Failure to Agree in Nishnaabemwin Inverse-marking

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Abstract

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This thesis presents a model of inverse-marking in the Nishnaabemwin (Algonquian) agreement system. An abstract *person hierarchy* ranks discourse participants as 2nd person $>$ 1st person $>$ 3rd person $>$ inanimate, which seems to determine the form of a suffix on the verb stem often called a *theme sign* (Valentine 2001). The highest ranked discourse participant is marked by a prefix on the verb. A so-called DIRECT theme sign appears if the subject outranks the object, while a so-called INVERSE theme sign appears if the object outranks the subject. However, these descriptions imply that agreement mechanisms in the verbal domain obligatorily consult an abstract hierarchy in order to encode a concrete relationship between the subject and object. This is problematic as it requires the controversial property that abstract hierarchies are directly encoded in the grammar.

A growing body of research analyzes languages with person hierarchy effects as complex systems of person agreement (e.g. Bjar and Rezac 2009, Lochbihler 2012, Oxford 2014, Preminger 2014, among others). The model proposed in this paper is an application of Preminger (2014), an analysis originally meant to capture person hierarchy effects in Kichean, a Mayan language. Although Preminger's analysis elegantly accounts for the person hierarchy effects in Kichean, it cannot straightforwardly be extended to Nishnaabemwin inverse-marking.—namely, Preminger's model fails in contexts with two arguments that are speech act participants (i.e. either the speaker or addressee). To fill these gaps, this thesis builds on Oxford (2014) in analyzing Nishnaabemwin inverse-marking patterns as a complex form of object agreement. The proposed model is an agreement system in which two probes work together to license arguments. Though Nishnaabemwin inverse-marking reflects a complex form of object agreement in most cases, the morphosyntactic consequences of failed agreement show that, in some contexts, object agreement is overridden as a result of failed agreement.

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As a History major during my second semester at Concordia, I enrolled in the introductory linguistics class *Language & Mind: The Chomskyan Program* with Professor Charles Reiss. While I really enjoyed the first half of the course—the *Mind* part—the *Language* part convinced me to never go anywhere near syntax again. Five years later, I find myself writing an MA thesis on syntax. I blame—and thank—my supervisors for this.

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Contents

Chapter 1

Introduction

This thesis explores the morphsyntactic processes involved in Nishnaabemwin (Algonquian) inverse-marking. In Nishnaabemwin, an abstract *person hierarchy* ranks discourse participants as 2nd person > 1st person > 3rd person. This abstract ranking seems to determine the form of an affix on the verb stem, often called a *theme sign* (Valentine, 2001). A so-called DIRECT theme sign appears if the subject outranks the object, while a so-called INVERSE theme sign appears if the object outranks the subject.

In the spirit of McGinnis (1999), Béjar and Rezac (2009), Lochbihler (2012), and Oxford (2014), among many, I propose that Nishnaabemwin inverse-marking arises from an agreement system in which two probes work together to license arguments (cf. Oxford 2014; Preminger 2014). This thesis applies the core concepts of the analyses proposed in Preminger (2014) and Oxford (2014) to the inverse-marking patterns in the Nishnaabemwin agreement paradigm. While Preminger (2014) explains person hierarchy effects in the so-called *Agent Focus* constructions in Kichean (Mayan) under the crucial principle that Agree is fallible, his analysis cannot model Nishnaabemwin person hierarchy effects. I extend his analysis to derive Nishnaabemwin inverse-marking patterns by building on the analysis in Oxford (2014), i.e. inverse-marking reflects a complex form of object agreement. I explore the morphosyntactic consequences of failure to Agree, showing that, in some contexts, object agreement is overridden as a result of failed agreement.

Algonquian languages have been the object of study for many historical analyses, resulting in a rich body of research. Algonquian languages are polysynthetic and head-marking; verb forms are complex, and nominals are generally optional. As many Algonquian languages share similar morphosyntactic and phonological properties, Proto-Algonquian has been fairly well reconstructed (e.g. Bloomfield, 1946; Goddard, 1967; Proulx, 1980; Pentland, 1999, among others). More recently, theoretical approaches have been applied to Algonquian languages as several linguistic patterns challenge current views of licensing and agreement (e.g. Brittain, 2003; Piggott and Newell, 2006; Newell and Piggott, 2014; Oxford, 2013, 2014, among others).

The Algonquian languages by far form the largest part of the greater Algic language family; Yurok and Wiyot, the other Algic languages, are spoken in northwestern California. Algonquian languages are spoken across North America, from the Rocky Mountains to the eastern seaboard in Canada primarily but also in the United States of America. There are three major subgroupings in Algonquian: Plains, Central, and Eastern. Of these, only Eastern Algonquian is considered a genetic subgroup; both Plains and Central Algonquian are areal (Goddard, 1980; 1994). Nishnaabemwin, a Central Algonquian language, is part of the Ojibwe subgroup also known as *Anishinaabemowin*. Ojibwe is one of the largest dialect groups with approximately 50,000 speakers (Hermes and King, 2013). These languages are concentrated around the Great Lakes: they are spoken from Alberta to Quebec in Canada, and from Montana to Michigan in the United States of America (Valentine, 2001).

Nishnaabemwin, also known as *Odawa, Ottawa, Chippewa*, and *Ojibway*, is spoken mainly in southern Ontario and western Quebec. The data in this paper comes primarily from Valentine (2001), a Nishnaabemwin grammar, which have all been cross-checked with members of the Long Point First Nations community in Winneway, Quebec: Jimmy Hunter and Rose Mathias, both speakers of a very closely related dialect. The sentences in chapter 5 were collected in consultation with Jimmy Hunter.

This thesis is organized as follows. Chapter 2 overviews the core Nishnaabemwin agreement patterns in the so-called *independent* paradigm, verbs that are generally used in matrix clauses. Chapter 3 discusses existing theoretical analyses, highlighting their insights and remaining issues. I outline my analysis in chapter 4, proposing a two-probe agreement system that derives Nishnaabemwin inverse-marking as object agreement in some cases and failed agreement in others. In chapter 5, I overview the core Nishnaabemwin agreement patterns in the so-called *conjunct* paradigm, verbs that typically appear in subordinate clauses. I show that my analysis can be extended to account for conjunct verbs. I discuss remaining issues in chapter 6, as well as possible solutions and suggestions for future research. Chapter 7 concludes.

Chapter 2

Empirical Landscape: The Distribution of Theme Signs in Nishnaabemwin

This chapter reviews the distribution of DIRECT and INVERSE theme signs in Nishnaabemwin as well as their environmental triggers. There are five different forms of the theme signs; two appear when both arguments are speech act participants (either the speaker or the addressee), and another two appear when one of the arguments is 3rd person and the other is a speech act participant. Yet another appears when the object is inanimate. I illustrate each of these different environments below.

The theme signs *-i* and *-in* are used when both core arguments are speech act participants. In the sentences in (1), the prefix *gi-* marks the involvement of a 2nd person argument. As shown in (1a), the so-called DIRECT theme sign *-i* appears suffixed to the verb when the 2nd person argument is the subject. As shown in (1b), the so-called INVERSE theme sign *-in* appears suffixed to the verb when the 2nd person argument is the object.[1]

(1) a. gwaabmi
gi-waabam-**i**
2-see.VTA-DIR

'You see me.'

b. gwaabmin
gi-waabam-**in**
2-see.VTA-INV

'I see you.' Valentine (2001)

In contrast, the theme signs *-aa* and *-igw* are used when at least one of the core arguments is not a speech act participant.

[1]Nishnaabemwin verbs have four major verb paradigms reflecting *transitivity* and *animacy*. Verbs from the VTA paradigm are transitive verbs that take an animate object, and verbs from the VTI paradigm are transitive verbs that take an *inanimate* object. In contrast, verbs from the VAI paradigm are intransitive verbs that take an animate subject, while verbs from the VII paradigm are intransitive verbs that take an inanimate subject. I only discuss verbs from the VTA and VTI paradigms in this thesis, leaving the remaining paradigms to future research.

In (2a), the prefix *gi-* marks the involvement of a 2nd person argument whereas in (2b), the prefix *ni-* marks the involvement of a 1st person argument. When these arguments are the subjects of a sentence, the DIRECT theme sign *-aa* appears.

(2) a. gwaabmaa
gi-waabam-**aa**
2-see.VTA-DIR

'You see him/her.'

b. nwaabmaa
ni-waabam-**aa**
1-see.VTA-DIR

'I see him/her.' Valentine (2001)

In (3), the person prefixes and verb stems are identical to the forms in (2), despite the change in grammatical roles. The 2nd person argument in (3a) and the 1st person argument in (3b) are the objects of their respective clauses, and the INVERSE theme sign *-igw* appears. This theme sign is the only difference between the pairs in (2) and (3).

(3) a. gwaabamig
gi-waabam-**igw**
2-see.VTA-INV

'She/he sees you.'

b. nwaabmig
ni-waabam-**igw**
1-see.VTA-INV

'She/he sees me.' Valentine (2001)

As in (2-3), the theme signs *-aa* and *-igw* are used when both core arguments are not speech act participants. Consider the sentences in (4). One of the more interesting characteristics of Algonquian languages is that they mark a distinction between 3rd person 'proximate' and 3rd person 'obviative' arguments. Proximate arguments are more central to the discourse, whereas obviative arguments are backgrounded. In both sentences, the prefix *o-* marks the involvement of a 3rd person proximate argument and the suffix *-n* marks the involvement of a 3rd person obviative argument. When the 3rd person proximate argument is the subject, the DIRECT theme sign *-aa* appears suffixed to the verb, as shown in (4a). When the 3rd person proximate argument is the object, the INVERSE theme sign *-igw* appears suffixed to the verb, as shown in (4b).

(4) a. waabmaan
o-waabam-**aa**-n
3-see.VTA-DIR-OBV

'She/he$_{prox}$ sees him/her$_{obv}$.'

b. waabmigon
o-waabam-**igo**-n
3-see.VTA-INV-OBV

'She/he$_{obv}$ sees him/her$_{prox}$.' Valentine (2001)

Having discussed the distribution of theme signs for animate arguments, I now turn to the fifth theme sign which is used in sentences where there is an inanimate object. As shown in (5), the theme sign *-am* is used when there is an inanimate object. Furthermore, the verb stem obligatorily changes to reflect the animacy of the internal argument; the verb appears as *waabam* in (1-4), but as *waabam**d*** in (5). *Animacy* can be considered a type of grammatical gender; nouns are obligatorily specified as animate or inanimate, triggering unique nominal and verbal morphology reflecting the animacy of the argument.

(5) gwaabmaan
gi-waabamd-**am**-n
2-see.VTI-INAN-NON.PL

'You see it$_{inan}$.' (Valentine, 2001)

In some Algonquian languages, transitive sentences with inanimate subjects are also permitted. Valentine (2001) lists several Nishnaabemwin forms, such as *nwaabmigon* 'It$_{inan}$ sees me'. While inanimate subjects consistently trigger the INVERSE theme sign *-ekw* in Proto-Algonquian (Oxford, 2014), Lochbihler (2012) points out that the status of the 'INVERSE' *-igw* theme sign in constructions like *nwaabmigon* is less clear for two major reasons. First, such forms are impossible for many speakers of related Nishnaabemwin dialects. Second, such forms may require a process which, for the purposes of the syntax, treats the inanimate subject as grammatically animate for those dialects where inanimate subjects *are* possible. I do not discuss these constructions in further detail due to these complications.

