features of Unami (Lenape) that have no equivalent in the English original, such as an abundance of enclitic particles.

For example:

Blanchard nevlahi litw panek, aw mnc va mctkuskieku pr?

phonemic nihOłči Dtgógpangk, "aw égn=néh=ágm=étkáski-ka pég?"

self / say.{so}.REC IP.3p.PRET / who? / Q / POT / DUB / able.to / there / come.3s

translation They said to each other, "Who would possibly be able to get there?"

King James ... saying among themselves, Who then can be saved? (from Mark 10:26)

There is also a steady improvement in the transcription using the special alphabet that was probably developed in collaboration with the printer, Jotham Meeker. For example /šúkw/ 'only' is at first written <jwk>, but this spelling is eventually displaced by <jwq> with the final labialization indicated) starting on p. 81. And in general there is a steady improvement in the consistency with which the vowels are transcribed. The common word /teh\*c/ 'he or she said to him, them' is written <tclau> in the early pages (beginning on p. 38), later <tclao>, and still later <tulo>; from the beginning of the book up until p. 94 it also appears in an archaic form with the /-

l/ of the obviative suffix preserved: <tclaw l> (also found in the early primers), later <tclaul> and <tclao>.

Examples will be given of grammatical forms not found or poorly attested in 20th-century Unami, including those for obviative possessor, preterite, future imperative, and plural objects with certain plural subjects.

Examples of interesting words not found later will also be given.

## Theme Signs & Multiple Argument Indexing

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There are 3 main patterns of theme sign distribution, as in Table 1, based on the transitive verb paradigms in Oxford (2014). Generally, local and 3rd person sets are identical across all three patterns. It is the mixed forms, highlighted in grey, which crucially differ between patterns.

Table 1: 3 patterns

	Pattern 1		Pattern 2		Pattern 3	
Local	-i	-eT	-i	-eT	-i	-eT
	2>1	1>2	2>1	1>2	2>1	1>2
Mixed	-aa	-i/-eT	-aa	-i/-eT/-ekw	-aa	-ekw
	1/2>3	3>1/2	1/2>3	3>1/2	1/2>3	3>1/2
3rd	-aa	-ekw	-aa	-ekw	-aa	-ekw
	3>4	4>3	3>4	4>3	3>4	4>3

In Pattern 1 it appears that theme signs are object markers, since -i, -eT, and -aa only appear when 1st, 2nd and 3rd/4th person are objects, respectively, (e.g., Hockett, 1966, 1992). In Pattern 3, on the other hand, theme signs look like they must index the relationship between arguments, since the same inverse form appears in 4>3 and 3>2/1 forms, which do not share the same person combinations (e.g., Wolfart, 1971; Dahlstrom, 1991). Pattern 2 appears to be a combination of both patterns along a singular/plural divide (Oxford, 2014), since the object is indexed in 3<1/2 forms, but the inverse theme sign appears in 3>1pl/2pl forms.

We propose that in all cases theme signs are relational, in that they are the result of the person feature combination of the subject and object. Table 2 summarizes what is the common foundation for all theme signs and Table 3 shows the range of variation in 3>1/2 forms.

Table 2: Common basis

	SAP subject	3rd subject
10 BJ	-i	?
	2>1	3>1
20 BJ	-eT	?
	1>2	3>2
30 BJ	-aa	-ekw
	SAP>3	4>3
40 BJ	-aa	-aa
	SAP>4	3>4

Table 3: Pattern specific

	Pattern 1	Pattern 2	Pattern 3
3>1	-i	-i	-ekw
3>1pl		-ekw	
3>2	-eT	-eT	
3>2pl		-ekw	

The first generalization is that when the subject is a Speech Act Participant (SAP; 1st or 2nd person), only the person features of the object are indexed. The second generalization is that when there are two 3rd person arguments, obviative subjects override object marking and the inverse -ekw theme sign appears. The difference becomes whether the presence of a 3rd person subject: (a) overrides the object marking tendency for theme signs, as in Pattern 3, (b) does not override, as in Pattern 1, or (c) only overrides given the specific person features of the object, i.e., singular or plural in Pattern 2.

We take this variation to be a result of the specific variation in the probe-goal relation between Voice heads. We propose that in addition to typical person probe on Voice, it also has an additional D probe, similar to that proposed on Infl in Oxford (2014). The variation is a result of the interaction between these 2 probes.

## Lexical Subtypes in a Plains Cree Corpus

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Texts collected for Plains Cree offer an all-but-unique opportunity for corpus investigations in a Native American language. Initial counts for verbal and nominal subtypes were discussed in Schmirer and Harrigan (2016) on the basis of unverified analyses of the Plains Cree corpus. It was found that verbs occurred more often than nouns and that animate nouns occurred more often than inanimate nouns; unsurprisingly, verbal subclasses that take animate arguments were also found to occur more frequently. Animate nouns occur with a greater number of individual tokens, but a smaller number of unique word forms; this is in line with the narrative nature of texts, where entities that play a role in the narrative are mentioned repeatedly. The corpus used in Schmirer and Harrigan (2016) has since been hand-verified and this has allowed for increased accuracy in determining the frequencies of verbal and nominal subtypes in Plains Cree texts. Counts for this presentation are determined on the basis of the hand-verified corpus, which offers an analysis for 16,189 Cree word forms (73,400 tokens) of the altogether 18,953 non-punctuation word form types (representing 83,555 tokens) seen in the corpus.

Patterns for the occurrence of subtypes of verbs and nouns, and the forms they often occur in offer options for improved design of teaching materials, which often teach animate intransitive verbs, then transitive inanimate verbs, and then transitive animate verbs (e.g.

Okimāsis, 2004). However, counts in the Plains Cree corpus show that, while animate intransitive verbs are the most common, transitive animate verbs considerably outnumber transitive inanimate verbs, which may suggest that pedagogical materials that focus on transitive animate verbs before transitive inanimate verbs may be a more practical route to facilitate language use by learners. Looking beyond nouns and verbs, particles are a frequent, heterogeneous class of indeclinable words in Cree, serving numerous functions. However, particles like *êkwa* and *mâna* occur both more than 3000 times each out of 73,400 Cree tokens in the corpus; investigations into the various functions of such frequent particles would be beneficial to a classification of Plains Cree particles and the teaching and analyzing of Plains Cree.

Beyond subtype counts, the Plains Cree corpus offers many possibilities for lexical investigation. Morphologically complex languages are often remarked upon for their complex, extensive paradigms, whose possible members many number in the thousands or more.

However, corpora have demonstrated for many such languages that no individual lexeme occurs in every possible inflected form in actual language use, and that the forms that do occur appear to be determined by the core semantics of the lexeme (e.g. Karlsson, 1985, 1986). We will present a case study of the distribution of animate intransitive verbs within the possible VAI "core" paradigm which, taking into consideration only tense and person morphology, includes over 60 possible inflected form types. This study will consider a number of the most common animate intransitive verbs found in the corpus and observe how they populate the inflectional slots within the core paradigm. An understanding of the most frequent inflectional elements, in addition to the frequencies of subtypes, offers further opportunities for pedagogical materials and analysis of Cree.

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"The Community -- Our Extended Family": Relationality at the Intersection of Healing and Research in Indigenous Social and Health Services in Toronto

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In this paper, I highlight the ways in which healing and relationalism intersect in the production of knowledge and practice in social and health services in urban Indigenous context of Toronto. I refer to relationalism to describe the kinship based operating system of community life in which persons, organizations, and social and health programs, the community itself, are described in terms of kinship roles and responsibilities. While this is not a new term of my invention and has been used in other contexts such as interpersonal communications, I emphasize the expressive citizenship, with the "ism" of relationalism very deliberately emphasizing the social movement, agency, and power of action in the relational engagement of emergent Indigenous research practice. It goes beyond the anthropological use of relationality, which is certainly useful for understanding the complexities and politics of social relations which apply here, but which here also importantly centers decolonization in the way relationality in research is increasingly incorporating observers. Also, these local experiences parallel and add to significant formalization of structural transformations in research and of researchers engaged with/for/by Indigenous peoples in Canada through implementation of standards of ethical practice.

