

# The Acquisition of Obviation in Northern East Cree

Evidence from Possessive Constructions

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This study presents an initial investigation of the first language (L1) acquisition of obviation in an Algonquian language by focusing on possessive constructions in Northern East Cree (NEC).<sup>1</sup> In contrast to the findings of research across a range of typologically diverse languages, the acquisition of obviative inflection in possessives does not clearly hinge upon consistency of inflectional marking across nominal types and categories of nouns, but children largely follow expected patterns regarding bare possessives, age of acquisition, and errors in production.

## **Northern East Cree**

East Cree (ISO 639-3 *crl*) is spoken in nine Québec communities, and the northern dialect is found in four: Chisasibi, Wemindji, Whapmagoostui, and Eastmain (Junker et al. 2012). Data for this study come from Chisasibi and were collected during 2004–2007, when many children were still acquiring NEC as an L1 (Brittain et al. 2007).

## The Acquisition of Polysynthesis and Possession

Polysynthetic languages are underrepresented in L1 acquisition research (see, e.g., Kelly et al. 2014). Outside of decades-long work on Inuit languages (Allen 2017), for instance, the L1 acquisition of most of Canada's Indigenous languages is unexplored territory.

However, the Chisasibi Child Language Acquisition Study (CCLAS) ([mun.ca/cclas](http://mun.ca/cclas)) has examined the L1 acquisition of NEC since 2004. Brittain et al. (2007) provide a description of CCLAS history and methodology. CCLAS has primarily approached the acquisition of phonological elements (e.g., Rose et al. 2010; Swain 2008) and verb types/inflection (Johansson 2012; Terry 2010), rather than nominal inflection. This focus resembles the general tendency in linguistic approaches to polysynthesis, which often center on verb structure and/or phonological considerations such as fusion or prosodic wordhood (see, e.g., various chapters in Fortescue et al. 2017).

Yet nominal elements in polysynthetic languages can also have multifaceted morphological structure, particularly in marking the possessee in possessive constructions (Mithun 1999). The acquisition of possessive marking in polysynthesis has largely been ignored, especially compared to the body of cross-linguistic research on the acquisition of encoding possession.

For example, it is well established that children from a young age understand aspects of the concept of possession, and they express possession before they have acquired their target language's system of encoding possession (e.g., Golinkoff and Markessini 1980; Tomasello 1998). The acquisition of this encoding has received treatment across a variety of non-polysynthetic languages, including English, French, German, Greek, Hebrew, and Japanese (e.g., Brown 1973; Clancy 1985; Eisenbeiß et al. 2009; Leroy-Collombel and Morgenstern 2012). One important pattern that has emerged from this work (Marinis 2016) is that children initially omit grammatical marking for possession (e.g., adpositions or case marking), and mastery of encoding possession can take a few years.

No dedicated study has expressly approached the acquisition of possessive encoding in polysynthetic languages, but some similar patterns can be found in existing literature. For example, Feurer (1980) describes a Mohawk-speaking child at age 2;10 producing possessors with uninflected nouns as possesseees (p. 31).<sup>2</sup> Feurer also reports that this child acquires possessive inflection "late," although no age is given (p. 35). Children acquiring Mayan languages have also expressed possession early but without obligatory grammatical marking (e.g., Pye 1992). For example, Brown (1998:738) reports two Tzeltal-speaking children before age 2;05 producing

**TABLE 1.** Obviative suffixes

ANIMACY	SINGULAR	PLURAL
Animate	iiyikh 'frog/frogs'	
Inanimate	ashtutiniyu 'hat'	ashtutinh 'hats'

combinations of possessor and possessee lacking inflection, and Pye (1979:460) describes similar constructions from a K'iche-acquiring child around age 2;09.

No research has explored how children acquiring Algonquian languages master the mechanics of obviative inflection in possession, so general findings from the cross-linguistic acquisition of inflection can provide some clues into how the process may unfold in NEC. Deen's (2012) review offers some useful rules of thumb: (1) Regular inflectional systems are easier to acquire, and children acquire them more rapidly than irregular systems (e.g., systems with syncretism in marking or exceptions to marking); (2) children should have mastery of inflection by about age 5; and (3) errors of omission (of inflectional material) are much more common than errors of commission.

### Obviation in Possession: A Quick Overview

A famously Algonquian phenomenon, obviation, distinguishes between third-person referents in a particular syntactic or discourse span (see, e.g., Bloomfield 1946). The workings of obviation are multidimensional and dependent upon syntactic and discourse factors (e.g., Dahlstrom 1996; Goddard 1990; Hasler 2002; Russell 1996), but possession creates an obligatory morphosyntactic context for obviation (e.g., Rhodes 1990): In constructions with a third-person possessor, the possessee must be designated obviative.

NEC nouns take a suffix that encodes their obviative status. Adapted from Junker et al. (2013), Table 1 lays out the inflectional paradigm for obviation. Animate nouns take only *-h*, with no marking distinguishing between singular and plural referents. Inanimate singular nouns can take the suffix *-(i)yu*, while inanimate plurals take an *-h* that is homophonous with the animate obviative suffix.

The final *-h* involved in obviation is indeed a phonemic /h/, which surfaces in particular ways across different phonetic environments. Readers are encouraged to review work by Dyck et al. (2006), O'Neill (2013), Rose et al. (2010), and Swain

(2008) for more on the phonetics involved. As this body of work has shown, stress/ accent is the consistent phonetic correlate for final *-h*: NEC nouns by default have either antepenultimate or penultimate stress, but words that take final *-h* all have stress on the final syllable.