In summary, there are five different theme signs, each of which are conditioned by the animacy of each argument and whether each argument is a speech act participant, as shown in the table below in (6).

(6) *Theme sign distribution (independent)*

S \ O	2	1	3 PROX	3 OBV	INAN
2	REFL	*-i*	*-aa*	*-aa*	*-am*
1	*-in*	REFL	*-aa*	*-aa*	*-am*
3 PROX	*-igw*	*-igw*	REFL	*-aa*	*-am*
3 OBV	*-igw*	*-igw*	*-igw*	REFL	*-am*

The DIRECT theme sign *-i* and the INVERSE theme sign *-in* are used if both arguments are animate and speech act

participants. The DIRECT theme sign *-aa* and the INVERSE theme sign *-igw* are used if both arguments are animate, but one argument is not a speech act participant. Finally, the theme sign *-am* is used when the object is inanimate.

Chapter 3

Existing Analyses

This section overviews previous analyses of person hierarchy effects. Aissen (1997) argues that the person hierarchy constitutes part of the grammar, whereas Lochbihler (2012), Oxford (2014), and Preminger (2014) argue that person hierarchies are epiphenomenal. I review each analysis, discussing remaining issues and insights, particularly in reference to Agree as a fallible operation and treating the Nishnaabemwin theme signs as object agreement.

3.1 Person Hierarchies are Part of the Grammar (Aissen, 1997)

Aissen (1997) proposes that a *relational* hierarchy exists alongside the person hierarchy, presented together in (7). The relative ranking of arguments on both of these hierarchies conditions the distribution of the theme signs. Placing the person hierarchy *and* the relational hierarchy in the grammar requires that agreement mechanisms encode the relationship between the subject and object. The theme signs reflect not only each argument's animacy and status as a speech act participant, but also their grammatical roles in relation to each other.

(7) **Person Hierarchy**: $2 > 1 > 3\ \textsc{prox} > 3\ \textsc{obv}$

Relational Hierarchy: $\textsc{subject} > \textsc{primary object}$

It is possible that an argument may be higher ranked on the person hierarchy, but lower ranked on the relational hierarchy. Similarly, an argument may be lower ranked on the person hierarchy, but higher ranked on the relational hierarchy. In order to derive the attested theme sign distribution, morphosyntactic agreement mechanisms must have access to both of these hierarchies.

Agreement mechanisms in the morphology consult the rank of each argument on both the person and relational hierarchies. If the same argument ranks higher on both hierarchies, a DIRECT theme sign appears. If an argument ranks higher on one hierarchy but lower on the other hierarchy, an INVERSE theme sign appears.

Consider the sentences in (1), repeated as (8) below. In (8a), the 2nd person argument outranks the 1st person argument on the person hierarchy, and as the subject the 2nd person argument outranks the 1st person object on the relational hierarchy as well. The ranking is thus 'aligned', i.e. the 2nd person argument ranks highest on both hierarchies, generating the DIRECT theme sign *-i*. In (8b), however, the 2nd person argument outranks the 1st person argument on the person hierarchy, but it is the 1st person subject that outranks the 2nd person object on the relational hierarchy. The ranking is thus 'misaligned', generating the INVERSE theme sign *-in*.

(8) a. gi-waabam-**i**
2-see.VTA-DIR
'You see me.'

b. gi-waabam-**in**
2-see.VTA-INV
'I see you.' Valentine (2001)

In (9a), repeated from (2a), the 2nd person argument outranks the 3rd person argument on the person hierarchy, and as the subject the 2nd person argument outranks the 3rd person object on the relational hierarchy as well. The ranking of the 2nd person argument is thus aligned, generating the DIRECT theme sign *-aa*. However, in (9b) repeated from (3a), the 2nd person argument outranks the 3rd person argument on the person hierarchy, but it is the 3rd person subject that outranks the 2nd person object on the relational hierarchy. The ranking is thus misaligned, generating the INVERSE theme sign *-igw*.

(9) a. gi-waabam-**aa**
2-see.VTA-DIR
'You see him/her.'

b. gi-waabam-**igw**
2-see.VTA-INV
'She/he sees you.' Valentine (2001)

In the sentence in (10), repeated from (5), the 2nd person argument outrank the inanimate argument on the person hierarchy. As the 2nd person argument is the subject, it also outranks the inanimate object on the relational hierarchy. The ranking is aligned, and so a 'DIRECT' theme sign *-am* appears.

(10) gi-waabamd-**am**-n
2-see.VTI-INAN-NON.PL
You see it$_{inan}$. Valentine:2001

It is important to emphasize that the person hierarchy and the relational hierarchy alone cannot account for all of the data. The theme signs overviewed in chapter 2 depend not only on the ranking of arguments, but also on their person and animacy features, as well as their individual status as a speech act participant. For example, consider the sentences in (11) below.

(11) a. gi-waabam-**i**
2-see.VTA-DIR
'You see me.'

b. gi-waabam-**aa**
2-see.VTA-DIR
'You see him/her.'

c. gi-waabamd-**am**-n
2-see.VTI-INAN-NON.PL
'You see it$_{inan}$.' (Valentine, 2001)

The person and relational hierarchies do not account for the distribution of *-i* vs. *-aa* vs. *-am* in these contexts. In all three sentences, the 2nd person argument ranks higher on the two hierarchies but the motivation for three distinct theme signs remains unclear. Thus, agreement mechanisms do not just reflect relative ranking of arguments; they also reflect contrasts in person and animacy features that the person and relational hierarchies do not capture.

In summary, Aissen (1997) proposes that the person hierarchy and the relational hierarchy are directly encoded in the grammar. Morphosyntactic agreement mechanisms access both of these hierarchies to generate the five theme signs. If the same argument ranks higher on both hierarchies, a DIRECT theme sign is used: (i) *-i* appears when both arguments are animate and speech act participants, (ii) *-aa* appears when both arguments are animate, but one argument is not a speech act participant, and (iii) *-am* appears if the object is inanimate. If one argument ranks higher on one hierarchy but not on the other, an INVERSE theme sign is used: (i) *-in* appears when both arguments are animate and speech act participants, and (ii) *-igw* appears when both arguments are animate, but one argument is not a speech act participant. However, the person and relational hierarchies alone cannot capture the finer details concerning the variation in theme signs, such as the three-way contrast between the DIRECT theme signs *-i, -aa, -am*. The hierarchies have to refer to these contrasts—under this model, it is unclear how the contrasts between *-i, -aa, -am* are motivated.

3.2 Person Hierarchies are Epiphenomenal

3.2.1 Lochbihler (2012)

Unlike Aissen, Lochbihler (2012) adopts a probe–goal approach to agreement. In this framework, syntactic structures are formed by the Merge and Move (or Internal Merge) operations that combine two syntactic elements (Lexical Items) to form a complex element. These lexical items bear *interpretable* or *uninterpretable* features. Certain lexical items, such as nouns, bear interpretable features as their person, number, and gender features are already valued. Other lexical items, such as verbs and adjectives, bear uninterpretable features as their person, number, and gender features are unvalued. In order to form a grammatical structure, uninterpretable features must be deleted at the point of the phonological and semantic interfaces—Agree is the operation that derives this deletion. Agree matches an

uninterpretable feature [*u*F] with an interpretable feature [*i*F]. A probe P bearing [*u*F] searches its domain D(P) for the closest goal G bearing [*i*F] as described below.

(12) a. Matching is feature identity.

b. D(P) is the sister of P.

c. Locality reduces to "closest c-command."

(Chomsky 2000:122)

The analysis proposed in Lochbihler (2012) builds on the Cyclic Agree model proposed in Béjar and Rezac (2009). Under this analysis, a single low licensing probe agrees with multiple arguments. This process is possible as the probe first searches the internal argument for a given set of ϕ features, and then searches again upward for features in the external argument. The crux of Lochbihler's analysis is the formal distinction between *checked* features and *entailed* features.

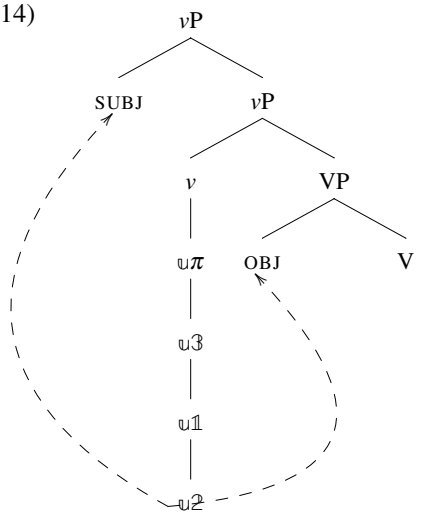
Lochbihler adopts a feature geometric approach to ϕ feature representation: ϕ features are organized via subset relations, which are visible to Agree processes. Following Béjar and Rezac (2009), she proposes a model in which a single 'articulated' licensing probe on v^0 searches for a set of ϕ features, illustrated below with their shorthand counterparts.

(13) *Lochbihler's features*

[*u*π]	$\rightarrow$	[*u*π]
[*u*proximate]	$\rightarrow$	[*u*3]
[*u*participant]	$\rightarrow$	[*u*1]
[*u*addressee]	$\rightarrow$	[*u*2]

The probe on v^0, bearing both unchecked and unentailed features, first searches the internal argument, checking any feature that it can, and also *activating* all entailed features. The probe on v^0 then searches the external argument in Spec,*v*P, also checking any features that it can. This is illustrated in the structure below; the outlined features on the probe demonstrate that these features are *unchecked* and *unentailed*, and the dotted lines represent a probe search for a goal.

(14)



Though Lochbihler argues that pronominal ϕ features are organized via subset relations, only the most specified feature is represented in the syntax. That is, a probe searching a 2nd person argument will only result in the checking of an [addressee] feature as the 'entailed' features—[participant], [proximate], and [person]—are not visible nor accessible by the probe. However, these 'entailed' features will be *activated* on the probe. Thus, different combinations of arguments in a sentence yield different valuations of checked and entailed features. Lochbihler's analysis rests on this variability—each theme sign is derived from a unique combination of un/checked and un/entailed features, as shown below.

(15) *Vocabulary Insertion Rules (Lochbihler, 2012)*

v^0	⇔	*-in*	/	[~~**u1**~~]
v^0	⇔	*-i*	/	[~~u1~~**, u3**]
v^0	⇔	*-igw*	/	[~~**uF**~~]
v^0	⇔	*-aa*	/	elsewhere

Lochbihler's analysis is situated in the Distributed Morphology framework. Once the derivation is sent to PF, a phonological exponent is assigned to the morphosyntactic features bundles based on an ordered set of vocabulary insertion rules. These rules determine which theme sign will spell-out based on the make-up of the feature bundle present on the relevant syntactic element, a process represented by the double arrow above.

For Lochbihler, all theme signs spell-out on v^0—the filled-in features in (15) above indicate that they have been activated (i.e. entailed). The vocabulary insertion rule for *-in* is ordered first: v^0 will spell-out as *-in* just in case its feature bundle comprises a checked, entailed [*u*1] ([*u*participant]) feature. If the conditions for *-in* are not met, the second ordered rule may apply given the correct environment: v^0 will spell-out as *-i* just in case its feature bundle comprises a checked, unentailed [*u*1] ([*u*participant]) feature *and* an unchecked, entailed [*u*3] ([*u*proximate]) feature.