## Exploring the relevance of English Language Methodology to Naskapi L1 teaching

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The Naskapi First Nations people living in Kawawachikamach, Quebec speak a language with a high level of vitality that reflects their culture and is an integral part of the lives of the people. The school in the Naskapi community (Jimmy Sandy Memorial School) integrates much of the culture of the people into the curriculum and the educators, along with the curriculum department at the school continually strive to continue this process.

The following paper looks closely at the logistics involved in merging some of the methods used in teaching English as a second language (ESL) with the traditional methods of culturally based Naskapi learning. This paper will demonstrate that when educators draw on the cultural knowledge of the students, involve community members in the learning process combined with English as a second language (ESL) methods can produce a positive learning environment for all who are involved.

### Introduction

The purpose of this paper is to view some of the methods used in English as a second language (ESL) and explore how they could be integrated into Naskapi First Nation classrooms. Many First Nations students living in northern communities in Canada enter schools speaking and understanding the language of their community. Some experience difficulty when they are thrust into a second language learning environment.

The Naskapi community of Kawawachikamach is located in the interior region of northern Quebec, Canada. The very remoteness of the community has aided in the retention of the language and the culture of the Naskapi people. The Naskapis are part of the Algonquian language family, using the syllabic system of writing similar to the Cree. As nomadic hunters the Naskapi people often visited the Hudson Bay Posts that were established around the coastal regions and interior areas of Quebec and Labrador. During the summer of 1954 about 30 Naskapi children in Fort Chimo attended school for the first time (Cooke, 1976, p. 56). The Naskapis living in Fort Chimo and Fort McKenzie were relocated near the iron ore mining town of Knob Lake, later known as Schefferville, Quebec, in 1956. The late 1970s and early 1980s was a time of transition for the Naskapi people. In 1978 the Naskapi signed the James Bay and Northern Quebec Agreement (BNQA) and the Northeastern Quebec Agreement (NEQA). The NEQA granted the Naskapis nine million dollars and established land settlement, rights and benefits with the people. This money has been invested into the lives of the Naskapi people, enabling them to build houses, a school, health centre and the necessary infrastructure that helped them establish their community of Kawawachikamach on their own land near Lake Matamace and Lake Peter, about 15 kilometers northeast of the town of Schefferville, Quebec (Cooke, 1976, p. 68).

The majority of the Naskapi children in the community of Kawawachikamach enter school speaking primarily the Naskapi language. Upon entering school at the age of four or five, they begin to learn a second language, English. Those that speak and understand their native language are entering the learning environment grappling cognitively and linguistically as they endeavor to comprehend the learning tasks before them. The students are constantly processing the spoken and written words in their minds, deciphering what is taught through both their first language and the language of instruction.

## Evidentiality and Epistemic Modality in Algonquian

Marië-Odile Junker, Conor Quinn and Rand Valentine

The goal of this presentation is to outline a program of research across Algonquian languages that could help us better understand a range of some important grammatical phenomena in Algonquian. We survey as examples three representative chunks of the family: the Cree-Innu-Naskapi continuum, Ojibwe, and Eastern Algonquian. After first noting the very productive role of lexical means of expressing perception (the closest we get to sensory evidentials in Algonquian), we highlight how some of the Cree-Innu-Naskapi continuum languages show affixal morphology that contrasts (direct vs.) indirect evidentiality, inferentiality, and the very distinctive "dream witnessed" Subjective-with the remainder of the family showing essentially subsets of this range of contrasts. At the phrasal syntactic level, we examine how evidentials and epistemics also realize as still grammaticized uninflected particles, and how certain uses of quotative verbs in Algonquian languages show a special attention to the encoding of information source. We show that a major problem is the traditional treatment of relevant evidential phenomena as essentially epistemic. Across the family we identify recurrent elements that suggest that most of the basic morphological markers may reconstruct to Proto-Algonquian, or at least are later shared innovations: \*-(e)pa(n), \*-(e)saha(n), and \*-(e)tokeh (cf. Goddard 2007). But from there, a still important question of usage remains challenging. Simultaneous use of both particles and affixal forms are common: but the nature of their interaction and relative distribution remains largely unstudied, as does the interaction between structured lexical means of expressing perception with evidential (and epistemic) inflection and particles.

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## Mawessine! The Passamaquoddy-Maliseet Portal: How the Portal has Contributed to Research and Community Education in its First Five Years

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The Passamaquoddy-Maliseet Portal ([www.PMPortal.org](http://www.PMPortal.org)) (PM P) is the first online linguistics application interoperatively linking an indigenous language dictionary with a corpus of subtitled videos of natural group conversation and traditional community activity. The presentation will describe the history and structure of the PM P, the many ways it can be used, and how linguists and other researchers have actually been using it. Broader uses and impacts within the community will also be illustrated.

The PM P is a direct outgrowth of the original Passamaquoddy dictionary initiative begun by Philip LeSourd in 1979 and expanded by David A. Francis and Robert Leavitt to an 18,000 word dictionary by 2010— one of the first indigenous dictionaries to be accessible online before seeing a printed edition in 2008. In 2006, documentary filmmaker Ben Levine and heritage language educator Julia Schulz, collaborating with Robert Leavitt, introduced audiovisual documentation of Facilitated Natural Group Conversation as a new documentation methodology in Passamaquoddy communities (Levine and Leavitt 2012; Apt and Schulz 2012). In 2009, the team created the PM P to address the lack of interoperability between the online Passamaquoddy dictionary and the then mode of video access, DVDs. Both projects were supported by the National Science Foundation's DEL program.

This presentation will describe, demonstrate, and analyze the PM P as a dictionary, an interdisciplinary research resource, an archive, and a mode of access for different users. We will also introduce some of the technology behind the Portal, describe the conditions necessary for developing similar portals (a second portal for the Mi'kmaq language is now online), and discuss its impact in the community for language learning, intergenerational relations, linking to the Passamaquoddy diaspora, and how young people use it with mobile devices and in conjunction with social media as an identity reinforcing experience.

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## Pitch Accent in Maliseet-Passamaquoddy: An Instrumental Study

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Maliseet (M) and Passamaquoddy (P) are the New Brunswick and Maine dialects of a single Eastern Algonquian language. The presence of contrastive pitch is well established for P (LeSourd 1993). Pitch differences distinguish a few lexical items and differentiate among inflected forms of nouns and verbs: *nútom* 'I hear', *nutóm* 'I smoke'; *wásis* 'child', *wasis* 'children (obviative)'; *ma te natámew* 'I am not going fishing', *ma te natamèw* 'he or she is not going fishing'. (Acute accent = high-pitched stress; grave accent = low pitched stress; "o" writes /ə/.)

It is also clear that pitch differences are contrastive in at least some varieties of M (Goddard 1970, LeSourd 2007), although there is variation between among the communities. Sherwood 1986 suggests, however, that younger M speakers at Tobique, the largest settlement, had abandoned contrastive pitch by the early 1980s.

We report the results of an instrumental study, using Praat (Boersma and Weenink 2014), that compares the accentual properties of words in the speech of two M communities, Kingsclear and Tobique, and two P communities, Indian Township and Pleasant Point. Data for the study was digitally recorded in the field in August, 2014. Our speakers from Tobique, now elders, are members of the younger generation with whom Sherwood worked.

Preliminary analysis indicated that distinctive pitch accent, when it occurs, is restricted to the last three syllables of a word. We accordingly sampled F0 at intervals of 20 ms within the vowels of the last three syllables of words selected for potentially interesting accentual properties. The results were tabulated using a Praat script, and Praat was used to generate pitch tracks of the items in question.

Our results provide clear evidence for pitch accent contrasts in all of the varieties of M and P that we have investigated. At Tobique we find that our consultants maintain such contrasts as *ma te natámew* 'I am not going fishing' vs. *ma te natamèw* 'he or she is not going fishing', *nkisi-samehbkun* 'it touched me' vs. *nkisi-samehbkun* 'he or she touched us (exc.)', *knamèpon* 'we (inc.) are going fishing' vs. *ma te knamèpòn* 'we (inc.) are not going fishing', all of which are matched at Kingsclear and in Passamaquoddy. Thus, Sherwood's conclusions about the loss of pitch accent at Tobique are not confirmed.