From an acquisitionist perspective, obviative marking on nouns presents a particular set of challenges for children: Some nouns as possessors of third persons always receive overt obviative marking, but others do not. This distinction hinges upon two factors:

1. **Animacy** (i.e., noun class) of the possessee
2. Whether the **possessor** is **obviative**

ANIMATE possessors of third persons bear an obviative suffix. A demonstrative agreeing with the possessee takes an obviative marker, too, as in (1).<sup>3</sup>

- (1) Aniyaah maa (name) utaamh naatih  
 ani-yaah          maa          (name)    u-taam-h    naa-tih  
 DEM.DIST-OBV    EMPH        N            3-dog-OBV    DEM.REM-LOC  
 '(Name)'s dog there' (Adult, Bl.14, 100)<sup>4</sup>

Adapted from Junker (2003), (2)–(4) illustrate that overt obviative marking works much differently for INANIMATE possessors: An inanimate noun does not bear an obviative suffix when it is possessed, unless the possessor is also obviative (Junker and Blacksmith 2001; Junker 2003). In (2) the third-person possessor is proximate, so the possessed noun *utashutin* 'her/his hat' carries only the person prefix without an obviative suffix. In fact, the presence of the inanimate singular obviative suffix in (3) precludes the reading in (2).

- (2) Waapihtim utashutin  
 waapihtim    ut-ashtutin  
 see.TI 3-hat    see.TI  
 'S/he sees her/his (own) hat.'
- (3) Waapihtim utashutiniyu  
 waapihtim    ut-ashtutin-iyiu  
 3-hat-OBV  
 \*'S/he sees her/his (own) hat.'

In (4), however, the possessor of the hat is necessarily obviative because the subject of the verb is proximate. Here the possessee does indeed bear an obviative suffix, but this morpheme does not encode the obviative status of the possessee. Although this obviative suffix has been referred to as ‘further obviative’ marking (e.g., Hockett 1966), others convincingly argue that the suffix actually indexes the obviative status of the possessor (Bloomfield 1946; Wolfart 1978).

- (4) Waapihtimwaau utashtutiniyu  
 waapihtim-w-aa-u ut-ashtutin-iyiu  
 see.TI-REL-DIR-3 3-hat-OBV  
 ‘S/he sees her/his (someone else’s) hat.’

The presence of this obviative possessor in (4) is also signaled by relational morphology on the verb. A relational morpheme encodes an additional third-person entity (most often in the role of possessor) and follows the TI stem, which is then followed by a TA theme sign and person inflection. Because it occurs only three times in the speech sampled for the present study (Section 5), relational morphology is not discussed further here, but is addressed more fully by Junker (Junker 2002, 2003).

Constructions with obviative possessors are not frequent in the CCLAS corpus, but examples (5) and (6) from the corpus illustrate the marking involved. Prior to (5), Daisy has pulled a small toy garbage can out of a toy house, and the adult remarks that this garbage can is for throwing things away. The can is established as proximate, and in (5) the adult asks Daisy what is being thrown away, which establishes the object *chaakwaan* ‘what’ as obviative.

- (5) Chaakwaayiu wiyaapinichaat  
 chaakwa-yiu wiyaapinichaat  
 what-OBV s/he.throwing.it.away  
 ‘What is s/he throwing away?’ (Adult, B1.01, 576)

The child answers with the adult-like obviative form *maatiwaakinishh* ‘(little) toys’, and the adult replies in (6). Because the garbage can is proximate, the possessor of the toys must be obviative. Therefore, the inanimate possessee in (6) receives the obviative possessor suffix.

- (6) Awaayiuḥ umaatiwaanishiḥiuḥ  
 awaa-yiuḥ u-maatiwaan-ish-iyiu-h  
 who-OBV 3-toy-DIM-OBV-PL  
 ‘Whose little toys?’ (Adult, B1.01, 580)

Thus, the distinction between animate and inanimate nouns presents a specific challenge that children must navigate: The obviative for possessed animates indicates a property of the possessee, but the obviative suffix for possessed inanimates encodes a property of the possessor.

However, a demonstrative provides the crucial morphosyntactic clue within the noun phrase to indicate the covert obviative status of a possessed inanimate. For example, in (7) the demonstrative *aniyaa* bears an obviative suffix in agreeing with *uskaat* ‘his leg’.

- (7) Chichiḥ waapihtimwaan aa aniyaa uskaat  
 chi-chiḥ-waapihtim-w-aa-n aa ani-yaa u-skaat  
 2-PST-see.TI-REL-DIR-SAP Q DEM.DIST-OBV 3-leg  
 ‘Did you see his leg?’ (Adult, B1.01, 379)

Demonstratives can also stand alone as overtly obviative possesseees in nominal predicate constructions (Déchaine 1997), without the presence of a noun referring to the possessee. Examples (8) and (9) show demonstratives in equational null-copula constructions. The proximate form in (8) means that the demonstrative and the name “Daddy” have coreference. However, in (9) the demonstrative takes an obviative form and signifies the possessee of a third-person possessor.