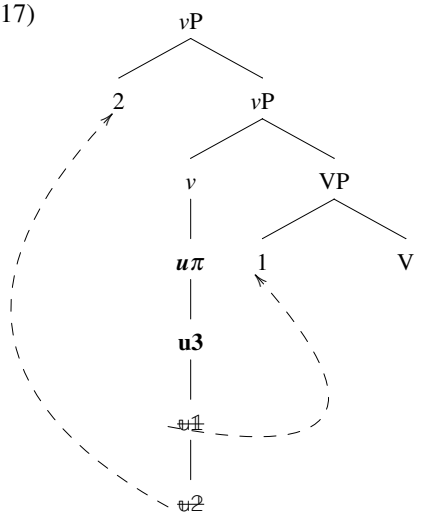
The third ordered rule will spell-out *-igw* on v^0 given any checked, entailed feature. If none of these rules are triggered, v^0 spells-out as *-aa* as the elsewhere form.

To demonstrate an example derivation, consider the sentence below (repeated from 1a).

(16) gi-waabam-**i**
2-see.VTA-DIR
'You see me.'

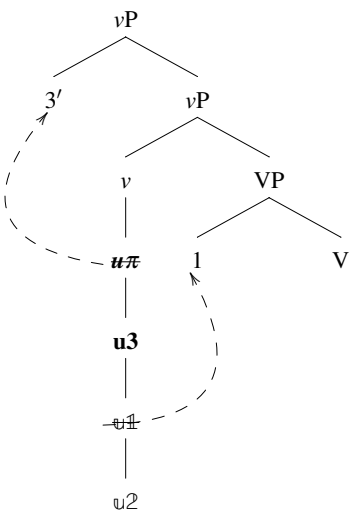
First, v^0 probes the object for [$u\pi$], [$u3$], [$u1$], and [$u2$], checking the *unentailed* [$u1$] feature against the 1st person object and activating the entailed features [$u\pi$] and [$u3$]. Second, v^0 probes the subject for [$u\pi$], [$u3$], and [$u2$], checking the *unentailed* [$u2$] feature against the 2nd person subject. Third, v^0 spells-out as *-i* according to the Vocabulary Insertion rules above, as v^0 bears a checked and unentailed [$u1$] *and* an unchecked and entailed [$u3$] feature. See the tree below for an illustration for this process.

(17)



However, Lochbihler's analysis makes the wrong prediction for sentences with a 3rd person obviative subject and 1st person object. The derivation is as follows: First, v^0 probes the object for [$u\pi$], [$u3$], [$u1$], and [$u2$], checking the *unentailed* [$u1$] feature against the 1st person object and activating the entailed features [$u\pi$] and [$u3$]. Second, v^0 probes the subject for [$u\pi$], [$u3$], and [$u2$], checking the *entailed* [$u\pi$] feature against the 3rd person OBV subject. Third, v^0 spells-out as *-i* according to the Vocabulary Insertion rules above, as v^0 bears a checked and unentailed [$u\pi$] *and* an unchecked and entailed [$u3$] feature, as shown in the tree below.

(18)



As can be seen below in (19), the attested theme sign in this context is *not -i* but *-igw*.

(19) o-danis-an ni-waabam-**igw**
3-daughter-OBV 1-see.VTA-INV
'His/her daughter$_{obv}$ sees me.'

The formalized checked/entailed distinction presents a problem. Namely, it is unclear how the checked/entailed distinction is different from a formal, grammaticalized person hierarchy. Entailed features are necessarily 'lower ranked' than checked features as entailed features are only activated via feature-checking. Thus, the checked/entailed distinction can be argued to instantiate a formalized person hierarchy.

To summarize, Lochbihler (2012) derives Nishnaabemwin theme signs by encoding the relationship between the subject and object on a single licensing probe, crucially via a formal, grammaticalized distinction between checked and entailed features. Thus, there is a four-way distinction in features that morphosyntactic mechanisms are sensitive to: (i) checked and entailed, (ii) checked and unentailed, (iii) unchecked and entailed, and (iv) unchecked and unentailed. This distinction is controversial for two reasons. First, it is largely centred around the Nishnaabemwin agreement paradigm and it is unclear how a checked/entailed distinction could be reflected across crosslinguistic agreement systems. Second, a formalized distinction between checked and entailed features is conceptually similar to an abstract person hierarchy as checked features are necessarily higher ranked than entailed features. Proposing that agreement mechanisms are sensitive to the checked/entailed distinction implies that agreement mechanisms are sensitive to a person hierarchy, thus undermining a model that was meant to eliminate the person hierarchy altogether.

3.2.2 Oxford (2014)

In contrast to the single complex probe analysis in Lochbihler (2012), Oxford (2014) derives the theme signs with a two-probe system. A lower probe on Voice^0 spells-out *object agreement* markers (see Rhodes (1994); Brittain (1999); McGinnis (1999); Macaulay (2009); Lochbihler (2012), among others). A higher probe on Infl^0 spells-out just in case it has agreed with the same argument as the lower probe.

Motivation for a two-probe analysis comes from Plains Cree. Consider the sentences in (20) and (21) below. The Plains Cree theme signs do not share the same distribution: *-it, -i, -e·* (Nishnaabemwin *-in, -i, -aa*, respectively) appear *before* the diminutive suffix *-isi*, as in (20).

(20) a. ki-pakamahw-**it**-isi-in
2-hit-2OBJ-DIM-2S
'I hit you.'

b. pakamahw-**i**-isi-yan
hit-1OBJ-DIM-1S
'You hit me.'

c. pakamahw-**e**·-isi-w
hit-3OBJ-DIM-3S
'She/he hits the other.' (Wolfart, 1973)

In contrast, Plains Cree *-ikw* (Nishnaabemwin *-igw*) appears *after* the diminutive suffix *-isi*, as in (21).

(21) pakamahw-isi-**ikw**-t
hit-DIM-INV-3S
'The other hits him/her.' (Wolfart, 1973)

The alternation between morphological slots is puzzling under a single-probe analysis—namely, we would not expect this split distribution if a single probe spells-out all five theme signs (as in Lochbihler 2012). Based on these patterns, Oxford concludes that the Proto-Algonquian theme signs correspond to two different probes. One probe spells-out the theme signs that appear before the diminutive, i.e. Proto-Algonquian *-eθ, -i, -a·*, and another probe spells-out the theme sign that appears after the diminutive, i.e. Proto-Algonquian *-ekw*.

The grouping of *-eθ, -i, -a·* together to the exclusion of *-ekw* is supported under an object agreement analysis. Abstracting away from the 'INVERSE' *-ekw*, the distribution of the remaining theme signs consistently points to object agreement, as shown in the table below.

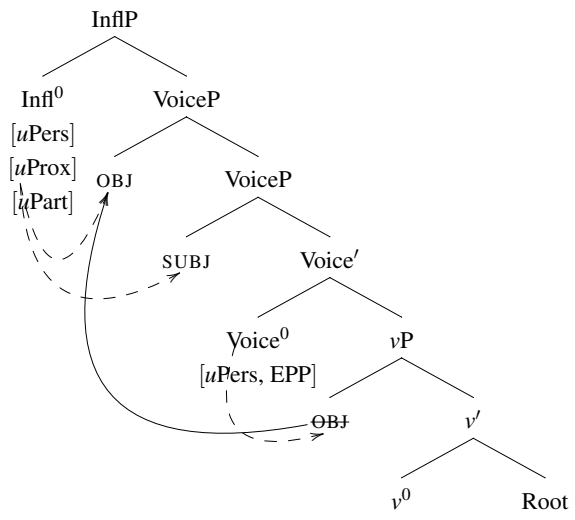
(22) *Proto-Algonquian theme sign distribution (Independent)*

S \ O	2	1	3 PROX	3 OBV
2	REFL	*-i*	*-a·*	*-a·*
1	*-eθ*	REFL	*-a·*	*-a·*
3 PROX	–	–	REFL	*-a·*
3 OBV	–	–	–	REFL

Oxford argues that a lower probe on Voice^0 spells-out *-eθ, -i, -a·* as object agreement (Nishnaabemwin *-in, -i, -aa*, respectively), whereas a higher probe on Infl^0 spells-out as the remaining theme sign *-ekw* (Nishnaabemwin *-igw*). This analysis accounts not only for the distribution of the Plains Cree theme signs around the diminutive suffix, but also for the consistent pattern of object agreement if we abstract away from *-ekw*.

Consider the structure in (23) for the general outline of this process. As represented by the dotted line, a lower probe on Voice^0 searches the object for a single π feature. After Agree, the object moves to Spec,VoiceP in a position equidistant to the subject, represented as a solid line. A higher probe on Infl^0 then searches its domain for a complex set of π features. As both the subject and object are situated in the same structural position, Infl^0 may agree with either argument. At this point in the derivation, Infl^0 will agree with the argument whose features best match the probe.

(23)



As Voice^0 only searches for a [*u*Pers] feature—and every pronominal argument has a [Pers] feature—Agree will always be successful. The theme signs spell-out as object agreement according to the rules below: (i) *-eθ* marks a 2nd person object, (ii) *-i* marks a 1st person object, and (iii) *-a·* marks a 3rd person (proximate or obviative) object. Following Agree, the object in Spec,*v*P moves to a structurally equidistant position to the subject in Spec,VoiceP.

(24) *Spell-out rules for Voice*^{0}

Voice^0$_{[\alpha\text{Pers}]}$	$\Leftrightarrow$	$\varnothing$	/	____ Infl^0$_{[\alpha\text{Pers}]}$
Voice^0$_{[\text{Pers, Prox, Part, Addr}]}$	$\Leftrightarrow$	*-eθ*		
Voice^0$_{[\text{Pers, Prox, Part}]}$	$\Leftrightarrow$	*-i*		
Voice^0$_{[\text{Pers}]}$	$\Leftrightarrow$	*-a·*		

In contrast, a higher probe on Infl^0 searches [*u*Pers], [*u*Prox], and [*u*Part]. Proto-Algonquian *-ekw* spells-out only when the higher probe on Infl^0 agrees with the same argument that the lower probe on Voice^0 has agreed with, a process made possible as Infl^0 probes for a larger set of ϕ features in both the subject and and object. Otherwise, Infl^0 is phonologically null, as shown in (25).[2]

(25) *Spell-out rules for Infl*^{0}

Infl^0	$\Leftrightarrow$	*-ekw*	/	Voice^0$_{[\alpha\text{Pers}]}$ ____
	$\Leftrightarrow$	$\varnothing$	/	elsewhere

To summarize, Oxford derives the theme signs by proposing a two-probe system. The lower probe spells-out all but one of the theme signs as object agreement, triggering movement of the object to a position equidistant to the subject. There, the higher probe can potentially Agree with the object—if both probes Agree with the same argument, the remaining theme sign spells-out. However, this requires a complex process of communication between two functional heads: Infl^0 must check its features and cross-check the valuation of those features with Voice^0 to see if both sets match. Furthermore, equidistance between the subject and object creates an issue for feature checking/valuation. Oxford's analysis rests on the equidistance between the subject and the object; the probe on Infl^0 must be able to access and evaluate both sets of ϕ features so as to Agree with the best matching argument. It is thus crucial that Infl^0 knows to Agree with only one argument rather than 'split' its feature checking/valuation between the two arguments. Both sets of ϕ features are equally accessible and visible to Infl^0, and so it remains unclear why the probe cannot check [*u*Pers] against the subject and [*u*Part] against the object, for example.

3.3 Agree can Fail (Preminger, 2014)

Preminger (2014) proposes an analysis of person hierarchy effects in the *Agent Focus* (AF) constructions in Kichean, a Mayan language. This section overviews the basic premises of his analysis, outlining the motivation for a fallible Agree operation. While the previous theories have derived person hierarchy effects via complex person agreement systems, Preminger explores the morphosyntactic consequences of failed agreement.