Our study also makes it possible to give a preliminary characterization of the phonological and morphological determinants of the accentual properties of words in both M and P.

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## Theme signs in Potawatomi as object agreement and the inverse

This paper provides a Distributed Morphology (Halle and Marantz, 1993) analysis of the theme sign in Potawatomi as object agreement and the inverse. Potawatomi, like other Algonquian languages, has a suffix called the theme sign which occurs immediately after the transitive verb stem. These theme signs are given in Table 1. I claim that these theme signs are really two separate types of morphemes following Oxford (2014)'s analysis of Proto-Algonquian: object agreement and the inverse. Object agreement is the direct theme sign (a) is 3rd person object agreement, the theme signs used with combinations of 1st and 2nd persons (@ and @n) are 1st and 2nd person object agreement, respectively. The inverse theme sign (@gw), on the other hand, is a morpheme that surfaces whenever the object outranks the subject on a 1/2 > 3 hierarchy as found in Macaulay and Milligan (2007). The appearance of the inverse theme sign is due to the fact that object agreement is null whenever the inverse is overt. There is clear evidence to establish that the theme signs are really object agreement because of their distribution in the conjunct order.

**Analysis:** I assume the syntax given in (1). Both Inland Voice are agreement probes that agree with all DPs in their c-command domain. This means that voice agrees with the object. This is object agreement as described above. Infl, on the other hand, agrees with the subject and the object.

(1) [<sub>InflP</sub> Infl [<sub>VoiceP</sub> DP-Sbj Voice [<sub>VP</sub> DP-Obj V ]]]

I assume a privative feature geometry (Harley and Ritter, 2002; Béjar and Rezac, 2009; Oxford, 2014) that incorporates the hierarchy 1/2 > 3, where 1st person is [Pers, Prox, Part, Spea], 2nd person is [Pers, Prox, Part, Addr], and 3rd person is [Pers, Prox]. Thus, Voice has the privative feature geometry of the object and Infl has that of both the object and the subject. In other words, Infl agrees with the most richly specified DP. If this is the object (i.e. object is 1/2 and subject is 3) then Infl and Voice have the same agreement features (i.e. [Pers, Prox, Part, Spea or Addr]), and the spellout rules are ordered in a way that Infl is overt (inverse marking) and Voice (i.e. object agreement) is zero. Otherwise, Voice is overt, and Infl is zero. The spellout rules in Voice are given in (2).

(2)	a. Voice [r: α]	↔	-∅	/_____Infl[πα]Pol
	b. Voice [Pers, Prox, Part, Addr]	↔	@n	
	c. Voice [Pers, Prox, Part]	↔	@	
	d. Voice [Pers, Prox]	↔	a	

The rest of the data in the independent order is derived with a simple addition to the 1/2 > 3 hierarchy. I break 3rd person down into [Pers, Prox] for the 3rd proximate and [Pers] for the 3rd obviative following Oxford (2014). I also show that the 1st person inclusive, though left untreated by Oxford, is problematic for his analysis because it requires features from both 1st and 2nd persons. I account for a 1st person inclusive form by specifying it as [Pers, Prox, Part, AddrSpea].

Finally, the conjunct order requires a slight modification to the above analysis to account for differences in the distribution of the inverse from order to order. An additional zero entry for Voice is ordered in a different way than the other zero rule, not shown in (2). The grammar is able to tell these rules apart because only the independent order has Pol. Thus, two distributions of the inverse are accounted for by rule reordering. **Conclusion:** This paper expands an object agreement analysis given by Oxford (2014) within the framework of Distributed Morphology to Potawatomi. This paper thus provides further support for theme signs as object agreement and uncovers the succinct nature of how object agreement works with privative features.

# On the morphophonology of Miġmaq subject agreement

Carol Rose Little

Though the distribution of nals in Miġmaq is well studied (e.g., Inglis 2002; Hewson & Francis 1990), parts of the phonological and semantic distribution of third person markers for animate and inanimate intransitive verbs remains a puzzle. To investigate the third person markers, I used a text file of the Miġmaq Online Dictionary (MOD 2015) which includes the words from the online dictionary. I coded the 2,852 intransitive verbs listed to uncover phonological and semantic patterns of the three possible markers for third persons in intransitive verbs: /t/ (alveopalatal stop), /k/ (velar stop) and /q/ (uvular obstruent). I summarize results for each third person marker below. /t/ The third person marker /t/ always indexes an animate noun as displayed in (1). In the examples coded in the dictionary it never follows a consonant.

it̩hyai3 an

'He/she is it̩hy.'

/k/ The /k/ can mark both animate and inanimate third persons: when an animate intransitive final ends in a consonant, the marker is /k/ as in (2). With the final /e:/, the animate and inanimate intransitive forms are identical as in (3).

## Revisiting the Position of Potawatomi in (Central) Algonquian

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Hockett's (1943) "The Position of Potawatomi in Central Algonquian" (PPCA) investigated two questions: first, does Potawatomi belong to the Central Algonquian subgroup as laid out by Bloomfield (1924); second, is Potawatomi a dialect of Ojibwe, as proposed by Michelson (1912)? Hockett proceeds to lay out cognates and reconstructions, ultimately concluding "that Potawatomi is definitely a Central Algonquian language [emph. in orig.]" and not "simply a divergent Ojibwa dialect," (Hockett 1943:541), though "closer to Ojibwa than to any other language now spoken" (1943:542).

Immediately after concluding that Potawatomi and Ojibwe are separate languages that hold no special relationship, Hockett offers similarities between Potawatomi and Ojibwe and Potawatomi and Fox. In doing so, he inadvertently provides sufficient evidence to conclude that Potawatomi and Ojibwe form a subgroup (1942:541-542). Furthermore, much has changed in our understanding of both Ojibwe dialectology and Algonquian historical linguistics since PPCA. Later in his life, Hockett himself recognized this, writing that "it may be reasonable to reconsider Truman Michelson's (1912) classification (also Friedrich Baraga's of a century ago) of P as a somewhat aberrant O dialect" (Hockett 1992:507), though again he hedges, asking "in any case, is there any real difference between 'aberrant dialect' and 'separate but closely related language'?"

In this paper, I revisit the claims laid out in PPCA (Hockett 1943), expanding on the presentation there with new evidence. Along the way, I show how better knowledge of Ojibwe, Potawatomi, and the Algonquian family tree lead to a conclusion that Algonquianists have had since Michelson – that Potawatomi and Ojibwe form a subgroup.

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## Comparing dialectal differences of Anishinaabemowin from Southern / Central Ontario from a learners' perspective

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Learning a new language can be a difficult task as an adult learner. Learning an Indigenous language as an Indigenous person brings on whole new set of different challenges. These challenges include, but are not limited to: feeling of despair or anger towards oneself for not already knowing how to speak; not living around any fluent speakers to help one learn; learning different dialects at one time. These challenges can be daunting for anyone when learning Anishinaabemowin.

As a 2nd-language learner of Anishinaabemowin since 2007, the author will share his experiences of trying to become a proficient speaker being from a First Nation/Tribe that no longer has any fluent speakers living. He will compare Anishinaabemowin dialects that are spoken in Central (Manitoulin Island, Georgian Bay area) and Southern (Southwestern) Ontario. The dialects in these areas have been given the term 'Ojibwa'.

From firsthand recordings and notes, the author will compare sentences, words, and expressions that are used from fluent speakers from those areas. The comparisons will be used to point out a few of the common challenges that adult learners face when trying to become a proficient speaker while also trying to become proficient at writing Anishinaabemowin using the double-vowel writing system and the Anishinaabemowin language resources that are published.

## Status of Classifying Morphemes in Ojibwe

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In Ojibwe, certain morphemes are said to have a classifying function (Baraga, 1878:311-4; Valentine, 2001:572, 883-4), i.e. they denote a specific property of a referent.<sup>1</sup> Their semantic parameters are based on physical properties including shape, e.g. *minag* 'round', material, e.g. *aabik* 'metal, stone, glass', inherent nature, e.g. *oonag* 'boat, vessel', arrangement, e.g. *wewan* 'pair' and quantity, e.g. *naagaans* 'cupful', or possibly a combination of these such as shape and material, e.g. *aatig* 'stick, wooden pole'. The same classifying morphemes may occur in multiple environments, including numerals (1), verbs (2) and nouns (3).