- (8) Daddy an  
 Daddy an  
 N DEM.DIST  
 ‘That is Daddy.’ (Adult, A1.03, 631)

- (9) Dora aniyaa  
 Dora ani-yaa  
 N DEM.DIST-OBV  
 ‘That is Dora’s.’ (Adult, A1.12, 319)

**TABLE 2.** Obviative marking on possessives

TYPE OF POSSESSEE	TAKES OVERT OBVIATIVE SUFFIX?
Demonstrative (as pronoun or modifier)	Yes
Animate noun	Yes
Inanimate noun	No
Inanimate noun (with obviative possessor)	Yes

Finally, English nouns inflected with Cree morphology occur in both child and child-directed speech in the CCLAS corpus (e.g., Pile 2018). There is no existing comprehensive account of how English nouns pattern in NEC, but the adult speech in CCLAS indicates that English nouns are categorized according to the animacy of their Cree counterparts. For example, English ‘camera’ occurs with inanimate intransitive verbs, as would inanimate NEC noun *misinaapiskihikin* ‘camera’, and English ‘earring’ is treated the same as animate noun *taapishaahun* ‘earring’. Accordingly, this analysis posits that English nouns in the target grammar of NEC should behave the same as Cree nouns with obviative inflection in possessive constructions.

Table 2 summarizes the target system of obviative marking with possessives, and the present study poses the question: How do children acquire this system?

## Method

All data for this study come from CCLAS video recordings and transcripts involving three child participants acquiring NEC as their first language. Each recording features one child and an adult in a naturalistic home setting, with an individual recording session lasting for approximately 30 to 50 minutes. A regular expression was used to search through the CCLAS corpus and find all child utterances with a third-person possessor.

The youngest child, codenamed Ani, produced 23 such constructions from age 2;03 to 4;00. The middle child, codenamed Daisy, produced 167 from age 3;08 to 5;10. The oldest child, codenamed Billy, produced 50 from 4;05 to 5;10. All of Ani’s and Billy’s constructions are analyzed here. To achieve more parity between the children, Daisy’s recording sessions were randomly sampled, which resulted in a final count of 56 possessives across eight sessions. The age ranges of each child are

represented in Table 7 of the appendix, and the number of possessive constructions per age for each child is tallied there in Table 8.

Each possessive construction was coded along several dimensions, which are listed in Table 9 of the appendix. All coding was done in Phon (phon.ca), a freely available open-source software program developed for language acquisition data management and phonological analysis (Rose et al. 2006; Rose and MacWhinney 2014). After coding, utterances were exported for analysis in R (r-project.org), an open-source software package for statistical computation and graphical representation of data.

The analysis presented here is purely descriptive, so no measures of statistical association were calculated. A morphological pattern is considered here to be acquired if it is present in 80 percent of obligatory contexts at a given age. This 80-percent threshold represents a compromise between Brown's (1973) well-known 90-percent threshold for English morphology and Pedro's (2015) 75-percent threshold for Q'anjob'al Maya.

## Research Questions and Results

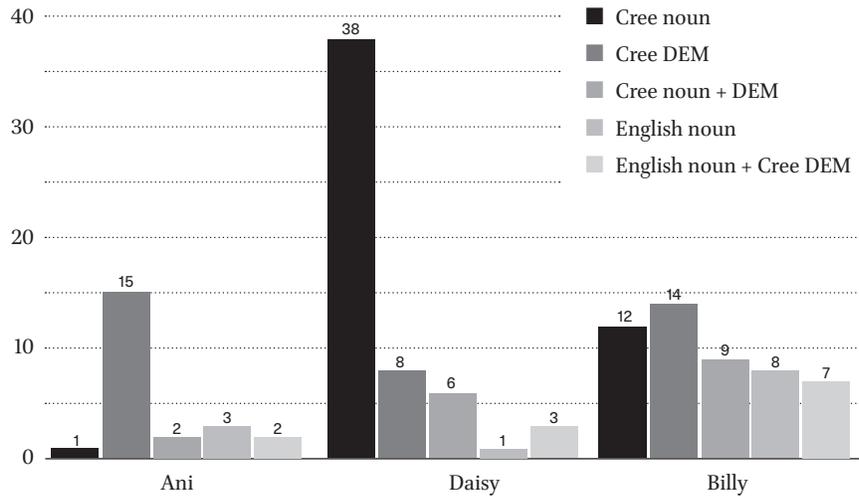
This section poses the following research questions (RQ) and offers results and discussion for each. Each RQ pertains only to possessive constructions with third-person possessors.

### *RQ1: Which Types of Possesseees Do the Children Produce?*

As Table 2 shows, the type of possessee largely dictates how overt marking for obviation applies. Figure 1 counts the types of possesseees produced by each child.

Each child produces a different range of possessee types. The majority of Ani's tokens (15/23, 65.2 percent) consist of a demonstrative only, as in (10).<sup>5</sup> Such constructions behave very consistently with marking obviation, regardless of the grammatical animacy of the referent. However, Ani does produce nouns in about one-third of her possesseees (8/23, 34.8 percent), as in (11).

- (10) Maaniyaa Dora  
 maani-yaa        Dora  
 DEM.DIST-OBV    N  
 'That is Dora's.' (Ani, 2;03, A1.06, 793)

**FIGURE 1.** Types of possessives produced by each child.

- (11) Dora piyichiis  
 Dora \*Ø-piyichiis-\*Ø-<sup>3</sup>Ø  
 N 3-pants-POSS-OBV  
 'Dora's pants' (Ani, 2;07, A1.12, 2)

On the other hand, the vast majority of Daisy's possessives contain nouns (48/56, 85.7 percent) as in (12), which means she contends to a much larger extent with the difference in marking between animate and inanimate nouns. She also produces demonstratives in her possessives (17/56, 30.4 percent), which need to inflect in a more consistent fashion.