[2] As the Proto-Algonquian theme signs *-eθ, -i, -a·* correspond to the Nishnaabemwin theme signs *-in, -i, -aa*, Nishnaabemwin object agreement is as follows: (i) *-in* marks a 2nd person object, (ii) *-i* marks a 1st person object, and (iii) *-aa* marks a 3rd person (PROX or OBV) object.

Consider the sentences in (26). In both (26a) and (26b), the morpheme *-in* marks the involvement of the 1st person argument. However, the 1st person is the subject in (26a) and the object in (26b). The sentence is ungrammatical if a 3rd person marker appears.[3]

(26) a. ja yïn x-**in/*∅**-ax-an ri achin
FOC me COM-**1**SG**/*3**SG.ABS-hear-AF the man
'It was me that heard the man.'

b. ja ri achin x-**in/*∅**-ax-an yïn
FOC the man COM-**1**SG**/*3**SG.ABS-hear-AF me
'It was the man that heard me.'

A 3rd person plural argument will control the agreement slot if there are no speech act participant arguments, as in (27) below. In (27a), the agreement morpheme *-e* marks the involvement of the 3rd person plural argument, here the subject. In (27b), the same agreement morpheme *-e* appears when the 3rd person plural argument is the object.

(27) a. ja rje' x-**e/*∅**-tz'et-ö rja'
FOC them COM-**3**PL**/*3**SG.ABS-see-AF him
'It was them who saw him.'

b. ja rja' x-**e/*∅**-tz'et-ö rje'
FOC them COM-**3**PL**/*3**SG.ABS-see-AF him
'It was him who saw them.'

The agreement patterns in (26-27) suggest that Kichean, like Nishnaabemwin, has a person hierarchy. In Kichean, speech act participant arguments rank higher than non-speech act participant arguments, and plural arguments outrank singular arguments. This is illustrated in (28) below.

(28) *Kichean person hierarchy*

1,2 > 3PL > 3SG

However, unlike Nishnaabemwin, Kichean AF constructions do not allow two speech act participant arguments to co-occur. Consider the sentences in (29). Both are ungrammatical regardless of the agreement morphology on the verb.

(29) a. *ja rat x-**in/at/∅**-ax-an yïn
FOC you(SG) COM-**1**SG**/2**SG**/3**SG.ABS-hear-AF me
Intended: 'It was you(SG) that heard me.'

b. *ja yïn x-**in/at/∅**-ax-an rat
FOC me COM-**1**SG**/2**SG**/3**SG.ABS-hear-AF you(SG)
Intended: 'It was me that heard you(SG).'

Preminger (2014) argues that this ungrammaticality is expected under Béjar and Rezac (2003)'s analysis of PCC

[3]The agreement patterns are similar with a 2nd person argument instead of a 1st person argument.

effects, specifically the *Person Licensing Condition* (PLC) defined below in (30).

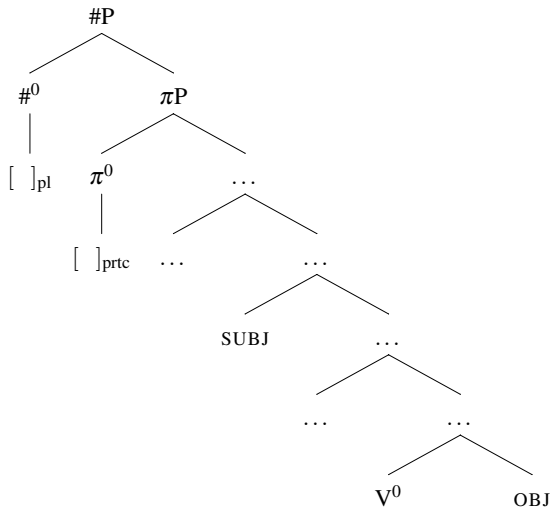
(30) *Person Licensing Condition* (Béjar and Rezac, 2003)

An interpretable 1st/2nd person feature must be licensed by entering into an Agree relation with a functional category.

According to Preminger, the sentences above in (29) are ungrammatical since one of the speech act participant arguments has not entered into an Agree relation with a functional category. As such, there must only be one licensing probe in Kichean AF constructions.

Preminger assumes that each type of feature is associated with its own functional head. Thus, in Kichean there is a number ($\#^0$) head and a person (π^0) head as shown in (31). Only π^0 is a licensing probe; $\#^0$ cannot license arguments. Each functional head can potentially enter into a probe–goal relationship with the subject or object. In order to account for the complementary distribution of the Kichean agreement morphemes *-in, -at,* -∅, and *-e*—which correspond to two functional heads—he further assumes that $\#^0$ and π^0 compete for the same morphological slot.

(31)



There are three major components to Preminger (2014)'s analysis. First, the licensing probe on π^0 scans its c-commanding domain for a [participant] feature. Second, a higher probe on $\#^0$ scans its c-commanding domain for a [plural] feature. If π is successful, the exponence of π^0 overrides $\#^0$. Crucially, the Agree operation must be able to fail without crashing the derivation. This will be further discussed shortly.

Preminger (2014) derives the agreement morphemes as follows. Consider the sentences in (26), repeated as (32) below. The morpheme *-in* spells-out in both (32a) and (32b) as π^0 finds a [participant] feature in the 1st person argument, regardless of its structural position.

(32) a. ja yïn x-**in/*∅**-ax-an ri achin
FOC me COM-**1**SG**/*3**SG.ABS-hear-AF the man
'It was me that heard the man.'

b. ja ri achin x-**in/*∅**-ax-an yïn
FOC the man COM-**1**SG**/*3**SG.ABS-hear-AF me
'It was the man that heard me.'

Consider the sentences in (27), repeated as (33) below. The morpheme *-e* spells-out in both (33a) and (33b) as $\#^0$ finds a [plural] feature in the 3rd person plural arguments, regardless of their structural position. Crucially, π^0 has failed to find a [participant] feature in these sentences—yet the resulting construction is completely grammatical.

(33) a. ja rje' x-**e/*∅**-tz'et-ö rja'
FOC them COM-**3**PL**/*3**SG.ABS-see-AF him
'It was them who saw him.'

b. ja rja' x-**e/*∅**-tz'et-ö rje'
FOC them COM-**3**PL**/*3**SG.ABS-see-AF him
'It was him who saw them.'

Finally, consider the sentences in (29), repeated as (34) below. As π^0 is the only licensing probe, the PLC is violated in both (34a) and (34b). Although π^0 finds a [participant] feature in one of the speech act participant arguments, the derivation is ungrammatical as the other speech act participant argument remains unlicensed.

(34) a. *ja rat x-**in/at/∅**-ax-an yïn
FOC you(SG) COM-**1**SG**/2**SG**/3**SG.ABS-hear-AF me
Intended: 'It was you(SG) that heard me.'

b. *ja yïn x-**in/at/∅**-ax-an rat
FOC me COM-**1**SG**/2**SG**/3**SG.ABS-hear-AF you(SG)
Intended: 'It was me that heard you(SG).'

In summary, the analysis of Kichean AF constructions proposed in Preminger (2014) derives person hierarchy effects from standard agreement mechanisms with the crucial property that the Agree operation is fallible.[4] If Agree is *not* a fallible operation, we would not expect the sentences in (27) to be licit: a licensing probe on π^0 relativized to search for a [participant] feature must be able to fail in contexts with no [participant]-bearing arguments without crashing the derivation. PLC violations in AF constructions with two speech act participant arguments result in ungrammaticality. This leads Preminger to the conclusion that Kichean AF constructions have only one licensing probe, π^0, in addition to a non-licensing probe, $\#^0$. The morpheme *-in* spells-out when π^0 successfully finds a [participant] feature. The morpheme *-e* spells-out just in case $\#^0$ successfully finds a [plural] feature *and* π^0 fails to find a [participant] feature.

Although Preminger's analysis elegantly accounts for the person hierarchy effects in Kichean, it cannot straightforwardly be extended to Nishnaabemwin inverse-marking. The explanation for the ungrammaticality of the sentences in

[4]The full discussion of Agree as a fallible operation is beyond the scope of this thesis (see Preminger 2014).

(29)—that the lack of licensing for both speech act participant arguments violates the PLC—does not hold for similar argument combinations in Nishnaabemwin. That is, Nishnaabemwin sentences with two speech act participants are perfectly grammatical. This gap in Preminger's analysis must therefore be filled. I devote the next section to discussing this issue in more detail.

Chapter 4

Deriving the Theme Signs

This section analyzes inverse-marking as a complex agreement system in which two probes work together to license arguments. This proposal builds on Preminger (2014) in analyzing Kichean (Mayan) person hierarchy effects under the crucial principle that the Agree operation is fallible, as well as Oxford (2014) in analyzing Nishnaabemwin theme signs as object agreement markers. Under this view, abstract hierarchies are illusory, arising from similar syntactic agreement mechanisms that operate across all languages.

4.1 Pronominal Feature Representations

The representation of pronominals plays a crucial role in explaining the distribution of Nishnaabemwin theme signs. A feature geometric dependency between ϕ-features, e.g. [ADDRESSEE] $\rightarrow$ [PARTICIPANT], captures the 'hierarchical' relationship between pronominals in Nishnaabemwin. I adopt the ϕ-feature representations for pronominal arguments in (35) below (see Harley and Ritter 2002 for a full discussion of crosslinguistic feature geometries).

(35) *ϕ feature specifications (adapted from Lochbihler 2012)*

2nd	1st	3rd PROX	3rd OBV	INAN
[ANIMATE]	[ANIMATE]	[ANIMATE]	[ANIMATE]	
[PERSON]	[PERSON]	[PERSON]	[PERSON]	
[PROXIMATE]	[PROXIMATE]	[PROXIMATE]		
[PARTICIPANT]	[PARTICIPANT]			
[ADDRESSEE]				

These ϕ features are organized via subset relations. That is, the [PERSON] feature found in the 3rd person proximate argument is not uniquely '3rd person proximate'; rather, each argument is distinct from another based on how *specified* their ϕ features are. For example, the 2nd person argument in (35) is the most specified, having the [ANIMATE],

[PERSON], [PARTICIPANT], and [ADDRESSEE] features. The 1st person argument has the [ANIMATE], [PERSON], and [PARTICIPANT] features as well, but crucially lacks the [ADDRESSEE] feature.

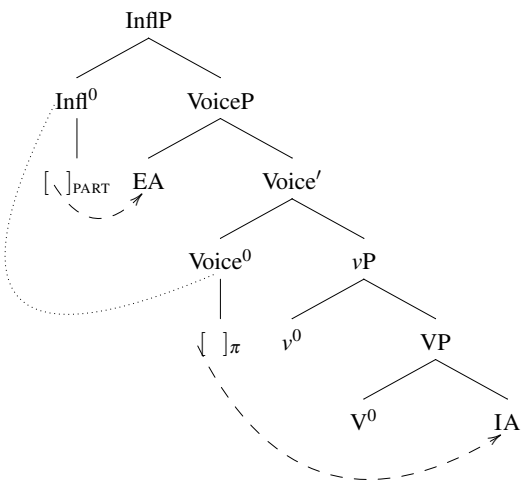
Feature geometric representations allow for 2nd person and 1st person arguments to form a natural class, as these arguments bear the [PARTICIPANT] feature to the exclusion of the 3rd person proximate and obviative arguments, as well as inanimates. Under the view that probes can be *relativized* to search for particular feature(s) (Rizzi, 1990; Preminger, 2014), this allows for the targeting of a specific feature that is not inherent to a particular pronominal. For example, while the Person Case Constraint (PCC) has been used to describe the prohibition of 1st and 2nd person direct objects appearing alongside indirect objects, Béjar and Rezac (2003) argue that PCC effects can be derived via a licensing requirement on a [PARTICIPANT] feature, thus motivating the representation of 1st and 2nd person arguments as a natural class.