(1) Classifying morphemes in numeral

a. *ningodw-aabik*

one-CL.metal/stone/glass

'one metal/glass/stone (object)'

b. *ningodw-eg*

one-CL.cloth

'one cloth (object)'

(2) Classifying morphemes in verb

a. *ginw-aabik-ad*

long-CL.metal/stone/glass.-be.VII

'IN (metal/stone/glass object) is long'

b. *ginw-eg-ad*

long-CL.cloth-be.VII

'IN (cloth object) is long'

(3) Classifying morphemes in noun

a. *waasechigan-aabik*

window-CL.metal/stone/glass

'window pane'

b. *waasechigan-iigin*

window-CL.cloth

'curtain'

However, it is not necessarily the case that these morphemes serve as classifiers proper in all environments. I argue that classifying morphemes occurring in numerals and verbs are classifiers, thus Ojibwe may be labeled a 'multiple classifier' language (Aikhenvald, 2000:205). In contrast, these morphemes are not classifiers when occurring in nouns, rather, they are derivational suffixes. This analysis is supported by cross linguistic comparison of the Ojibwe data with descriptions of numeral and verbal classifiers, as well as noun classifiers and class terms, which are drawn from modern typological approaches to noun categorization (Aikhenvald, 2000; Ginevald, 2000).

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<sup>1</sup> IN- inanimate gender

VII- inanimate intransitive verb final

CL- classifying morpheme

## Re-examining the front vowels in Saulteaux Ojibwe: the case for the short /e/

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The different dialects of Ojibwe are typically described as having an asymmetrical vowel inventory including long and short versions of /i, a, o/ but only a long /e:/ (Logan 2001, Valentine 2001, Cote 2012, among many others). Based on my fieldwork on Saulteaux Ojibwe in Manitoba, I show evidence for the short /e/. In this paper, I aim to extend Piggott's (1980) analysis of the Odawa vowel space. In contrast to his analysis, though, I propose /e/ is not an abstract phoneme because its faithful allophone [e] does surface. More specifically, I show that [e] is as an allophone of both underlying /e/ and /i/.

Piggott (1980) proposes a low level process of /i/ and /o/ lowering in Odawa yielding [ɛ] and [ʌ] respectively. I find evidence for the same /i/-lowering process in Saulteaux, though the allophone's quality is that of other than [ɛ] in (1).

### (2) Saulteaux Ojibwe

ni:mi-w 'he dances'	awē:si	'animal'
[ni:mɛ]	[awē:se]	

The surface form [e] also appears elsewhere in the data (i.e. non-lowering environments), diverging from Piggott's analysis of Odawa. See (3) for a few examples.

(3) [pene:fi:]	'bird'	[nepe]	'water'
[mɛjki:ʒɪk]	'eye'	[anenang]	'ANsg pass IN along'

There are two possible explanations for the other instances of [e] at the surface. Either, [e] is the result of another process (e.g. /i/-lowering or an /e:/shortening) or there is an underlying /e/ in Saulteaux. In my analysis thus far, I do not find a predictable distribution of [e] in terms of segmental environment, place in the metrical foot, foot position within the word, or syllable type (open vs. closed). An allophonic explanation therefore falls short. Moreover, [e] often appears in the same environments as [i] within the data, though I have been unable to find true minimal pairs as of yet. Consider (4), for example.

(4) [mini:ʃan]	'berries'
[menɛndʒ]	'hand'

In both 'berries' and 'hand' the vowels in question appear in the segmental environment  $\_n$ , in the weak position of the first iambic foot, and in an open syllable. Therefore, given the lack of predictable distribution and notable overlap, I propose that the best explanation is in fact an underlying /e/ that surfaces faithfully. In addition to this, the neutralizing process of /i/-lowering produces a surface form [e] word-finally.

To my knowledge the proposal for a phonemic /e/ is new for Saulteaux Ojibwe, but the idea has precedent given Piggott's (1980) analysis of Odawa. Instead of an abstract /e/ to account for apparent "exceptionalism" in certain morphemes, however, I propose that this phoneme is not abstract and is distributed more widely throughout the language. In addition to being the more plausible explanation for the presence of [e] in the data above, the addition of /e/ eliminates the gap and imbalance in the Saulteaux vowel inventory providing a cleaner account of the phonological grammar.

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## Pitch and Intensity of Lexical Accent in Blackfoot

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Blackfoot has been referred to as a pitch accent language (Frantz 2009). Although the expression has been widely adopted, there are other views regarding Blackfoot word prominence: Blackfoot stress is observed as "a strong expiratory accent," thus intensity (Uhlenbeck 1938:9); Blackfoot prominence involves both pitch and intensity (Van Der Marck 2002; 2003; Taylor 1969). Among the previous studies, only Van Der Marck (2002; 2003) provides a rigorous instrumental study of Blackfoot pitch accent, reporting that it is acoustically manifested in higher pitch (perceived F0) and amplitude (intensity). However, to my knowledge, this is the only acoustic study of Blackfoot word prominence and this lack of acoustic data may be why intensity as a correlate of word prominence is not well understood.

The present study examines whether intensity, in addition to pitch, is a necessary correlate of Blackfoot word prominence. Utterances of a native speaker (female in 60s) were recorded. The speaker repeated a word in isolation a total of three times, and all three utterances of over

150 words were measured and examined to determine whether the accent's acoustic correlates (F0 and intensity) consistently marked the same vowel throughout these utterances of the same word. Results of the analysis of the speaker's utterances show that the highest pitch of a word was more consistently detected on the same vowel across three utterances of the same word (95.6%) than the highest intensity (75.5%). In other words, in 24.5% of the measured words, the highest intensity of a word was detected on different vowels of the same word in different utterances. Thus, pitch is the genuine correlate of word prominence. Intensity largely correlates, but not as strongly.

This study enhances Blackfoot linguistics. First, it adds rare instrumentally analyzed data and calls for similar and comparable experiments as the result was not parallel to the previous study. Second, the data provides a further understanding of the previous possible accounts for intensity to correlate with prominence (Van Der Marck 2002): The possibility of intensity used as a word prominence cue no longer holds based on the present data. However, this study does not eliminate the possibility that intensity may be used as intonation and thus suggests future research in this field. Third, this study contributes to second language acquisition of Blackfoot prosody. The second language (L2) transfer effect predicts that L2 learners may incorrectly perceive and produce Blackfoot words with respect to accent. Finally, this study provides Blackfoot language educators with the information of authentic Blackfoot pronunciation.

## Mass and count nouns in Cheyenne

Sarah Murray

This talk discusses the distinctions between mass and count nouns in Cheyenne (Algonquian: Montana and Oklahoma), based on existing language materials (e.g., Lemmon 2011; Fisher et al. 2006) and the author's fieldwork.

Some Algonquian languages have been argued to not have a grammatical distinction between mass and count nouns (Rhodes 1990 for Ojibwa, Wiltschko 2012 for Blackfoot), while others have argued there is such a distinction in at least some Algonquian languages (Mathieu 2012, also for Ojibwa). Considering the Cheyenne dictionary (Fisher et al. 2006), texts (e.g., Lemmon 2011), and diagnostics from fieldwork, this paper argues that a grammatical mass-count distinction does exist in Cheyenne.

In the Cheyenne dictionary (Fisher et al. 2006), most nouns are listed with a singular, plural, and obviative forms. However, for some nouns, only a single form is listed, including *maḥpe* 'water', *matana* 'milk', *hoḥpe* 'soup', and *hes'é'ov'ó'e* 'sand'. Consider *matana* 'milk': it is inanimate, but there is an animate variant meaning 'breast' which is listed as having plural forms *matana ne* and *matana ho*.