- (12) Umischisinishh  
 u-mischisin-ish-h  
 3-shoe-DIM-PL  
 'Her little shoes' (Daisy, 3;08, B1.01, 659)

Billy also produces a vast majority of noun possessives (36/50, 72 percent), as in (13). Most of his possessives also employ demonstratives (30/50, 60 percent), which inflect for obviation regardless of animacy.

**TABLE 3.** Demonstrative tokens with required obviative suffix

CHILD	ON-TARGET	OFF-TARGET/UNSURE	ACCURACY
Ani	17	2	89.5%
Daisy	14	3	82.4%
Billy	30	1	96.8%

- (13) Chiih uhtinaakuu daycare ukaawih  
 chiih-uhtin-iku-u daycare u-kaawi-h  
 PST-take.TA-INV-4>3SG ENG 3-mother-OBV  
 ‘His mother went to get him at daycare.’ (Billy, 4;07, B3.06, 573)

Given this landscape of possessee types per child, the remaining RQs focus on how children acquire various aspects of inflecting obviative possesseees.

*RQ2: How Do Children Mark Their Demonstratives in Possessives?*

This question centers on the most straightforward aspect of obviative marking in possession: Any demonstrative associated with a possessee should receive overt obviative marking. Table 3 tallies the tokens of such demonstratives produced by the children. Each demonstrative was counted as either (1) ON-TARGET, which means it received an obligatory obviative suffix, or (2) OFF-TARGET/UNSURE, which means either the demonstrative was lacking the required suffix, or it was impossible to discern from the recording whether the suffix was present. For each child, the number of on-target tokens was divided by the total number of tokens to calculate an accuracy rating.

Each child makes at least one clear error, and the errors all involve the omission of obligatory inflection: In (14)–(16), each child produces a demonstrative missing the required suffix.

- (14) Waapim maa maau ubedim nimaa  
 waapim maa maau- $\emptyset$  u-bed-im nimaa  
 see.TI EMPH DEM.PXL-OBV 3-ENG-POSS right  
 ‘Look, this is her bed, right?’ (Ani, 4;00, A1.35, 79)

- (15) aai uwiichaawaakin h uu  
 aai u-wiichaawaakin-h uu-<sup>\*</sup>∅  
 HES 3-friend-OBV DEM.PXL-OBV  
 'Ah . . . this is her friend.' (Daisy, 4;06, B1.15, 807)

- (16) usledim uu Dora  
 u-sled-im uu-<sup>\*</sup>∅ Dora  
 3-ENG-POSS DEM.PXL-OBV N  
 'This is her sled, Dora's.' (Billy, 5;06, B3.17, 365)

Each child mostly produces on-target demonstratives, but for Ani it is difficult to pinpoint an age of acquisition for this aspect of obviative inflection. She produces 15/15 correct demonstrative tokens at age 2;07, and her next demonstrative at age 2;08 is also on-target. But after this age, Ani produces no demonstratives involved with third-person possessors until age 4;00, and both of these tokens are not on-target.

Daisy's only demonstrative token at age 3;08 is correct, and three of four are correct at 3;09, but only one of her two tokens at 4;06 is on-target. During the next sampled recording session at age 4;10, though, all five of her demonstratives are on-target. This accuracy rating exceeds the 80-percent threshold for identifying acquisition.

Billy produces all on-target demonstratives until his final and only production at age 5;06, in (16). Given his high accuracy rate, it is possible that Billy has acquired obviative marking with demonstratives even before his first recording session at age 4;05.04.

In summary, it is unclear whether Ani has acquired the pattern of obviative inflection with demonstratives, but the two older children demonstrate a command of this obviative inflection by 5;00, which accords with cross-linguistic expectations.

### *RQ3: What Is the Animacy of the Children's Possesseees?*

This question focuses on the animacy balance of nouns in each child's speech. Table 4 presents a frequency count of the number of noun tokens produced by each child. English nouns are considered separately but categorized according to their putative Cree animacy.

Each child produces a different number and proportion of tokens across the

**TABLE 4.** Animacy of children's noun tokens as possessees

CHILD	ANIMATE NOUNS		INANIMATE NOUNS		TOTAL
	CREE	ENGLISH	CREE	ENGLISH	
Ani	1	0	3	5	9
Daisy	22	3	22	1	48
Billy	9	8	16	3	36

**TABLE 5.** Animate noun tokens with required obviative suffix

CHILD	ON-TARGET	OFF-TARGET/UNSURE	ACCURACY
Ani	0	1	0.0%
Daisy	21	1	96.0%
Billy	9	0	100.0%

animacy categories, and each child contends with the discrepancies in obviative marking across the two categories to a different extent.

Compared to the other children, Ani produces relatively few common nouns as possessees (just nine). The majority of these are inanimate (8/9 tokens, or 88.9 percent). This includes all five of her English noun tokens: 'bed', 'chair' (three tokens), and 'purse'. Her only animate noun is the Cree word *piyichüis* 'pants' in (11).