4.2 The Nishnaabemwin Inverse System in the Independent

In this section, I argue that the Nishnaabemwin inverse-marking instantiates a complex form of object agreement contingent on the success or failure of the Agree operation. Following Oxford (2014), I analyze the theme signs *-in, -i, aa* as, respectively, 2nd person, 1st person, and 3rd person object agreement. I build on Preminger (2014) in order to analyze the theme sign *-igw* as default morphology due to a failure to Agree.

The structure in (36) represents a standard analysis of the structure for Nishnaabemwin sentences. The dashed lines represent a probe search: Voice^0 probes the object whereas Infl^0 probes the subject. The dotted line represents head movement of Voice^0 to Infl^0 and also that the probes have fused.

(36)



My proposal has a three major components. First, the lower functional head Voice^0 probes the internal argument for a [PERSON] ([π])feature. Second, Voice^0 undergoes head movement to Infl^0 and the two probes fuse (Coon and Bale,

2014). Third, a higher functional head Infl^0 probes the external argument for a [PARTICIPANT] ([PART]) feature. I discuss each of these components in further detail below.

Evidence for analyzing the theme signs as object agreement can be gleaned from the table in (37) below. Abstracting away from *-igw*, the remaining theme signs have a very predictable distribution: *-in* appears with a 2nd person object, *-i* appears with a 1st person object, *-aa* appears with a 3rd person object (proximate or obviative), and *-am* appears with an inanimate object. The remaining theme sign *-igw* is the only morpheme to break this pattern—its distribution, and the conditions on its distribution, must therefore be accounted for (see Oxford 2014).

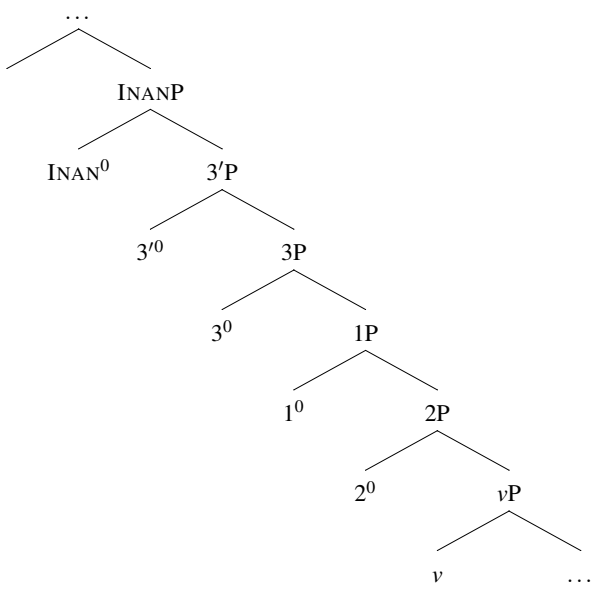
(37) *Theme sign distribution (Independent)*

S \ O	2	1	3 PROX	3 OBV	INAN
2	REFL	*-i*	*-aa*	*-aa*	*-am*
1	*-in*	REFL	*-aa*	*-aa*	*-am*
3 PROX	–	–	REFL	*-aa*	*-am*
3 OBV	–	–	–	REFL	*-am*

To account for the distribution of *-igw*, I follow Preminger (2014) in treating Agree as a fallible operation. The controversial proposal that Agree can fail without crashing the derivation is motivated by languages with person hierarchy effects, such as Nishnaabemwin and other Algonquian languages, as well as Kichean (Mayan). In languages that exhibit these patterns, the derivation must seemingly allow a 'range' of successful Agree. In Nishnaabemwin, for example, the 2nd person prefix *gi-* appears over all other person prefixes, regardless of the grammatical role of the 2nd person argument. To explain this pattern, we could propose an uninterpretable/unvalued [*u*addressee] probe that finds the 2nd person argument as subject or object. However, the probe must be able to be satisfied with a 1st person argument if there is no 2nd person, which in turn must be able to be satisfied with a 3rd person argument if there are no arguments that are speech act participants.

Alternatively, we could build the Nishnaabemwin person hierarchy into the syntactic spine itself, as illustrated below, but this would make for an inelegant model. There is no further motivation for positing such a structure other than its ability to describe the empirical facts.

(38)



Agree's success or failure on both Infl^0 and Voice^0 in Nishnaabemwin conditions the spell-out of a theme sign on Infl^0 once the probes fuse, as in (39). It is important to emphasize that probe fusion is not a post-syntactic morpho-phonological fusion of features. Rather, each probe searches separately with unique matching criteria, but it necessarily follows that failure to Agree on one probe results in failure for the whole probe. Thus, failure to Agree for Infl^0 results in failure to Agree for fused Infl^0+Voice^0 (see Coon and Bale 2014 for a more detailed discussion).

(39) *Agree fails on Infl^0*

Infl^0 ⇔ *igw*

Agree succeeds on Infl^0

Infl^0 ⇔ *in* / _ Voice$^0_{[\pi,\ \text{PART},\ \text{ADDR}]}$

⇔ *i* / _ Voice$^0_{[\pi,\ \text{PART}]}$

⇔ *aa* / _ Voice$^0_{[\pi]}$

⇔ *am* / elsewhere

The theme sign *-igw* spells-out just in case Infl^0 fails, regardless of whether Voice^0 is successful or not. If Infl^0 *does* succeed, the remaining theme signs are conditioned by the extent Voice^0 is successful: successful Agree on Voice^0 copies the entire ϕ-feature bundle of the internal argument, deriving *-in, -i, -aa* as object agreement. The theme sign *-am* spells-out just in case Agree fails on Voice^0. Thus, the theme signs *-igw* and *-am* both instantiate default morphology due to failed agreement.

Oxford (2014) proposes a similar model. In his analysis, a low probe on v^0 agrees with any internal argument in its c-command domain, which then moves to Spec,VoiceP equidistant to the external argument. Following Agree, Voice^0 spells out as *object agreement*: (i) INVERSE *-in* is 2nd person object agreement, (ii) DIRECT *-i* is 1st person object agreement, and (iii) DIRECT *-aa* is 3rd person object agreement. A second, higher probe on Infl^0 then agrees with

the best-matching argument in Spec,VoiceP, spelling-out as the INVERSE *-igw* just in case Infl^0 Agrees with the same argument as Voice^0. Importantly, two distinct probes spell-out different theme signs, despite their complementary distribution.

My proposal posits two probes as well, but they work together via fusion to spell-out all of the theme signs in Voice^0. This process creates a typically closer relationship between probes and arguments in the standard clausal spine, thus deriving the complementary distribution of theme signs.

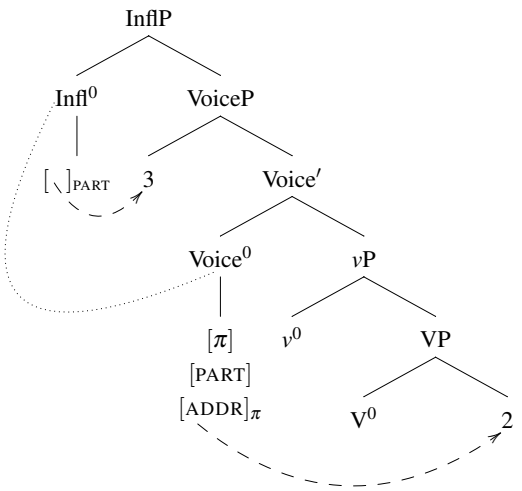
4.2.1 The Distribution of *-igw*

The theme sign *-igw* spells-out when Infl^0 fails to find a [PARTICIPANT] feature in the external argument. Importantly, a successful Agree operation on Voice^0 does not bear on the spell-out of *-igw* on Infl^0. Consider the sentence in (3a), repeated as (40) below.

(40) gi-waabam-**igw**
2-see.VTA-INV
'She/he sees you.' (Valentine, 2001)

First, Voice^0 probes the 2nd person internal argument for a [PERSON] feature. Agree succeeds as the 2nd person argument has this feature. Second, Voice^0 moves into Infl^0 and the probes fuse. Third, Infl^0 probes the 3rd person external argument for a [PARTICIPANT] feature. Agree fails as the 3rd person argument does not have this feature. This process is illustrated in the tree below in (41).

(41)



Failure to Agree on Infl^0 triggers the spell-out of *-igw*, as in (42).

(42) Infl^0 ⇔ *-igw*

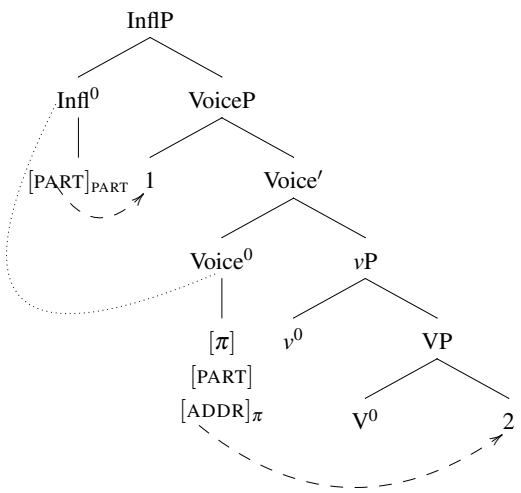
4.2.2 The Distribution of *-in*

The theme sign *-in* spells-out when: 1) Voice^0 succeeds in finding a [PERSON] feature in the internal argument, and 2) Infl^0 succeeds in finding a [PARTICIPANT] feature in the external argument. Consider the sentence in (1b), repeated as (43) below.

(43) gi-waabam-**in**
2-see.VTA-INV
'I see you.' (Valentine, 2001)

First, Voice^0 probes the 2nd person internal argument for a [PERSON] feature. Agree succeeds as the 2nd person argument has this feature, triggering object agreement. Second, Voice^0 moves into Infl^0 and the probes fuse. Third, Infl^0 probes the 1st person external argument for a [PARTICIPANT] feature. Agree succeeds as the 1st person argument has this feature. This process is illustrated in the tree below in (44).

(44)



Agree's success on both Voice^0 and Infl^0 triggers the spell-out of *-in* on Infl^0, as in (45).

(45) Infl^0 $\Leftrightarrow$ *-in* / _ Voice^0$_{[\pi,\ \text{PART},\ \text{ADDR}]}$

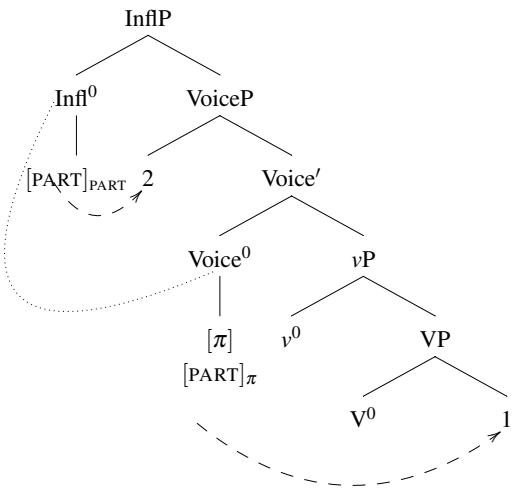
4.2.3 The Distribution of *-i*

The theme sign *-i* spells-out when: 1) Voice^0 succeeds in finding a [PERSON] feature in the internal argument, and 2) Infl^0 succeeds in finding a [PARTICIPANT] feature in the external argument. Consider the sentence in (1a), repeated as (46) below.