Several diagnostics for a mass-count distinction have been applied crosslinguistically, including pluralization and the combination of nouns with numerals. In English, mass nouns do not normally pluralize or combine directly with numerals and when they do, they receive different interpretations, e.g., *waters* and *two waters* (\**two water*) can mean portions of water or kinds of water. In Cheyenne, nouns like *maḥpe* 'water' can occur with numerals, and can do so without plural morphology: *ne'ṣe maḥpe* means two portions (e.g., bottles) of water. Further support for the interpretation of apportionment comes from the text *Hang Around* (Lemmon 1987:178) where *ko'ḥkono' h'e'ó'ó'* 'bread' occurs with *ne'ṣe* 'two' and plural morphology, *ne'ṣe k'ó'ḥkono' heo'no' tse*, for a meaning of two loaves (portions) of bread.

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## Reducing anxiety, increasing core competence: a practical program for beginner adult heritage learners of Eastern Algonquian languages

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We report on a new curriculum approach for beginner learners of three Eastern Algonquian languages (Penobscot, Maliseet, and Mi'kmaq) that actively targets the practical needs of L1 English adult heritage learners, and challenges still too often unquestioned default priorities of school-based teaching.

In this model, beginner course content minimizes busy adult learner anxiety and memory load (and optimizes for purely oral instruction) by limiting itself to eleven brief (5 min) lessons, each introducing at most two to three sentences' worth of new information. Each lesson's new information is carefully selected as the intersection of two essential criteria: (a) it must be a simple model word/phrase that forms a key step within a clear progression of essential morphosyntactic patterns, and (b) it

## Revisiting the Historical Derivation of some Menominee Morphophonological Rules

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Certain morphophonological rules postulated by Bloomfield in *The Menominee Language* (1962) do not have clear parallels in the morphophonological systems of Menominee's close relatives or in the system reconstructed for Proto Algonquian. Although Bloomfield's analysis of Menominee morphophonology is synchronically compelling, there are a few rules derived from the unusual behavior of a single root or handful of roots for which a diachronic reanalysis may be in order. In particular, Bloomfield postulates the reduction in four roots (*k hk*, *ke hk*, *m o hk*, and *oht*) of root-final *hC* to *h* before certain finals beginning in *p*, and a rule by which two adjacent instances of underlying *a* coalesce into one surface vowel. Drawing on lexical data from Menominee's relatives (especially Cree, Meskwaki, and Ojibwe), as well as the reconstructed morphological and phonological system of Proto Algonquian, I attempt to unravel the history of these constructions by interpreting them as reflecting normal processes of word formation and morphophonology known to have operated in the history of Menominee.

It's not particularly groundbreaking by any means: the paper mostly just cleans up some analyses in Bloomfield's grammar of Menominee that whatever their synchronic validity imply historical derivations that don't work. The whole thing boils down to fixing the etymologies of a handful of Menominee words, which are based on five roots:

A root *k hk* 'to mark, flag, tie', usually derived from PA *\*keθk*. Goddard shows in a 1982 article on the historical phonology of Munsee Delaware that the actual root was *\*keθ* 'hold firmly', which could take derivational suffixes in both *k* and in *p*.

A root *ke hk* 'to insult, deride', from PA *\*kih k*. The etymology of the root itself is sound, but not the word which Bloomfield considers to show the process of cluster reduction: *ke hpow* 'he has a stomach ache' is the only example, and it's much neater to derive it from *\*kit* 'to be sore'. Probably these two roots were related in the PA period, and *\*kin* 'to sharpen' very possibly belongs to the same word class. (The only issue is that *\*kit + \*k* would not have given *\*kih k* but *\*kix k*. For Menominee, *\*xk* and *\*hk* both gave *hk*, but this is not so: e.g. in Cree however, the existence of *\*kin* indicates that the original root might go deeper still, to *ki*. I am satisfied with deriving *ke hpow* from *\*kit* as a matter of cleaning up and explaining the Menominee data, but it does raise new questions.)

A root *oht* 'there, therefore' (PA *\*ont* or perhaps *\*went* either have been advanced and for these purposes it doesn't much matter), which is said to reduce between two finals *pwa* 'by mouth' and *pya* 'to come', to give *ohtpwa* 'smoke tobacco' and *ohtpya* 'to come from there'. Here, again, a historical approach implies an analysis distinct from Bloomfield's. The surface form *ohpiw* can mean both 'he comes from there' and 'he smokes tobacco', and the latter meaning is also found elsewhere in the grammar (section 15.529) analyzed as *oN pwa*, with root *oN* 'arrange, in place', which must be from PA *\*or* 'to arrange' and the combination *\*orpwa wa* would most likely give *ohpiw* in Menominee (*\*rp* isn't usually reconstructed if it existed, it was exceptionally rare but *\*rk* gave *hk* in Menominee, and clusters in *k* and those in *p* virtually always pattern together). For 'smoke tobacco', cf. Meskwaki *ohpwâ kana/ahpwâ kana* 'tobacco pipe'. *ohpiw* meaning 'he comes from there' presents much more of a problem; we would expect a form *\*\*ohce piw*; *oh* as a root taking finals in *p* usually means 'upwards', from PA *\*on / \*wen*. There is no clear explanation for why *ohpiw* means 'he comes from there' and not 'he comes up', which doesn't seem to be attested; but the semantics and forms of the two roots are close enough that I think, as with *\*kih k / kit*, that both ultimately come from the same source, and that *\*ont* contains a suffix, possibly *t* ( glossed in Hewson as "post-initial, transverse barrier or position"), that narrowed its meaning from an early date. In this case *ohpiw* 'he comes from there' is an unusual archaism.

A root *m o hk* 'appear, attack' (PA *\*m o θk*) which must somehow underlie *m o hpokosew* 'he (as, on) appears in the taste of something'. This appears to be something of a family-wide hapax legomenon. I have checked dictionaries of everything from Arapaho to Passamaquoddy looking for a reflex of *\*m o θp*, and nothing has turned up. One possibility admittedly tenuous, but not inconceivable is that the root reconstructed as *m o l* 'be suspicious' by Hewson was actually *\*m o θ*. Cree provides a counterexample *môy*, which must be from *môr* at some point along the line, but we know that a fair amount of lexical swapping has occurred between Cree and Ojibwe, where *\*m o θ* would have gone through an intermediate *\*m ôr*. (The only other language that would have separate reflexes for *\*m ôr* and *\*m o θ* is Arapaho and although a bit more digging is needed, because there isn't really a satisfyingly large Arapaho dictionary to consult, the verb for to suspect found in the dictionary that has been compiled doesn't line up.)

Finally, Bloomfield writes that two instances of underlying *a* coalesce to form a single *a* and this is unusual, because normally two adjacent long vowels become separated by a *y* in the surface form. We know that this was the case for two long *a*, and Menominee never underwent the sort of glide deletion that would allow for this sort of coalescence. It appears that Bloomfield

based this rule solely on the root *\*aw* 'to cease, stop', which is only found in three words *anuakawew* 'it runs as the last flow (of maple sap)' (with final *kaw* 'flow'), *anuanemat* 'the wind subsides' (with medial *a nem* 'wind'), and *anuapiqnen/anuapiqnan* 'it ceases to rain/snow' (with medial *pi* 'water, liquid'). Note that *ua* is a diphthong deriving from underlying *wa* after a consonant). Neither *anuakawew* nor *anuapiqnen* are synchronically strange looking the medial of the latter contains a short vowel, which a preceding long vowel would swallow. However, we would expect 'the wind subsides' to be *anuaya nem* or thereabouts.

Hewson reconstructs a root *\*alw* (*aw*) as the etymon for *anwa*, and gives a solution, though (as it's a four-line dictionary entry) he doesn't state the effect it has on our understanding of Bloomfield's synchronic phonological analysis. *\*arw* (*aw*) had both a short and a long form; in the etymon of *anuanemat* the medial *\*a nem* was affixed to the short form *\*arw*. However, *\*ekaw* (of uncertain etymology; the epenthetic *\*e* before the *\*k* is normal) and *\*epy* 'liquid' were attached to the long form *arwaw*. It's well documented that the contraction of underlying *\*awe* to *\*a* in most instances is a very old process which was in operation in the Proto-Algonquian period, and so underlying *\*arwaw ekaw* and *\*arwaw epy* would have given *\*arwakaw* and *\*arwapy* without too much fuss. There is thus no reason to backdate Bloomfield's analysis of underlying double *a*.