The two older children produce a nearly balanced picture of animacy. Daisy has 25 animate (52.1 percent) and 23 inanimate tokens (47.9 percent). Just one English token 'pencil' is inanimate, and her remaining three English tokens are all productions of animate 'friend'. Billy produces 17 animate (47.2 percent) and 19 inanimate tokens (52.8 percent). Three of these inanimates are English: 'toothbrush', 'goaliestick', and 'sled'.

#### *RQ4: How Do the Children Mark Their Animate Possesseees?*

Animate nouns possessed by third persons should always take an overt obviative suffix. Table 5 tallies and codes the animate noun tokens produced by each child.

Ani produces only one animate possesser, and here she omits the obligatory obviative marking in (11). This bare possesser represents not just a lack of obviative marking but a complete omission of possessive inflection. In fact, until age 3;06

Ani's common nouns as possessees are missing all such inflection, including the person prefix, possessive suffix, and obviative marking. These productions resemble cross-linguistic findings, where children's initial possessive constructions lack obligatory grammatical encoding. From her sparse production, one cannot say that Ani has productively acquired obviative marking for animate nouns.

However, the two older children provide much more solid evidence of acquisition. Daisy produces one animate noun correctly marked as obviative in her earliest session, shown in (17). Her next 19 tokens are also correct, from age 3;09 to 4;10. Given her consistently high accuracy rating across time, Daisy acquired the inflectional pattern of marking obviative animate possessees as early as age 3;08.

- (17) Upiipimishh  
 u-piipii-m-ish-h  
 3-baby-POSS-DIM-OBV  
 'Her little baby' (Daisy, 3;08, B1.01, 581)

Billy correctly puts an obviative suffix on all nine of his animate possessees. These data begin at age 4;06, with (18) and (19). Given his accuracy rate, it is possible that Billy has acquired the pattern of marking animate nouns before 4;06.

- |  |   |
|--|---|
| <p>(18) Ustaash<br/>         u-staas-h<br/>         3-older.brother-OBV<br/>         'Her older brother'</p> | <p>(19) Nimimaah aai ukaawiih<br/>         nimimaah aai u-kaawii-h<br/>         NEG HES 3-mother-OBV<br/>         'No, his mother.' (Billy, 4;06, B3.05, 66/97)</p> |
|--|---|

*RQ5: How Do the Children Mark Their Inanimate Possesseees?*

Inanimate nouns with proximate possessors must not bear an overt obviative suffix. Only two of the 129 child possessives in this study involve obviative possessors. Table 6 tallies the children's inanimate possessees with proximate possessors.

At 2;07 Ani's two clearly off-target inanimate possessees lack the obligatory person prefix and possessive suffix, which indicates an omission of all inflectional material on possessees—not just obviative marking. However, at age 4;00 Ani produces five English tokens ('bed', 'chair' (three tokens), and 'purse') inflected with a person prefix and possessive suffix, and they are correctly missing an obviative

**TABLE 6.** Inanimate noun tokens correctly lacking overt obviative suffix

CHILD	ON-TARGET	OFF-TARGET/UNSURE	ACCURACY
Ani	5	3	62.5%
Daisy	22	1	95.7%
Billy	18	0	100.0%

suffix; see (20). Although she produces few tokens at this age, her accuracy indicates that Ani has likely acquired the pattern of marking obviative inanimate possessives by 4;00.

- (20) Awaan uyaayiu upurseim  
 awaan u-yaayiu u-purse-im  
 who DEM.PXL-OBV 3-ENG-POSS  
 ‘Whose purse is this?’ (Ani, 4;00, A1.35, 257)

Both of Daisy’s inanimate tokens are on-target in her first recording session at 3;08, and at 3;09 all six of her tokens are also on-target. In (21), for example, she correctly inflects the possessee with a person prefix without an obviative suffix. Her verbal morphology also indicates that she is correctly navigating an obviative possessee argument.

- (21) Chiih wiiminishikiniwiyiu uskaat  
 chiih-wiih-minish-ikiniwi-yiu uskaat  
 PST-want-remove.by.blade.TI-PASS-OBV 3-leg  
 ‘They wanted to cut off his leg.’ (Daisy, 3;08, B1.01, 353)

With this high level of accuracy, Daisy demonstrates acquisition of the pattern of marking obviatives as early as 3;08.

Billy also shows clear mastery of this pattern, with all of his 18 noun tokens correctly lacking an obviative suffix. His first such construction in (22) comes in his first recording session at 4;06. This example also demonstrates Billy’s command of differential marking patterns between demonstratives and nouns: The demonstrative modifying the noun needs an obviative suffix while the noun does not.

- (22) Awaan aniyaah utoothbrushim  
 awaan ani-yaah u-toothbrush-im  
 who DEM.DIST-OBV 3-ENG-POSS  
 'Whose toothbrush is that?' (Billy, 4;06, B3.05, 533)

*RQ6: How Do the Children Mark Inanimate Nouns with Obviative Possessors?*

Inanimate nouns with an obviative possessor should take an obviative suffix. Daisy and Billy each produce one construction with an obviative possessor. In Daisy's utterance the possessee is only a demonstrative pronoun, so this construction does not require her to apply obviative inflection to a noun with an obviative possessor. Billy, however, produces a noun with an obviative possessor in (23). Here he applies the proper suffix to the obviative possessor 'her little baby' as well as to the inanimate possessee ('bottle').