(46) gi-waabam-**i**
2-see.VTA-DIR
'You see me.' (Valentine, 2001)

First, Voice^0 probes the 1st person internal argument for a [PERSON] feature. Agree succeeds as the 1st person argument has this feature, triggering object agreement. Second, Voice^0 moves into Infl^0 and the probes fuse. Third, Infl^0 probes the 2nd person external argument for a [PARTICIPANT] feature. Agree succeeds as the 2nd person argument has this feature. This process is illustrated in the tree below in (47).

(47)



Agree's success on both Voice^0 and Infl^0 triggers the spell-out of *-i* on Infl^0, as in (48).

(48) Infl^0 $\Leftrightarrow$ *-i* / _ Voice$^0_{[\pi,\ \text{PART}]}$

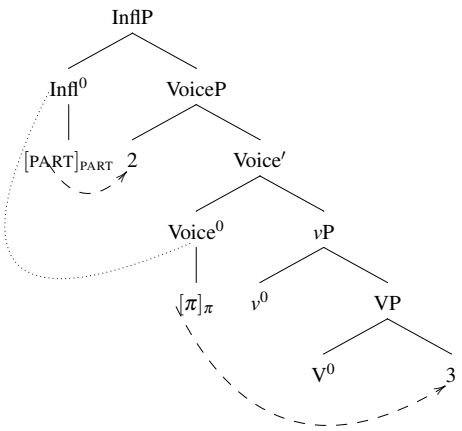
4.2.4 The Distribution of *-aa*

The theme sign *-aa* spells-out when: 1) Voice^0 succeeds in finding a [PERSON] feature in the internal argument, and 2) Infl^0 succeeds in finding a [PARTICIPANT] feature in the external argument. Consider the sentence in (2a), repeated as (49) below.

(49) gi-waabam-**aa**
2-see.VTA-DIR
'You see him/her.' (Valentine, 2001)

First, Voice^0 probes the 3rd person internal argument for a [PERSON] feature. Agree succeeds as the 3rd person argument has this feature, triggering object agreement. Second, Voice^0 moves into Infl^0 and the probes fuse. Third, Infl^0 probes the 2nd person external argument for a [PARTICIPANT] feature. Agree succeeds as the 2nd person argument has this feature. This process is illustrated in the tree below in (50).

(50)



Agree's success on both Voice^0 and Infl^0 triggers the spell-out of *-aa* on Infl^0, as in (51).

(51) Infl^0 $\Leftrightarrow$ *-aa* / _ Voice$^0{}_{[\pi]}$

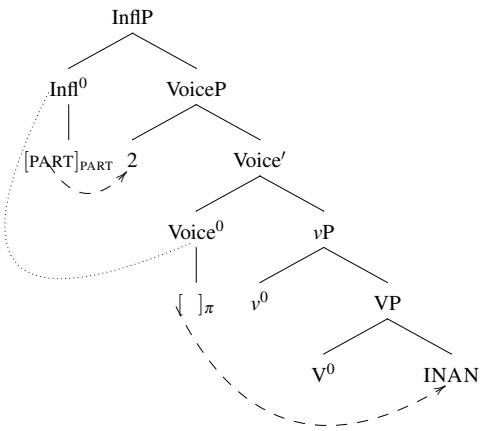
4.2.5 The Distribution of *-am*

The theme sign *-am* spells-out when: 1) Voice^0 fails in finding a [PERSON] feature in the internal argument, and 2) Infl^0 succeeds in finding a [PARTICIPANT] feature in the external argument. Consider the sentence in (5), repeated as (52) below.

(52) gi-waabamd-**am**-n
2-see.VTI-INAN-NON.PL
'You see it$_{inan}$.' (Valentine, 2001)

First, Voice^0 probes the inanimate internal argument for a [PERSON] feature. Agree fails as the inanimate argument lacks this feature. Second, Voice^0 moves into Infl^0 and the probes fuse. Third, Infl^0 probes the 2nd person external argument for a [PARTICIPANT] feature. Agree succeeds as the 2nd person argument has this feature. This process is illustrated in the tree below in (53).

(53)



Agree's success on Infl^0 and Agree's failure on Voice^0 triggers the spell-out of *-am* on Infl^0, as in (54), resulting in a elsewhere form.

(54) Infl^0 ⇔ *-am* / elsewhere

In summary, Voice^0 probes the internal argument for a [PERSON] feature, whereas Infl^0 probes the external argument for a [PARTICIPANT] feature. The Agree operation may fail for one or both of these probes; crucially, failure to Agree does not crash the derivation. Following Agree, Voice^0 moves into Infl^0 and the probes fuse, conditioning the theme sign spell-out on Infl^0 according to the Vocabulary Insertion rules below in (55).

(55) *Agree fails on Infl^0*

Infl^0 ⇔ *igw*

Agree succeeds on Infl^0

Infl^0 ⇔ *in* / _ Voice$^0_{[\pi,\ \text{PART, ADDR}]}$

⇔ *i* / _ Voice$^0_{[\pi,\ \text{PART}]}$

⇔ *aa* / _ Voice$^0_{[\pi]}$

⇔ *am* / elsewhere

The theme sign *-igw* spells-out if Infl^0 fails to find a [PARTICIPANT] feature in the external argument, regardless of Voice^0's success. If Infl^0 *does* succeed in finding a [PARTICIPANT] feature, the spell-out of the theme signs *-in, -i, -aa* are contingent on Voice^0's success in finding a [PERSON] feature in the internal argument. The theme sign *-in*, *-i*, and *-aa* spell-out when Voice^0 succeeds, triggering object agreement of a 2nd person, 1st person, or 3rd person internal argument, respectively. Finally, the theme sign *-am* spells-out when Voice^0 fails to Agree.[5]

[5]While I have only focused on singular arguments here, the distribution of theme signs involving plural arguments patterns accordingly. The 1st person inclusive argument, indicated by the prefix *ni-* and the suffix *-naan*, is the external argument in *ni-waabam-**aa**-naan* 'We$_{incl}$ see him/her', but it is the internal argument in *ni-waabam-**igw**-naan* 'She/he sees us$_{incl}$.' The theme sign *-aa* appears in *ni-waabam-**aa**-naan* as Infl^0 succeeds in finding a [PARTICIPANT] feature in the 1st person inclusive external argument, and Voice^0 succeeds in finding a [PERSON] feature in the 3rd person internal argument. In contrast, the theme sign *-igw* appears in *ni-waabam-**igw**-naan* as Infl^0 fails to find a [PARTICIPANT] feature in the 3rd person external argument.

Chapter 5

The Nishnaabemwin Inverse System in the Conjunct

This chapter extends the analysis proposed in chapter 4 to the Nishnaabemwin *conjunct* paradigm, a class of verbal inflection typically used in subordinate clauses. I outline the distribution of the theme signs in the conjunct, showing that their distribution further supports an analysis based on object agreement. In order to derive the conjunct agreement patterns, I posit that the probe on Infl^0 could be relativized to search for an alternative feature. This shift in relativization allows for a straightforward application of the proposed analysis in both paradigms since the spell-out rules introduced in chapter 4 remain the same.

5.1 Distribution of the Theme Signs

In this section, I will briefly review the distribution of agreement markers in the *conjunct*, a verbal paradigm generally used for embedded clauses. While the theme signs *-igw, -in, -i, -aa* appear in the conjunct as well, there are some striking differences compared to their distribution in the independent. The agreement patterns in the conjunct paradigm further support an analysis of theme signs as object agreement, particularly the agreement slot immediately after the verb. Below, I illustrate each of these patterns.

The agreement markers that appear in the conjunct when both arguments are speech act participants are identical to the DIRECT and INVERSE theme signs in the corresponding contexts in the independent paradigm. Consider the sentences in (56) below. In (56a), *-i* appears when the 1st person is the object. In (56b), *-in* appears when the 2nd person is the object.

(56) a. waabmiyan
waabam-**i**-yan
see.VTA-2>1-2

'You see me.'

b. waabminaan
waabam-**in**-aan
see.VTA-1>1-2

'I see you.'

Consider the sentences in (57). In both sentences, the 3rd person is the object and *-aa* appears directly after the verb.

(57) a. waabmad
waabam-**a**-d
see.VTA-2>3-3

'You see him/her.'

b. waabmag
waabam-**a**-g
see.VTA-1>3-3

'I see him/her.'

The agreement patterns in (58) and (59) below provide compelling evidence that the theme signs are object agreement. Recall from section 2.1 that *-i* and *-in* seemed to correspond to, respectively, a DIRECT and INVERSE marker, and only in sentences with two speech act participant arguments. If these theme signs indeed encoded direction along an abstract person hierarchy, then we would expect the sentences in (58) to trigger the same theme signs as the sentences in (4), namely *-igw*. However, *-in* appears with the 2nd person object in the sentence in (58a), and *-i* appears with the 1st person object in the sentence in (58b). Notably, both of the arguments in these sentences are *not* speech act participants.

(58) a. waabmik
waabam-**in**-g
see.VTA-3>2-3

'He/she sees you.'

b. waabmid
waabam-**i**-d
see.VTA-3>1-3

'He/she sees me.'

Furthermore, the distribution of the INVERSE theme sign *-igw* in the conjunct is stricter than its distribution in the independent, only appearing in sentences with a 3rd person obviative (3′) subject. In (59a), *-aa* appears when the 3rd person proximate is the subject. In (59b), however, *-igw* appears when the 3rd person proximate is the object. If the theme signs actually encoded a directional relationship between pronominal arguments along a person hierarchy, the

variation between the DIRECT/INVERSE markers in the conjunct and independent paradigms is puzzling.

(59) a. waabmaad
waabam-**aa**-d
see.VTA-3>3′-3

'He/she$_{prox}$ sees him/her$_{obv}$.'

b. waabmigod
waabam-**igw**-d
see.VTA-3′>3-3

'He/she$_{obv}$ sees him/her$_{prox}$.'

To summarize, the theme sign distribution in the conjunct paradigm supports the proposal that the Nishnaabemwin theme signs are object agreement markers (see Oxford 2014 for more discussion). Compare the table in (6) in section 2.1 repeated as (60) below to the table in (61).