## Discursive Uses of Main-Clause Conjoint Verbs in Ojibwe

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The Ojibwe conjunct order is typically discussed as marking syntactic subordination, Wh questions, and cleft constructions. But, as has been noted in the literature (e.g. Fairbanks 2009, Lochbihler and Mathieu 2013:28, Valentine 2001:951), conjunct verbs regularly appear in main clauses, outside of Wh or cleft constructions. I therefore expand on this use of conjunct morphology, arguing that the conjunct is used in such cases to mark temporal sequencing ('and then') (1), result ('and so') (2), and the second sentence in tight discourse units (3). The semantics of the latter is roughly equivalent to an English writer linking two clauses with a colon or semicolon rather than a full stop. These uses of the conjunct are exemplified in (1-3), where main-clause verbs are underlined and conjunct main-clause verbs are bolded as well.

- (1) W a apane idog i'w bikwaakwad iw idichiw aasa iw idiog iianiganaandaan. M iish idog inaa giipitood inaa jigizhibatood idog anishinaabeg gaa izhi-noondaagoziw aad aaninigo anishinaabeg. But he smacked that ball way far over there. Then as he was running there, running just fast, the Indians made a ruckus' (De Auginaush, in Treuer 2001:162-163).
- (2) Ingiazhe-izhiw ijgaaz W azhashkoonsing ishkwaa boonitooyaan gikinoo'amaagoziyaan inaa G w iizensiw izibing. M iigo miinawaa go gaye giikinjiba'iw eyaan, izhaayaan inaa M isi-zaaga'iganing. But I was sent back to Tomah after I quit going to school there at Boy River. So once again I ran away, going there to Mille Lacs' (Emma Fisher, in Treuer 2001:192-193).
- (3) Ingiozhigaagoonaanig ingiw odaakeogimaag. M iigaa ozhitoow aad ikom itgo-waakaa'igan i'w apii. Apane ko ingiianishinaabem om in gaganoonidiyaang. N awajsa giikikendam aan anishinaabem ow in i'w apii awashim e gikendam aan noongom. '[Those government officials were building houses for us; they always made big houses at that time.] [We were always speaking Indian when we talked to each other; I knew the Indian language better at that time than I know it now]' (Emma Fisher, in Treuer 2001:190-191; my punctuation in the English translation).

This leads me to argue against the view that main-clause conjuncts are primarily markers of foreground material in stories, as argued by Fairbanks (2009) for Ojibwe and Cyr (1991) for Innu. Rather, in an argument very similar to Drapeau and Lambert-Brière's (2012) comments on Innu, I analyze foregrounding as an occasional byproduct of main-clause conjuncts' use as a marker of temporal sequencing.

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## The Origins of the Algonquian Impersonal ("Passive") Inflections

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The "impersonal subject" category in Algonquian verb inflection has traditionally been treated as some kind of indefinite or unspecified subject, but 'one dances' is different from the unspecified 'someone is dancing' and of course entirely distinct from the indefinite NP in 'some girls are dancing'. Various attempts have been made to analyze the TA impersonal subject forms as passives, but they cannot account for the fact that intransitive verbs also have impersonal subject forms with the same morphology, e.g. *M eskwakinim ipi* 'one dances', *nim iha pi* 'one makes him dance, he is made to dance'. Unspecified (and indefinite) subjects are third persons, but an impersonal subject (X) ranks as a separate "person" higher than third in the hierarchy 2 > 1 > X > 3 ...

The independent indicative verb paradigm has been very thoroughly studied by generations of scholars (cf. Goddard 1967), but the other independent modes and much of the conjunct order have had much less scrutiny. In the independent, some of the impersonal inflections fit neatly into the paradigm, but the X1 and X2 forms are built on \*/eko:/ or \*/eke:/, two suffixes not previously accounted for. In the conjunct, the impersonal is marked by \*/enk/, \*/ent/, and other endings containing \*/en/, with many irregularities that have been noted (e.g., by Goddard 1979) but not previously explained.

It appears that while a few of the independent impersonal inflections may be quite old – either part of the original system or added a little later where there were convenient gaps – the rest are much later additions. In the TA paradigm X-3) \*/a :?m i/ and X3 \*/a w/ are old, but X1/2 \*/eke :?m i/ and \*/eko :?m i/ were built using recycled parts from other forms, the "unspecified animate object" suffix \*/kew/ (as in *\*ahsanke wa* 'he feeds people' and the absolute inverse (3' / 0')3 suffix \*/ekow/ (as in Cree *wapam kow* 'he (3's) sees him (3s)').

The "secondary object" impersonal forms in \*/an/ and \*/ekwen/ are also comparatively new, formed from the older paradigms by replacing final \*/?m/ or \*/w/ with \*/enay/, a compound of \*en- 'that' and \*ay- 'person, thing'. When immediately followed by an inanimate ending, \*/enay/ was reduced to \*/en/ (Pentland 1999:256-7); \*/en(ay)/ was then imported into the conjunct paradigm to provide impersonal subject inflections parallel to the new independent endings, but it was not subject to the same restrictions as the original conjunct suffixes and could therefore form novel combinations such as \*/ent/ < \*/en(ay)/ + 3rd subject \*/ti.

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How do you say "two-spirit" in Algonquian?

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The term "two-spirit" is commonly cited as deriving from the supposed Anishinaabemow phrase *niizhmanidoowag*, yet there is no clear source for this claim. If not *niizhmanidoowag*, what words did Algonquian peoples use to refer to those we now call lesbian, gay, bisexual, transgender, or queer? Where do words and stories referring to two-spirit ancestors survive, and what determines their survival or lack thereof? This paper will follow the process of recovering and creating Anishinaabe and Cree two-spirit stories by examining various sources where two-spiritness appears in the record, such as missionary dictionaries and grammars, early ethnographies, and oral tradition. It will attend particularly to the impact of colonization on these sources and the ways in which colonization has affected linguistic, sexual, and gendered practices among Algonquian peoples. Finally, it will explore the ways that modern two-spirit people and allies have dealt with their linguistic position through strategies such as reclaiming and even creating new language to describe themselves.

## Peter Jones's Genesis

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In 1835 the Rev. Peter Jones (1802-1856), a natively bilingual, mixed race Mississauga Ojibwe and a Methodist minister (Smith 1987), published a translation of Genesis. He had previously published various religious materials, including a Gospel of John (1831) and a Gospel of Matthew (1832). We choose the last of his works because it represents his most mature work as a translator. In this paper I will examine the language of the work in three distinct ways. First we address dialect, then the nature of the transcription system and how natural the translation is – a measure of how much we can trust it as a source of information about issues of larger scope than the morphology, and lastly we will compare it to work on the same dialect by the Rev. Edward J. Wilson 40 years later, which, if it isn't Eastern Ojibwe, is at least heavily influenced by Eastern Ojibwe. (see the discussion in Rhodes 2011).

Jones' Genesis is transcribed in a system based on English orthography. Thus the consonants are fairly straightforward. Most notably the digraphs sh, zh, and ch represent [ʃ], [ʒ], and [tʃ] respectively, and j represents [dʒ]. The vowels are more problematic. The basic transcription uses ah for both /a/ and /aa/, but also occasionally u for /a/ and o for /aa/. Similar complexities exist for the transcriptions of /i/ and /ii/, mostly eh. Jones uses oo for both /o/ and /oo/, and a (sometimes ai) for /e/.

The internal evidence in Jones' Genesis indicates that it is an example of the Eastern Ojibwe dialect. We will show that it is clearly distinct from both 19th century Ojibwa (represented by works produced under Baraga and Sifferath's names) and 19th century Southwestern Ojibwe (represented by works produced under Baraga's name). Jones' Genesis is not Ojibwa because it lacks the distinctive lexical items that clearly mark both 19th and 20th century Ojibwa. For example, kedezhenekahzow in /gidizhinkaazow in/ 'your name' rather than distinctively Ojibwa gidanoozow in. Jones' Genesis uses mahbah /maaba/ 'this AN' and mondah /maanda/ 'this NAN' as emphatic demonstratives making it distinctive from both Ojibwa, where these forms are non-emphatic, and Southwestern Ojibwe, where the emphatics are maabam and maandan. Also Jones' Ojibwe shares with modern Algonquin varieties the complete lack of voicing of word initial obstruents. Baraga was ambiguous in his transcription, again suggesting the Jones dialect has eastern rather than western affinities.