- (23) Uchuuchuuyiu upiipiimishh  
 u-chuuchuu- $\emptyset$ -yiu u-piipii-m-ish-h  
 3-bottle-POSS-OBV 3-baby-POSS-DIM-OBV  
 'Her little baby's bottle' (Billy, 4;08, B3.07, 46)

## Conclusions

This study has clear limitations stemming from its small sample size, especially because interchild variability is well established in language acquisition research and will have an even greater effect within small samples. Nonetheless, some circumscribed conclusions and implications may be drawn.

First, Ani's early productions of possessives follow cross-linguistic patterns in omitting obligatory marking for possession. In fact, until age 3;06 her common nouns as possessee lack all morphological encoding for possession. Only about six months later does Ani provide evidence that she has acquired her target language's inflectional system for encoding possession. The two older children do not produce bare possessee, but this is likely a consequence of the fact that their data begin at a later age.

Second, consistency in marking across categories does not have a clear impact on the acquisition of obviation in possessive constructions. Obviation manifests

differently between demonstratives and nouns, where discrepancies in marking hinge upon grammatical animacy. The youngest child does not show obvious mastery of inflecting demonstratives, which take an obviative suffix regardless of the animacy of the referent. Animate nouns with third-person possessors always take an obviative suffix, but Ani produces so little evidence that no conclusion can be drawn there. Ani's inanimate nouns are correctly missing inflection at early ages, but this is a reflection of her global omission of possessive morphology.

Consistency also has a nonlinear relationship to Daisy's acquisition. Her mastery of demonstratives follows an unclear path, as she zigzags in accuracy until age 4;10. Perhaps this is less a function of inflectional consistency than of the multidimensionality of demonstrative elements, which involve more complex contextual considerations than common nouns. In other words, maybe her obviative marking on demonstratives lags because demonstratives are harder to master in general. Daisy shows high accuracy in her production of both animate and inanimate possessives from age 3;08, so the difference between animacy categories in inflectional marking does not seem to make a difference—unless it had some effect on her development before she appears in CCLAS data. The same can be said for Billy, who produces demonstratives and nouns of both genders with extreme accuracy, but whose data begin at age 4;05. This limitation on available data makes it difficult to see where the acquisition of NEC fits with cross-linguistic patterns regarding the impact of regularity on the acquisition of inflection.

Third, the development of obviative inflection for all three children generally supports the cross-linguistic rule of thumb that inflectional elements should be acquired by age 5;0. Although Ani's path is unclear regarding demonstratives and animate nouns, she demonstrates command of obviative inflection with inanimate nouns by 4;00. Daisy shows mastery of demonstrative inflection by 4;10, and her inflection of animate and inanimate nouns is highly accurate beginning at 3;08. Billy produces accurate demonstratives at 4;05 and accurate nouns of both genders at 4;06.

Finally, errors in the children's language production are relatively limited, and they tend to be errors of omission rather than commission. This also accords with cross-linguistic expectations.

## Appendix

**TABLE 7.** Age ranges in the sample

	CHILD AGE						
	2;03	3;00	3;08	4;00	4;05	5;00	5;10
Ani							
Daisy							
Billy							

**TABLE 8.** Tokens of possessive constructions with third-person possessors

CHILD	AGE	NUMBER OF CONSTRUCTIONS	TOTAL
Ani	2;03.24	1	23
	2;07.06	16	
	2;08.23	1	
	4;00.13	5	
Daisy	3;08.10	4	56
	3;09.22	10	
	4;01.20	8	
	4;06.27	10	
	4;10.03	15	
	5;04.12	1	
	5;07.03	5	
5;10.02	3		
Billy	4;05.04	1	50
	4;06.08	2	
	4;06.23	4	
	4;07.27	1	
	4;08.21	6	
	4;10.08	6	
	5;00.13	8	
	5;03.22	8	
	5;05.23	1	
	5;06.27	4	
	5;10.06	8	
5;10.20	1		
<i>Total</i>			129

**TABLE 9.** Coding scheme

VARIABLES	POSSIBLE VALUES FOR EACH VARIABLE				
	Proximate	Obviative			
Possessor status	Proximate	Obviative			
Possessee type	Cree noun	Cree demonstrative	Cree noun + Cree demonstrative	English noun	English noun + Cree demonstrative
Animacy of possessee	Animate	Inanimate	English noun	Unsure	
Does noun require obviative marking?	Yes	No	Unsure	N/A	
Noun correctly marked?	Yes	No	Unsure	N/A	
Does demonstrative require obviative marking?	Yes	No	Unsure	N/A	
Demonstrative correctly marked?	Yes	No	Unsure	N/A	

N/A, not applicable.

For example, the adult-level possessive construction in (7) would be coded as: *Proximate; Cree noun + Cree DEM; Inanimate; No; Yes; Yes; Yes.*

- (7) Chichiiah waapihtimwaan aa aniyaa uskaat  
 chi-chiiah-waapihtim-w-aan aa ani-yaa u-skaat  
 2-PST-see.TI-REL-TH Q DEM-OBV 3-leg  
 ‘Did you see his leg?’ (Adult, BL01, 379)

#### NOTES

1. I gratefully acknowledge Dr. Julie Brittain of the CCLAS project at Memorial University of Newfoundland for sharing data and insight. I am also grateful for input from Dr. Andrea L. Berez-Kroeker and Dr. Kamil U. Deen at the University of Hawai‘i at Mānoa, as well as to the audience at the 50th Algonquian Conference.
2. Children’s ages are given using the standard format year;month.
3. Unless indicated otherwise, the first lines in all interlinear glosses are in NEC orthography. Double vowel graphemes such as <aa> indicate a phonemic long vowel. Hyphens represent morpheme breaks. Zero morphemes indicate obligatory inflectional

elements that are missing. Glossing follows Leipzig Glossing Rules. Exceptions used here are the following: 4 = animate obviative, DIM = diminutive, DIR = direct, EMPH = emphatic, ENG = English word, HES = hesitation, INV = inverse, N = name, OBV = obviative, POSS = possessive, PXL = proximal, REL = relational, REM = remote, SAP = speech act participant, TA = transitive verb with animate object, TI = transitive verb with inanimate object.