(60) *Theme sign distribution (independent)*

S \ O	2	1	3 PROX	3 OBV
2	REFL	*-i*	*-aa*	*-aa*
1	*-in*	REFL	*-aa*	*-aa*
3 PROX	*-igw*	*-igw*	REFL	*-aa*
3 OBV	*-igw*	*-igw*	*-igw*	REFL

(61) *Theme sign distribution (conjunct)*

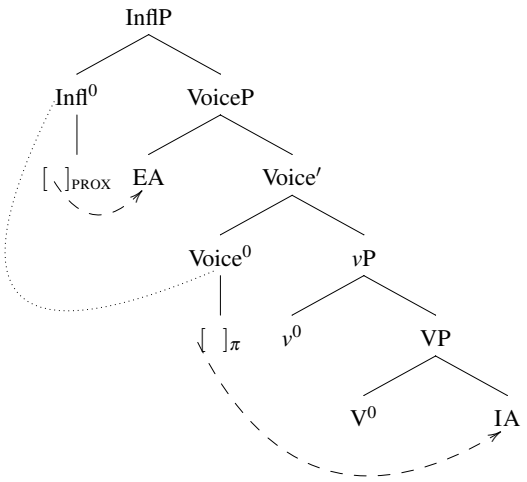
S \ O	2	1	3 PROX	3 OBV
2	REFL	*-i*	*-aa*	*-aa*
1	*-in*	REFL	*-aa*	*-aa*
3 PROX	*-in*	*-i*	REFL	*-aa*
3 OBV	*-igw*	*-igw*	*-igw*	REFL

The distinction between the DIRECT theme signs *-i, -aa* and the INVERSE theme signs *-in, igw* is less clear in the conjunct paradigm. The INVERSE theme sign *-in* and the DIRECT theme signs *-i, -aa* consistently appear as object agreement markers: *-in* appears with 2nd person objects, *-i* appears with 1st person objects, and *-aa* appears with 3rd person objects. The INVERSE theme sign *-igw* only appears with 3rd person obviative subjects, a stricter distribution that suggests *-igw* may have different licensing properties than the other theme signs.

5.2 Deriving the Theme Signs

This section extends the analysis outlined in chapter 4 to the conjunct paradigm. In the independent, Infl^0 was proposed to be relativized to search for [PARTICIPANT]; the failure or success of the probe to find [PARTICIPANT] resulted in, respectively, the spell-out of *-igw* (failed agreement) or *-in, -i, -aa, -am* (object agreement from successful Agree). In order to account for the agreement patterns in the conjunct, we could hypothesize that the probe on Infl^0 is relativized to search for [PROXIMATE] rather than [PARTICIPANT]. This is shown below.

(62)



Recall from the previous section that *-in, -i, -aa* are much more prevalent in the conjunct, further supporting an object agreement analysis. The distribution of *-igw* in the conjunct is more narrow than its distribution in the independent; *-igw* only appears when the subject is 3rd person obviative and the object is 3rd person proximate. This slight variation suggests that Infl^0 can successfully Agree in more contexts, i.e. with all pronominals bearing the [PROXIMATE] feature. Shifting the feature relativization on Infl^0 from [PARTICIPANT] to [PROXIMATE] thus derives the conjunct agreement paradigm in much the same way as the independent agreement paradigm, down to the same spell-out rules proposed in chapter 4 and repeated as (63) below.

(63) *Agree fails on Infl^0*

Infl^0 ⇔ *igw*

Agree succeeds on Infl^0

Infl^0 ⇔ *in* / _ Voice$^0_{[\pi,\ \text{PART},\ \text{ADDR}]}$

⇔ *i* / _ Voice$^0_{[\pi,\ \text{PART}]}$

⇔ *aa* / _ Voice$^0_{[\pi]}$

⇔ *am* / elsewhere

As in section 4.2.1, the theme sign *-igw* spells-out when Agree on Infl^0 fails. That is, Infl^0 fails to find a [PROXIMATE] feature in the external argument. Consider the sentence in (55b), repeated as (64) below.

(64) waabmigod
waabam-**igw**-d
see.VTA-3′>3-3

'He/she$_{obv}$ sees him/her$_{prox}$.'

First, Voice^0 probes the 3rd person proximate internal argument for a [PERSON] feature, resulting in a successful Agree operation. Second, Voice^0 moves into Infl^0 and the probes fuse. Third, Infl^0 probes the 3rd person obviative external argument for a [PROXIMATE] feature, resulting in an unsuccessful Agree operation. Failure to Agree on Infl^0 triggers the spell-out of *-igw*, as in (65).

(65) Infl^0 ⇔ *-igw*

As in section 4.2.2, the theme sign *-in* spells-out when Agree on Infl^0 *and* Voice^0 are successful. That is, Infl^0 finds a [PROXIMATE] feature in the external argument and Voice^0 finds a [PERSON] feature in the internal argument. Consider the sentence in (56b), repeated as (66) below.

(66) waabminaan
waabam-**in**-aan
see.VTA-1>1-2

'I see you.'

First, Voice^0 probes the 2nd person internal argument for a [PERSON] feature, resulting in a successful Agree operation. Second, Voice^0 moves into Infl^0 and the probes fuse. Third, Infl^0 probes the 1st person external argument for a [PROXIMATE] feature, also resulting in a successful Agree operation. Agree's success on both Voice^0 and Infl^0 triggers the spell-out of *-in* on Infl^0, as in (67).

(67) Infl^0 ⇔ *-in* / _ Voice$^0_{[\pi,\ \text{PART},\ \text{ADDR}]}$

As in section 4.2.3, the theme sign *-i* spells-out when Agree on Infl^0 *and* Voice^0 are successful. That is, Infl^0 finds a [PROXIMATE] feature in the external argument and Voice^0 finds a [PERSON] feature in the internal argument. Consider the sentence in (56a), repeated as (68) below.

(68) waabmiyan
waabam-**i**-yan
see.VTA-2>1-2

'You see me.'

First, Voice^0 probes the 1st person internal argument for a [PERSON] feature, resulting in a successful Agree operation. Second, Voice^0 moves into Infl^0 and the probes fuse. Third, Infl^0 probes the 2nd person external argument for a [PROXIMATE] feature, also resulting in a successful Agree operation. Agree's success on both Voice^0 and Infl^0 triggers

the spell-out of *-i* on Infl^0, as in (69).

(69) Infl^0 $\Leftrightarrow$ *-i* / _ Voice$^0_{[\pi,\ \text{PART}]}$

As in section 4.2.4, the theme sign *-aa* spells-out when Agree on Infl^0 *and* Voice^0 are successful. That is, Infl^0 finds a [PROXIMATE] feature in the external argument and Voice^0 finds a [PERSON] feature in the internal argument. Consider the sentence in (59a), repeated as (70) below.

(70) waabmaad
waabam-**aa**-d
see.VTA-3>3′-3
'He/she$_{prox}$ sees him/her$_{obv}$.'

First, Voice^0 probes the 3rd person obviative internal argument for a [PERSON] feature, resulting in a successful Agree operation. Second, Voice^0 moves into Infl^0 and the probes fuse. Third, Infl^0 probes the 3rd person proximate external argument for a [PROXIMATE] feature, also resulting in a successful Agree operation. Agree's success on both Voice^0 and Infl^0 triggers the spell-out of *-aa* on Infl^0, as in (71).

(71) Infl^0 $\Leftrightarrow$ *-aa* / _ Voice$^0_{[\pi]}$

In summary, both Voice^0 probes the internal argument for a [PERSON] feature, whereas Infl^0 probes the external argument for a [PROXIMATE] feature. The Agree operation may fail for one or both of these probes; crucially, failure to Agree does not crash the derivation. Following Agree, Voice^0 moves into Infl^0 and the probes fuse, conditioning the theme sign spell-out on Infl^0 according to the Vocabulary Insertion rules below in (72).

(72)

Agree fails on Infl^0	*Agree succeeds on Infl*^{0}
Infl^0 $\Leftrightarrow$ *igw*	Infl^0 $\Leftrightarrow$ *in* / _ Voice$^0_{[\pi,\ \text{PART},\ \text{ADDR}]}$
	$\Leftrightarrow$ *i* / _ Voice$^0_{[\pi,\ \text{PART}]}$
	$\Leftrightarrow$ *aa* / _ Voice$^0_{[\pi]}$

In summary, the theme sign *-igw* spells-out if Infl^0 fails to find a [PROXIMATE] feature in the external argument, regardless of Voice^0's success. If Infl^0 *does* succeed in finding a [PROXIMATE] feature, the spell-out of the theme signs *-in, -i, -aa* are contingent on Voice^0's success in finding a [PERSON] feature in the internal argument. The theme sign *-in*, *-i*, and *-aa* spell-out when Voice^0 succeeds, triggering object agreement of a 2nd person, 1st person, or 3rd person internal argument, respectively.

Chapter 6

Obviation and Remaining Issues

This section discusses obviation and an issue it creates for the analysis proposed in this paper. As mentioned in section 2, obviation is a grammatical distinction between 3rd person arguments, and it is partially dependent on discourse: obviative arguments typically appear when a proximate argument has already been introduced and it obligatorily triggers obviative marking on the verb and noun, as in (73) below.

(73) a. giiwisens o-gii-waabam-igo-**n** wagosh-**an**
boy 3-PST-see.VTA-INV-OBV fox-OBV
'The fox saw the boy.'

b. *giiwisens o-gii-waabam-igo wagosh
boy 3-PST-see.VTA-INV fox
'The fox saw the boy.'

Obviative marking is also obligatory on possessed nouns when the possessor is 3rd person, as illustrated in the sentences below.

(74) a. gi-danis
2-daughter
'Your daughter.'

b. ni-danis
1-daughter
'My daughter.'

c. o-danis-**an**
3-daughter-OBV
'His/her daughter.'

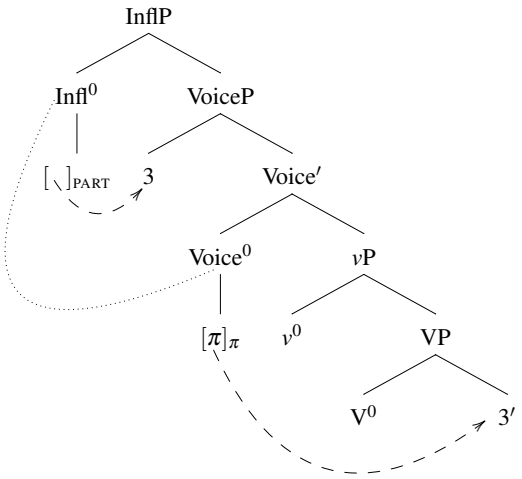
A complication for the analysis proposed in this thesis arises in contexts with 3rd person proximate subject and a 3rd person obviative object. Recall from section 4.2.1 that the predicted theme sign for these contexts is *-igw*, which spells-out when Infl^0 fails to find a [PARTICIPANT] feature in the external argument. Consider the sentence in (75)

below, repeated from (4a).

(75) o-waabam-**aa**-n
3-see.VTA-DIR-OBV
'She/he$_{prox}$ see him/her$_{obv}$.'

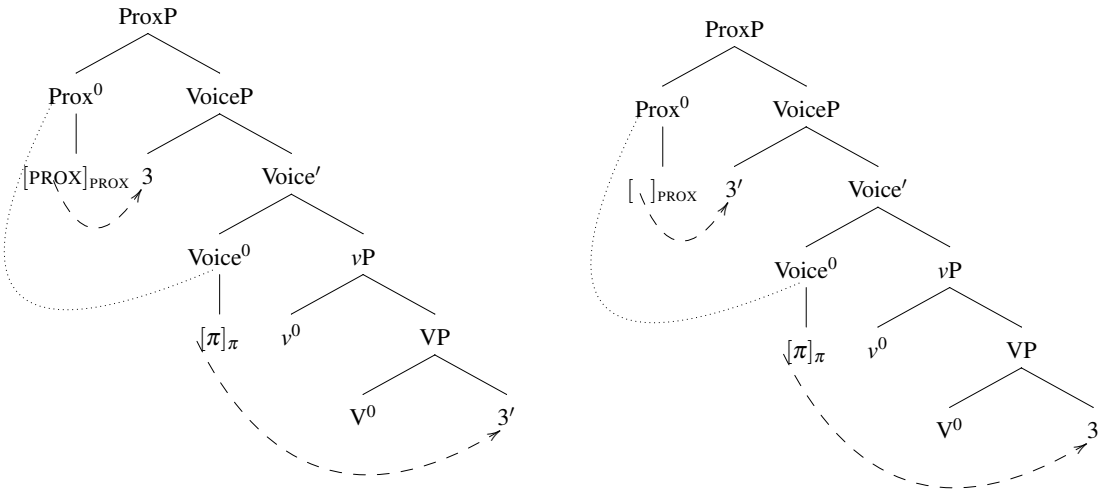
First, Voice^0 probes the 3rd person obviative object for a [PERSON] feature. Agree succeeds as the 3rd person argument has this feature, triggering 3rd person object agreement. Second, Voice^0 moves into Infl^0 and the probes fuse. Third, Infl^0 probes the 3rd person proximate subject for a [PARTICIPANT] feature. Agree fails as the 3rd person argument does not have this feature. This process is illustrated in the tree below in (76). Failure to Agree on Infl^0 predicts the spell-out of *-igw*—however, the attested theme sign in these contexts is *-aa*, as in (75) above.