The translation appears to be freer than word for word, but still fairly literal, with interesting terms for peculiarly Biblical terms, e.g., ooge oogwesunen 'he was son to him' for begat. The general conclusion will be that the language is fairly natural Ojibwe.

There are similarities and differences with Wilson's later work, including that Wilson's Ojibwe shows quality differences between long and short vowels, Jones Genesis doesn't.

## A lford 's Shaw nee Translation of the G ospels

Carl Schaefer

Thomas W ildcat A lford 's 1929 translation of the four gospels into Shaw nee is a rich source of information about the Shaw nee language in the early 20th century. His text has features of interest for Shaw nee phonology, morphology, and syntax.

A lford 's transcription, while odd at first sight, is ingenious. He wished to represent vowel length correctly without resorting to digraphs or diacritics. Additionally, he wished to use Latin letters to represent Shaw nee phonetics while preserving, where possible, something close to their English phonetic value, employing, for example, <e> for the Shaw nee long /ii/. By repurposing the otherwise unneeded English letters <r> and <v>, A lford can accurately represent all the long and short vowel distinctions except for short /e/ and long /ee/. The presentation will include a description of his workaround for representing the /e/ ~ /ee/ distinction and will discuss a related issue, the apparently free variation between <g> and <k> in many contexts. Other features of interest in the transcription include A lford 's representation of Voegelin's (1938) <g> and <k>, and the irregular or unexpected appearance of a "ghost" short vowel between stops.

With respect to morphology, A lford 's text shows some forms with archaic passive suffixes and participles with archaic initial change. Since the corpus is large, most inflectional combinations are well documented. For some forms, A lford 's usage differs from that documented in Voegelin (1936).

A lford 's translation follows the English original closely. This influence of the English text is most evident in the word order of the Shaw nee translation's echoing the English word order. In this respect, A lford 's translation may differ from idiomatic Shaw nee. However, there are many cases where the English and Shaw nee word order differ significantly, preserving known Shaw nee syntactic patterns. The presentation will discuss the varied syntax and range of meanings of hoci as postposition and preverb.

While A lford 's publication is still available in academic libraries, an accurate, fully digital version of the text has not been generally available. Building on unpublished work by David Costa and Yves Goddard, and taking advantage of a recent scan and optical character recognition of the original (<https://archive.org/details/fourgospelsofour00alfo>), a new digital version of the text, together with a normalization of the text, morphological annotations, and English glosses, is being developed. A preliminary version of this work is now available on request.

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# Plains Cree Verbal Derivational Morphology: A Corpus Investigation

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Verbal derivation is only one part of the extensive verbal morphology of Plains Cree: verb stems are morphologically complex, inflection involves prefixation, suffixation, and circumfixation, reduplication may be prefixed to any lexical element in the verbal complex, and, historically at least, initial change affected the first vowel of a verb to indicate specific semantic effects within the conjunct mode. A stem is created by at least one and potentially several layers of recursive derivation involving root morphemes and medial and final suffixes (Wolffart, 1973, 1996). However, preverbal derivation is also possible before inflectional morphology is applied. Preverbs are elements that are prefixed to verbs that express either grammatical categories such as tense and clause type or, when derivational, lexical categories. While some preverbs may arguably be both grammatical and lexical, lexical preverbs generally act similar to adverbials or auxiliary verbs, specifying something about the action: *nôhtê-* 'want to', *niṭaw i-* 'go and', *nihtâ-* 'be able to'. Templates of the elements which we will consider to be the derivational morphology of Cree verbs are given in Table 1 and Table 2; these are lexical preverbs and stem derivation, respectively, with examples of each.

**Table 1** Lexical preverb template (adapted from Wolvengrey, 2012)

Participant-oriented modality	Phasal aspect	Manner/direction
kakwê- 'try to'	mâci- 'begin to'	isi- 'thus, this way'

**Table 2** Verb stem derivation template (adapted from Wolffart, 1996)

Primary stem			Secondary stem		
Root	(Medial)	Final	(Medial)	Final	etc.
wâp- 'light, bright'	-âskw 'wood'	-(i)kê general object			

A preliminary study of preverbs has shown that the upper limit of preverbs in texts is six, though the combinations of preverbs and verb stems and their constituent morphemes have not been investigated (Wolvengrey, 2015). In this talk, we will focus on how preverbs co-occur with each other and other elements of verbal derivational morphology in a morphologically analyzed Plains Cree corpus of approximately 100,000 words, combined with a derivational decomposition of verb stems provided in the lexical database underlying Wolvengrey (2001). We will begin with looking separately into the individual and joint occurrence frequencies of preverbs on the one hand and verb stem derivational morphemes on the other hand. This will be followed by an investigation of the ways in which preverbs co-occur with other derivational elements within the verb stem, including root, medial, and final morphemes; these may correspond to those preverb-stem combinations that are lexicalized, or they may indicate other patterns that may be of interest to Cree lexicography. Finally, we will consider whether the derivational complexity of verb stems (e.g., the number of medial and final elements) affects the number of preverbs involved; that is, if there is an upper limit for preverb use, this may correspond to an overall upper limit for verbal derivation in general. Alternatively, stem derivation may often be frozen and so does not contribute to overall derivation.

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## Lexical patterning in Michif: reconsidering the role of French

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Michif has been described as a language that combines morphosyntactic elements of its two major lexifier languages, Plains Cree and French. For instance, Papen (1987:247) states that "[...] the grammatical structure of Métif [Michif] is made up in more or less equal parts of French and Cree." Bakker (1997:10) observes that "Michif [...] has all the morphological complexities of Cree and French [...]." More recently, Stader (2016) concludes that "[...] the syntax of the Michif DP [...] reflects the syntax of both French and Cree." We argue however that the French morphosyntactic components are in fact fossilized. The arguments for our position stem from an analysis of both verbal morphology and determiner phrase (DP) morphosyntax in Michif as they relate to French. The few French-derived verbs in Michif often display unexpected inflection for the context and French-derived verbs in Michif are reduced morphologically when compared to their original morphology in French. Furthermore, we argue that Michif has fossilized masculine-feminine gender as well as fossilized liaison, since French-derived articles are not in complementary distribution with Cree-derived demonstratives, gender agreement between adjective and noun is unproductive, and since no new material can be inserted between the French-derived article and the noun besides fossilized adjectives. Finally, we demonstrate that the morphosyntactic characteristics of French-derived lexemes in Michif are not unique to Michif but are found in another Algonquian language with lexical borrowings from French, Innu, a language that is not described in the literature as having French morphosyntactical structure. We conclude by saying that Michif's grammatical structure should be considered as thoroughly Algonquian as it does not possess an active French-derived morphosyntactical system.

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## A Pedagogical Grammar of Moose Cree For L2 Learners

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The Moose Cree dialect is an Ldialect spoken on Moose Factory Island and in Moosonee, Ontario. Contrary to other Cree dialects, mostly those spoken in Quebec, it is not used anymore by children and young adults as the language of communication. Faced with this situation, the Moose Cree First Nation Band Council has undertaken some actions to develop pedagogical material for those who are interested in learning the language as a second language. First, a dictionary has been published (Brousseau et al 2015) which was followed by a grammatical outline, and currently an online talking dictionary is being recorded. Finally, since last year, we are working on a pedagogical grammar, which covers the main aspects of the grammar of Moose Cree (obviation, animacy, verb classes, conjugations, orders, word formation, etc.) presented via narrations and tuning to a user-friendly non technical terminology. Thus, instead of presenting the grammatical concept, a story (a legend, a narration, slice of life, etc.) is used to illustrate this concept in context. This textbased approach to learning the grammar of Moose Cree implies several challenges such as the progression of the contents, the delimitation of the units, the amount of grammatical concepts that a text can convey, among others.