4. Example utterances from CCLAS cited here include the codename for the speaker of the utterance; the age of the child speaker; the corpus and recording session number; and the record number of that utterance. Non-CCLAS participant names are redacted for privacy.
5. Junker and MacKenzie (2003) explain that in nominal predications, 'Set One' demonstratives like *aniyaa* in (9) follow the noun, while demonstratives like 'Set Two' *maaniyaa* precede the noun.

## REFERENCES

- Allen, Shanley E. M. 2017. Polysynthesis in the Acquisition of Inuit Languages. *The Oxford Handbook of Polysynthesis*, ed. by Michael Fortescue, Marianne Mithun, and Nicholas Evans, pp. 449–472. Oxford: Oxford University Press.
- Bloomfield, Leonard. 1946. Algonquian. *Linguistic Structures of Native America*, ed. by Cornelius Osgood and Harry Hoijer, pp. 85–129. Viking Fund Publications in Anthropology, vol. 6. New York.
- Brittain, Julie, Carrie Dyck, Yvan Rose, and Marguerite MacKenzie. 2007. The Chisasibi Child Language Acquisition Study (CCLAS): A Progress Report. *Papers of the 38th Algonquian Conference*, ed. by H. Christoph Wolfart, pp. 1–17. Winnipeg: University of Manitoba.
- Brown, Penelope. 1998. Children's First Verbs in Tzeltal: Evidence for an Early Verb Category. *Linguistics* 36(4):713–753.
- Brown, Roger. 1973. *A First Language: The Early Stages*. Cambridge, MA: Harvard University Press.
- Clancy, Patricia M. 1985. The Acquisition of Japanese. *The Crosslinguistic Study of Language Acquisition*, Volume 1: *The Data*, ed. by Dan Isaac Slobin, pp. 373–524. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Dahlstrom, Amy. 1996. Narrative Structure of a Fox Text. *Nikotwâsik Iskwâhtêm, Pâskihîtpayih! Studies in Honour of H. C. Wolfart*, ed. by John D. Nichols and Arden C. Ogg, pp. 113–162. Winnipeg: Algonquian and Iroquoian Linguistics.
- Déchine, Rose-Marie. 1997. Nominal Predication in Plains Cree. *Papers of the 28th Algonquian Conference*, ed. by David Pentland, pp. 105–135. Winnipeg: University of Manitoba.

- Deen, Kamil Ud. 2012. The Morphosyntax Interface. *The Cambridge Handbook of Child Language*, ed. by Edith L. Bavin, pp. 259–280. Cambridge: Cambridge University Press.
- Dyck, Carrie, Julie Brittain, and Marguerite MacKenzie. 2006. Northern East Cree Accent. *Proceedings of the 2006 Annual Conference of the Canadian Linguistic Association*, ed. by Claire Gurski and Milica Radišić. Toronto: York University.
- Eisenbeiß, Sonja, Ayumi Matsuo, and Ingrid Sonnenstuhl. 2009. Learning to Encode Possession. *The Expression of Possession*, ed. by William B. McGregor, pp. 143–212. Berlin: Mouton de Gruyter.
- Feurer, Hanny. 1980. Morphological Development in Mohawk. *Papers and Reports on Child Language Development* 18:25–42. Stanford, CA: Department of Linguistics, Stanford University.
- Fortescue, Michael, Marianne Mithun, and Nicholas Evans (eds.). 2017. *The Oxford Handbook of Polysynthesis*. Oxford: Oxford University Press.
- Goddard, Ives. 1990. Aspects of the Topic Structure of Fox Narratives: Proximate Shifts and the Use of Overt and Inflectional NPs. *International Journal of American Linguistics* 56(3):317–340.
- Golinkoff, Roberta Michnick, and Joan Markessini. 1980. “Mommy Sock”: The Child’s Understanding of Possession as Expressed in Two-Noun Phrases. *Journal of Child Language* 7(1):119–135.
- Hasler, Laurel Anne. 2002. Obviation in Two Innu-Aimun Atanukana. PhD Thesis, Memorial University of Newfoundland.
- Hockett, Charles F. 1966. What Algonquian is Really Like. *International Journal of American Linguistics* 32(1):59–73.
- Johansson, Sara. 2012. Learning Words Before Learning Grammar: A Case Study of Passives and Unaccusativity in Northern East Cree First Language Acquisition. MA thesis, Memorial University of Newfoundland.
- Junker, Marie-Odile. 2002. La Grammaire des Relations: Constructions Possessives et Obviation en Cri de l’Est. *Actes du Congrès Annuel de l’Association Canadienne de Linguistique 2002*, ed. by Sophie Burelle and Stanca Somesfalean, pp. 145–155. Université du Québec à Montréal, Département de linguistique et de didactique des langues.
- Junker, Marie-Odile. 2003. East Cree Relational Verbs. *International Journal of American Linguistics* 69(3):307–329.
- Junker, Marie-Odile, and Louise Blacksmith. 2001. Obviation, Coreference, and Relational Verb Forms in East Cree. *Papers of the 32nd Algonquian Conference*, ed. by John D. Nichols, pp. 258–268. Winnipeg: University of Manitoba.
- Junker, Marie-Odile, Marguerite MacKenzie, and Julie Brittain. 2012. Comparative Structures