(76)



One possible solution is to propose that obviation triggers a 'ProxP' rather than an InflP, which only projects in contexts with two 3rd person arguments as part of a c-selectional requirement. Under this approach, a probe on Prox^0 searches for a [PROXIMATE] feature; Voice^0 still searches for a [PERSON] feature. Prox^0 will succeed with a 3rd person proximate subject, conditioning the spell-out of *-aa* (similar to Infl^0 in section 4.2.3). Prox^0 will fail with a 3rd person obviative subject, conditioning the spell-out of *-igw* (similar to Infl^0 in section 4.2.1). This process correctly predicts the spell-out of *-aa* in *o-waabam-**aa**-n* 'She/he$_{prox}$ see him/her$_{obv}$' and *-igw* in *o-waabam-**igo**-n* 'She/he$_{obv}$ see him/her$_{prox}$', as illustrated in the trees below.

(77) *Agree succeeds on Prox*^{0} *Agree fails on Prox*^{0}



Although this solution seems to rely on the arbitrary projection of a ProxP only in contexts with two 3rd person arguments, there is some evidence that obviation triggers an additional or alternative step in the syntactic derivation. In either the nominal or verbal domains, obviation only occurs in contexts with two 3rd person arguments. This was illustrated in the sentences in (74) above, repeated as (78) below.

(78) a. gi-danis
2-daughter
'Your daughter.'

b. ni-danis
1-daughter
'My daughter.'

c. o-danis-**an**
3-daughter-OBV
'His/her daughter.'

The sentences in (79) below illustrate obviation in the verbal domain. In sentences with a speech act participant subject and a 3rd person obviative object, there is no obviative agreement on the verb, as in (79a). However, obviative agreement on the verb is obligatory just in case the subject is 3rd person proximate *and* the object is 3rd person obviative, as in (79b).

(79) a. gi-waabam-aa o-danis-**an**
2-see.VTA-DIR 3-daughter-OBV
'You see her/his daughter.'

b. o-waabam-aa-**n** o-danis-**an**
3-see.VTA-DIR-OBV 3-daughter-OBV
'She/he$_{prox}$ sees her/his daughter$_{obv}$.'

These patterns raise an important question concerning the syntactic—or non-syntactic—nature of the [PROXIMATE] feature and obviation. In this thesis, I included [PROXIMATE] in the feature geometric representations of 2nd, 1st, and 3rd person proximate arguments, following Lochbihler (2012) and Oxford (2014). However, the inclusion of the [PROXIMATE] feature seems arbitrary since its sole purpose is to distinguish between the 3rd person proximate and 3rd person obviative pronominals. Furthermore, the differences in obviative marking in the sentences in (79) suggest that [PROXIMATE] and obviation may be closely related as the presence of two 3rd person arguments in a given domain—nominal or verbal—triggers a formal, morphosyntactic distinction. These patterns are reminiscent of dependent case theories; under these models, case is assigned only when two nominals are in a given domain. As seen above, obviative marking is required on the nominal when the possessor and possessee are both 3rd person; similarly, obviative marking is required on the verb only when the subject and object are both 3rd person. I leave this issue to future research; though obviation interacts with the inverse system, analyzing the finer details of obviative marking is beyond the scope of this thesis.

Chapter 7

Conclusion

The model developed in this thesis builds on the major concepts in Preminger (2014) and Oxford (2014). I follow Preminger (2014) in his proposal that a fallible Agree operation can explain person hierarchy effects. However, Preminger's analysis cannot straightforwardly account for all of the Nishnaabemwin inverse-marking patterns. To extend his analysis to the data at hand, I follow Oxford (2014) in analyzing these patterns as a complex form of object agreement. I proposed that the two sets of DIRECT and INVERSE theme signs can be analyzed as a combination of object agreement and failed agreement.

In chapter 2, I presented the empirical facts with respect to Nishnaabemwin theme sign distribution in the independent paradigm, i.e. verbs that appear in matrix clauses. Five theme signs complementarily appear suffixed to the verb in different environments; DIRECT *-i* and INVERSE *-in* appear when both arguments are speech act participants, whereas DIRECT *-aa* and INVERSE *-igw* appear when one of the arguments is not a speech act participant. The inanimate theme sign *-am* appears when the internal argument is inanimate.

I outlined previous theories in chapter 3, discussing their respective models and weaknesses. Aissen (1997) proposes the interaction between two abstract hierarchies derives the Nishnaabemwin agreement patterns: the *person* hierarchy ranks arguments $2 > 1 > 3$ proximate > 3 obviative, whereas the *relational* hierarchy ranks SUBJECT $>$ OBJECT. A DIRECT theme sign appears when an argument ranks higher on both hierarchies; an INVERSE marker appears when an argument ranks higher on one hierarchy but lower on the other. However, the two hierarchies alone fail to account for the different sets of DIRECT and INVERSE theme signs. For example, there are three DIRECT theme signs: *-i* appears when both arguments are speech act participants, *-aa* appears when at least one argument is not a speech act participant, and *-am* appears with inanimate objects. The hierarchies alone cannot motivate this three-way distinction; agreement mechanisms must be sensitive to person and animacy features as well.

Lochbihler (2012) does not argue that abstract hierarchies are instantiated in the grammar, proposing instead

that person hierarchy effects are epiphenomenal. Lochbihler's analysis crucially rests on the distinction between *checked* features and *entailed* features; entailed features become activated when a superset feature is checked. Under this model, a single licensing probe on v^0 agrees with multiple arguments. The probe is complex, searching for [$u\pi$], [*u*proximate], [*u*participant], and [*u*addressee]; each feature enters the derivation unchecked and unentailed. As each pronominal bears a different set of ϕ features, the featural content of v^0 after Agree will vary according to the arguments present in the clause; v^0 spells-out the theme signs according to the particular specifications of un/checked and un/entailed features. While Lochbihler's analysis effectively derives the theme sign distribution, the formalized checked/entained distinction can be argued to be a formalized hierarchy thus undermining an analysis meant to do away with hierarchies.

Importantly, the discussion of Oxford (2014) motivates the analysis of Nishnaabemwin theme signs as object agreement markers: the so-called DIRECT theme signs *-in* and *-aa* and the so-called INVERSE theme sign *-i* have a predictable distribution consistent with object agreement. If we abstract away from the INVERSE theme sign *-igw*, *-in* appears with 2nd person objects, *-i* appears with 1st person objects, and *-aa* appears with 3rd person objects. The remaining theme sign *-igw* is the only theme sign that does not straightforwardly generalize to object agreement. This assymetry also motivates the proposal of two probes in deriving the theme sign distribution: one probe spells-out as *-in, -i, -aa* and *-am*, i.e. the more obvious object agreement markers, while another probe spells-out as the more puzzling *-igw*.

The discussion of Preminger (2014) motivated the proposal that Agree is fallible—namely, the narrow syntax should be able to allow a 'range' of successful, partial, and unsuccessful agreement in order to derive person hierarchy effects. A probe that searches for an [ADDRESSEE] feature, for example, would derive the effect of the highest-ranked 2nd person pronominal, but the probe cannot crash the derivation in contexts with no 2nd person pronominals. Although the proposal that Agree is fallible is a controversial view, Preminger shows that it is possible to analyze (and, as in some cases for better studied languages, *re*-analyze) certain morphemes as morphosyntactic evidence of failed agreement.

In chapter 4, I outlined my analysis, applying both Preminger (2014) and Oxford (2014) to the core Nishnaabemwin agreement paradigm. I followed Oxford (2014) in analyzing *-in, -i, -aa*, and *-am* as object agreement. Following Preminger (2014), I proposed that *-igw* is the morphological exponence of failed agreement. I also showed that the shared morphological slot of the theme signs can be derived with probe fusion, a process proposed by Coon and Bale (2014) in order to account for Mi'gmaq (Algonquian) agreement patterns. Under this view, probes search separately, but failure for one probe implicates failure for the fused probes. I derived the basics of Nishnaabemwin inverse-marking with a two-probe agreement system under the crucial principle that Agree can fail without crashing the derivation. First, a lower probe on Voice^0 searches for a [PERSON] feature in the internal argument. Second, Voice^0 moves to Infl^0 where the two functional heads fuse. Third, a higher probe on Infl^0 searches for a [PARTICIPANT]

feature in the external argument. As Voice^0 and Infl^0 fuse in the second stage in this process, all theme signs spell-out in Infl^0.

The spell-out of either failed agreement or object agreement follows from Agree's failure or success on Infl^0. If the Agree operation from Infl^0 fails, *-igw* spells-out. If the Agree operation from Infl^0 succeeds, *-in, -i, -aa* spell-out as object agreement according to Voice^0: *-in* marks a 2nd person object, *-i* marks a 1st person object, and *-aa* marks a 3rd person object. The proposed analysis derives the core Nishnaabemwin agreement patterns without appealing to a dependency between abstract person hierarchies and agreement mechanisms, thus contributing to a growing body of research that argues person hierarchies to be epiphenomenal (e.g. McGinnis 1999, Béjar and Rezac 2009, Nevins 2011, Lochbihler 2012, among others).

In chapter 5, I showed that this model can also account for Nishnaabemin inverse-marking patterns in the *conjunct* paradigm, i.e. verbs that appear in subordinate clauses. While it is generally difficult in the literature to account for the agreement patterns in both clauses, the analysis proposed here only needs one adjustment on Infl^0. In the independent, Infl^0 searches for a [PARTICIPANT] feature. In the conjunct, Infl^0 searches for a [PROXIMATE] feature. Thus, there is no need to propose two completely separate sets of syntactic processes to derive the agreement patterns in the two paradigms.

I discussed remaining issues in chapter 6, namely the difficulties presented by obviation. My analysis fails to account for sentences with a 3rd person proximate subject and a 3rd person obviative object: the predicted theme sign is *-igw*, but the attested theme sign is *-aa*. I outlined the possible solution that obviation adds a layer of complexity such that, in contexts with only 3rd person arguments, a 'ProxP' is projected rather than an InflP. If Prox^0 seaches for a [PROXIMATE] feature, Agree will succeed with 3rd person proximate subjects (deriving *-aa*) and fail with 3rd person obviative subjects (deriving *-igw*). Although this is admittedly a less-than-satisfying solution, it is clear that the effect of obviation on agreement is an independent puzzle to the issues discussed in this thesis. For example, obviative marking is triggered on the verb just in case there is a 3rd person proximate subject and a 3rd person obviative object. Thus, I leave the complexities of obviation and its interaction with inverse-marking to future research.

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