In this talk, we will first discuss the pedagogical grammar creation procedure, by presenting the framework used, namely Cognitive linguistics, applied to additional language learning context. For instance, obviation is equated with the notion of reference points (Langacker, 1993), a cognitive human ability. We also follow Talmy's typology (2000) of motion verbs to teach their verbal structure in which the initial encodes the path, the medial the site, and the final the manner of motion (York, 2010). Next, we will present an experimental study we are putting together to verify if this type of semantic information promotes morphological awareness in word recognition. Finally, we will expose the challenges such an endeavour encompasses.

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## Postposed preverbs and pre-nouns in M eskw aki

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As their name suggests, M eskw aki preverbs typically precede the verb stems which they modify. However, in rare instances a preverb follows a verb. This can happen even when the preverbs in question never otherwise occur as free particles. Consider the following examples:

(1) sainihia ki-š[ʔ].

"He already signed it."

(2) o niki-ši=meko tēpiwa wiče notiw a či, ini=na hkačie h=mačina tiwa či wepi

"And then after they'd had plenty of time to enjoy life together, then next they fell to challenging each other."

The M eskw akianimate intransitive verb stem *sainihi-* is a borrowing of English 'sign'. In example (1), taken from a spoken discussion, it's inflected for a 3rd person animate proximate singular subject in independent indicative mood. In (1) the verb stem *sainihi-* is modified by the perfective particle *ki-ši* (with voiceless final vowel here deleted). Apart from a handful of examples of this type, *ki-ši* never occurs as a freestanding word.

The M eskw akianimate intransitive verb stem *mačina ti-* means 'challenge each other'. In example (2), taken from a narrative written by Alfred Kiyana, it's inflected for a 3rd person animate proximate plural subject in aorist conjunct mood. In (2) the verb stem *mačina ti-* is modified by the inceptive particle *wēpi*. This is the only example of *wēpi* as a freestanding word I have encountered to date.

Just as M eskw aki preverbs occasionally follow their verbs, M eskw aki pre-nouns occasionally follow their nouns. Consider the following example:

(3) nye w enw i=ča hiahkan ki-šekwe no sike wa m am i-ših a nika ni

"Verily, the head ceremonial attendant applies smoke four times during the entire day."

The M eskw akianimate noun stem *m am i-ših-* means 'ceremonial attendant'. In example (3), taken from a narrative written by George Black Cbud and translated by Truman Michelson, it's inflected for an animate proximate singular person. In (3) the noun stem *m am i-ših-* is modified by a particle *nika ni* meaning 'in the lead, on ahead, in front of; in future'. As a freestanding particle, *nika ni* typically would have modify the verb. Here, however, as Michelson's translation shows, it has to be construed with *m am i-ših-* and hence must be a postposed pre-noun.

I propose to give an account of why these postposed preverbs and pre-nouns might exist in M eskw aki and what work it is they might be doing.

## Cree Animacy-Inanimacy Hierarchy: A Conspectus

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Like all Algonquian languages, Cree distributes its stock of nouns over two classes: animate and inanimate. Most studies of Cree grammar describe these classes in semantic terms, observing that all terms for humans, animals, spirits, and trees, plus some others, such as those for 'snow' or 'pipe,' are animate, while all others are inanimate. While this description is obviously correct, Cree nouns can also be put on a 4-point hierarchy scale, depending on their morphological valence with regard to whether or not they allow markers for the vocative or obviative, or employ the suffix *-ipan* 'deceased,' and what type of plural or locative marker they employ, as per the following chart:

high:	(1) humans	Animate
	(2) animals	
	(3) trees; remaining (only partially classifiable) animates	
low	(4) inanimates	Inanimate

All animates (1)-(3) mark the plural with *-ak*, while the inanimates (4) select *-a*. Also, (1)-(3) employ the obviative marker *-a*, which the inanimates do not (so that the inanimate obviative is identical to the proximate). Categories (1)-(2) select the locative marker *-inâhk* 'among, at the place of,' while (3)-(4) select *-ihk* 'in, on, at.' Only category (1) allows formations with the 'deceased' marker *-ipan* (*nin osôm* 'my grandfather' > *nin osôm ipan* 'my late grandfather,' *aw âsis* 'child' > *aw âsis ipan* 'a deceased child') and with the plural vocative/honorific *-itk* (*nin osôm itk* 'my grandfathers!', *aw âsis itk* 'children!'). Category (1) also allows formation of singular vocatives by various morphological means, e.g., *nin osô* 'my grandfather!', *nistês* 'my older brother' > *nistêsê* 'my older brother!', *nikâw iy* 'my mother' > *nêkâ* 'my mother!', *nitôtêm* 'my friend' > *nitôtêm* [no formal change] 'my friend!'). These various operations are listed below:

	(1) my grandfather'	(2) 'duck'	(3) 'pipe'	(4) 'shoe'
Proximate	<i>nin osôm</i>	<i>sîsîp</i>	<i>ospw âkan</i>	<i>maskisin</i>
Obviative	<i>nin osôma</i>	<i>sîsîpa</i>	<i>ospw âkana</i>	<i>maskisin</i>
Plural	<i>nin osôm ak</i>	<i>sîsîpak</i>	<i>ospw âkanak</i>	<i>maskisina</i>
Locative	<i>nin osôm inâhk</i>	<i>sîsîp inâhk</i>	<i>ospw âkanihk</i>	<i>maskisinhk</i>
Deceased	<i>nin osôm ipan</i>	_____	_____	_____
Vocative (P)	<i>nin osôm itk</i>	_____	_____	_____
Vocative (S)	<i>nin osô</i>	_____	_____	_____

As is to be expected, there is some occasional "leakage" between these categories, in that certain dialects or dialects allow *-ihk* on terms for animals, e.g., *atin (w)* 'dog' > *atin ohk* 'on a dog.' Also, *m ahihkan* 'wolf' allows *nîcim ahihkan itk* 'my fellow-wolves!', where a group of animals is addressed in human terms, but on the whole, cases like these do not vitiate the above scheme.

## Blackfoot reflexes of Proto-Algonquian clusters in \*P and \*h

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This paper examines Blackfoot reflexes of Proto-Algonquian (PA) clusters beginning with \*P and \*h. Contrary to Berman's (2006) claim that the first member of true PA clusters always reduces to Blackfoot \*h or \*ss, I show that PA \*P is preserved as a glottal stop in some environments. Consequently, Blackfoot maintains a distinction between PA \*Pr, \*hr, and \*hT.

### Reconstructions and sound changes

I present data showing that PA \*P is preserved as a glottal stop in Blackfoot before \*s, \*T, and \*r, as in (1). The cluster \*hr found in \*re:hre; 'breathe' becomes Blackfoot t, as in (2). All other clusters in \*P or \*h merge to ss after \*i, \*i:, or word-initial \*e > \*i and elsewhere. This is the same pattern of reflexes of other PA clusters in Blackfoot (Berman 2006:266).

- (1) a. \*nekw i:sa 'my son' (Bloomfield 1946:#38) > nóko'sa  
b. \*nePT- 'my elder brother' (Michelson 1935:136) > ní'sa 'elder brother'  
c. \*aPrapya 'net' (Aubin 1975:#162) > a'si:pa 'thread, sinew used for sewing'
- (2) \*re:hre; 'breathe' (Bloomfield 1946:#46) > saitam i- (Pikani), sitam i- (Kainai)

This paper confirms earlier claims that \*PT and \*Ps become Blackfoot Ps (Prouk 1989; Taylor 1960). However, I go beyond previous studies to show that these sound changes are regular, with multiple reconstructions for each.

### Consequences for Blackfoot phonological archaisms

Blackfoot preserves phonological distinctions in clusters in three ways. First, the clusters \*Ps, \*PT, and \*Pr remain distinct from \*hs, \*hT, \*hr. Second, \*r and \*T, which merge elsewhere, remain distinct following \*h: \*hr > t but \*hT > ht, sst. Third, \*Pr > Ps and \*hr > [t] are distinct in Blackfoot. Although the sound changes in this paper show that Blackfoot preserves phonological archaisms, these distinctions do not establish phonological innovations which would evidence a Proto-Algonquian subgroup which excludes Blackfoot, such as that proposed in Goddard (2015).

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