- of East Cree and English. [http://eastcree.org/pdf/Cree\\_English\\_Structure\\_2012.pdf](http://eastcree.org/pdf/Cree_English_Structure_2012.pdf).
- Junker, Marie-Odile, Luci Salt, and Frances Visitor. 2013. East Cree Nouns (Northern Dialect). The Interactive East Cree Reference Grammar. <https://www.eastcree.org/cree/en/grammar/northern-dialect/nouns/inflections-obviative/>.
- Kelly, Barbara, Gillian Wigglesworth, Rachel Nordlinger, and Joseph Blythe. 2014. The Acquisition of Polysynthetic Languages. *Language and Linguistics Compass* 8(2):51–64.
- Leroy-Collombel, Marie, and Aliyah Morgenstern. 2012. Rising Grammatical Awareness in a French-Speaking Child from 18 to 36 Months: Uses and Misuses of Possession Markers. *Journal of French Language Studies* 22(1):57–75.
- Marinis, Theo. 2016. Acquiring Possessives. *The Oxford Handbook of Developmental Linguistics*, ed. by Jeffrey L. Lidz, William Snyder, and Joe Pater. Oxford: Oxford University Press.
- Mithun, Marianne. 1999. *The Languages of Native North America*. Cambridge: Cambridge University Press.
- O'Neill, Katharine. 2013. A Phonetic Study of Word-Final Phenomena in Northern East Cree. MA thesis, Memorial University of Newfoundland.
- Pedro, Pedro Mateo. 2015. The Acquisition of Inflection in Q'anjob'al Maya. Amsterdam: John Benjamins.
- Pile, Stephanie C. 2018. Monolingual Language Acquisition in a Mixed Language Community: A Case Study of Northern East Cree. MA thesis, Memorial University of Newfoundland.
- Pye, Clifton. 1979. The Acquisition of Quiche (Mayan). *Current Anthropology* 20(2):459–460.
- Pye, Michael. 1992. The Acquisition of K'iche' Maya. *The Crosslinguistic Study of Language Acquisition*, Volume 3, ed. by Dan Isaac Slobin, pp. 221–308. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Rhodes, Richard A. 1990. Obviation, Inversion, and Topic Rank in Ojibwa. *Proceedings of the Sixteenth Annual Meeting of the Berkeley Linguistics Society: Special Session on General Topics in American Indian Linguistics*, 101–115. Berkeley, CA: Berkeley Linguistics Society.
- Rose, Yvan, Julie Brittain, Carrie Dyck, and Erin Swain. 2010. The Acquisition of Metrical Opacity: A Longitudinal Case Study from Northern East Cree. *Proceedings of the 34th Annual Boston University Conference on Language Development*, ed. by K. Franich, K. M. Iserman, and L. L. Keil, pp. 339–350. Somerville, MA: Cascadilla Press.
- Rose, Yvan, and Brian MacWhinney. 2014. The PhonBank Project: Data and Software-Assisted Methods for the Study of Phonology and Phonological Development. *The Oxford Handbook of Corpus Phonology*, ed. by J. Durand, U. Gut, and G. Kristoffersen, pp. 308–401. Oxford: Oxford University Press.
- Rose, Yvan, Brian MacWhinney, Rodrigue Byrne, Gregory Hedlund, Keith Maddocks, Philip O'Brien, and Todd Wareham. 2006. Introducing Phon: A Software Solution for the Study

- of Phonological Acquisition. *Proceedings of the 30th Annual Boston University Conference on Language Development*, ed. by D. Bamman, T. Magnitskaia, and C. Zaller, pp. 489–500. Somerville, MA: Cascadilla Press.
- Russell, Kevin. 1996. Does Obviation Mark Point of View? *Nikotwâsik Iskwâhtêm, Pâskihîtpayih! Studies in Honour of H. C. Wolfart*, ed. by John D. Nichols and Arden C. Ogg, pp. 368–382. Winnipeg: Algonquian and Iroquoian Linguistics.
- Swain, Erin. 2008. The Acquisition of Stress in Northern East Cree: A Case Study. MA thesis, Memorial University of Newfoundland.
- Terry, Kevin. 2010. The Emergence of Intransitive Verb Inflection in Northern East Cree: A Case Study. MA thesis, Memorial University of Newfoundland.
- Tomasello, Michael. 1998. One Child's Early Talk about Possession. *The Linguistics of Giving*, ed. by John Newman, pp. 349–373. Amsterdam: John Benjamins.
- Wolfart, H. Christoph. 1978. How Many Obviatives: Sense and Reference in a Cree Verb Paradigm. *Linguistic Studies of Native Canada*, ed. by Eung-Do Cook and Jonathan Kaye, pp. 255–272. Vancouver: University of British Columbia Press.