A tale of two inverses

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Abstract

The functional-typological literature distinguishes two kinds of inverse constructions: inverse voice, in which the patient becomes the subject, and inverse alignment, in which the patient is agreed with like a canonical subject. In this literature, Algonquian languages are held to be the prototypical example of a system in which the two kinds of inverses coexist: the inverse is a "deep" voice construction in clauses with two third-person arguments and a "shallow" alignment pattern in clauses in which a third person acts on an SAP. This paper argues that this conclusion is correct and attempts to reconcile it with formal models of voice and agreement. It is proposed that despite their distinct syntactic underpinnings, both inverse constructions result in a derivation in which Voice lacks phi-features and Infl indexes only the patient. This shared outcome explains why the inverse appears to be a unified phenomenon from a morphological perspective even though its syntactic correlates differ in third-person and SAP contexts.

1 Introduction

In an INVERSE construction, a transitive verb shows a special marker when its subject agreement slot is exceptionally controlled by the patient argument. The Ojibwe prefix *ni-* '1', for example, indexes the subject in the non-inverse forms in (1a–b), but in (1c), the inverse marker *-ikw* indicates that the prefix instead indexes the patient (data from Nichols 1980: 276–292).[1]

(1) a. nimaːčaː
ni- maːčaː
1- leave
'**I** leave'

b. niwaːpamaː
ni- waːpam -aː
1- see -3OBJ
'**I** see her'

c. niwaːpamik
ni- waːpam -ikw
1- see -INV
'she sees **me**'

A key question about inverse constructions is just how deep the inverse pattern runs in the grammar: is the subject-like treatment of the patient purely a matter of morphology, or does

[1]Glosses in this paper follow the Leipzig Glossing Rules, with the following additions: INAN = inanimate; INV = inverse; OBV = obviative; PX = proximate; SUB = subordinator. The terms *agent* and *patient* are used as shorthands for the external and internal arguments of a transitive verb, even for non-agentive verbs such as 'see'. Algonquian third-person singular forms are translated with English feminine gender by default, as suggested by Proulx (1985: 59).

the patient in fact raise above the agent to become the structural subject? In the literature on Algonquian languages, where the term "inverse" originated (Howse 1844), this issue has long been controversial (e.g. Rhodes 1976, 1994, LeSourd 1976, Jolley 1982, Dahlstrom 1986a, McGinnis 1999, Bruening 2001, 2005).

The nature of inverse patterns has been clarified in functional-typological research (Givón 1990, 1994, Gildea 1994). The key insight, using the terminology of Gildea (1994), is that the term "inverse" can be understood on two levels: INVERSE ALIGNMENT is a morphological pattern in which the patient is indexed like a canonical subject, while INVERSE VOICE is a syntactic construction in which the patient *is* the subject. We can thus distinguish two kinds of inverses: a DEEP INVERSE, in which the morphology and syntax are both inverse, and a SHALLOW INVERSE, in which the morphology is inverse but the syntax is not. A further important finding is that the two kinds of inverses can coexist within a language (Givón 1994: 29): the same inverse morphology may correlate with inverse syntax in some contexts but not others.

To my knowledge, the distinction between deep and shallow inverses has not filtered into formal work on inverse systems, which typically takes an all-or-nothing view. Using the Algonquian language Ojibwe as an example, Lochbihler (2012) proposes an analysis in which inverse morphology *never* reflects inverse syntax, while Oxford (2019b) proposes an analysis in which inverse morphology *always* reflects inverse syntax. However, Givón (1994) and Gildea (1994) both identify Algonquian as an example of a system in which the two kinds of inverses coexist within the same language. The proposals of Lochbihler and Oxford are thus both too extreme. A more adequate account should work like Oxford's analysis in the deep inverse contexts, deriving inverse morphology from inverse syntax, and like Lochbihler's analysis in the shallow inverse contexts, deriving inverse morphology from non-inverse syntax—while not losing the fact that the actual morphological pattern is the same either way. In short, we need two distinct derivations for the same agreement pattern, within the same language. The goal of the current paper is to show one way that this can be done.

After providing an orientation to inverse patterns (§2), outlining the contexts in which Algonquian languages show inverse morphology (§3) and inverse syntax (§4), and assessing the existing literature (§5), the paper seeks to answer the following questions, which involve Algonquian data but are of broader relevance to the theoretical study of voice and alignment:

1. How is the shallow inverse (inverse morphology without inverse syntax) derived? (§6)
   Proposal: The shallow inverse occurs when Infl agrees with the patient's features even though the patient has not raised above the agent.

2. How is the deep inverse (inverse morphology and inverse syntax) derived? (§7)
   Proposal: The deep inverse is triggered by a special "ergative" Voice head that causes the patient to raise above the agent; Infl thus agrees with the patient.

3. Why do the deep inverse and shallow inverse share the same morphology? (§7.2)
   Proposal: Inverse morphology results from any derivation in which Infl agrees only with the patient, which is the case for both the deep inverse and the shallow inverse.

4. Why is the deep inverse available only in third-person interactions? (§8)
   Proposal: The "ergative" Voice head disrupts the usual mechanism for SAP licensing and is thus compatible only with derivations in which both arguments are third person.

The proposed analysis helps to align the theoretical study of inverse systems with the insights of the functional-typological literature and provides a model of the Algonquian inverse that is more nuanced than existing theoretical accounts. The distinction between deep and shallow inverses also reveals points of comparison between the Algonquian inverse and the voice systems in Austronesian (Aldridge 2012) and Mayan (Coon et al. 2014).

2 Inverse voice and inverse alignment

The concepts of grammatical voice and morphosyntactic alignment both involve the relationship between the verb's argument structure and the grammatical structure of the clause. Drawing on existing literature (Klaiman 1991; Nichols 1992; Givón 1994; Gildea 1994; Zúñiga & Kittilä 2019), I assume the following working definitions:

(2) a. *Voice:* A contrastive grammatically-marked pattern for mapping the arguments of a predicate to syntactic roles (e.g., active voice, passive voice)

b. *Alignment:* The non-contrastive conditioning of morphological markers that index or flag the arguments of a predicate (e.g., accusative alignment, ergative alignment)

Under these definitions, the English passive, as in *The window was broken (by Sue)*, qualifies as a voice construction: it contrasts with the active *Sue broke the window*, it is grammatically marked (*be* + *-en*), and it affects the mapping of arguments to syntactic roles. On the other hand, an English inchoative (*The window broke*) does not qualify, since it is not grammatically marked, nor does topicalization (*The window, Sue broke*), since it does not affect syntactic roles, nor does the alternation in Hindi between an ergative pattern in perfective clauses and an accusative pattern in imperfective clauses, since the two patterns are in complementary rather than contrastive distribution: the case pattern is determined by aspect and cannot be independently manipulated by the speaker, thus exemplifying alignment rather than voice.

As shown most clearly by Gildea (1994), inverse patterns can be identified at both of the levels in (2). Following Givón (1994: 8) and using the terminology of Gildea (1994), the two levels of inverse patterning can be defined as follows, with "subject position" understood in generative terms as the highest A-position in the clause:

(3) a. *Inverse voice:* A transitive voice construction in which the patient is mapped to the subject position but the agent remains a core argument

b. *Inverse alignment:* A transitive morphological pattern in which the features of the patient are mapped to the agreement slot that canonically indexes the subject

The deeper of the two kinds of inverse patterns is the inverse voice, also known as the "patient voice" (Zúñiga & Kittilä 2019), in which the patient is mapped to subject position. The inverse voice resembles a passive in its promotion of the patient, but there are two crucial differences between the inverse and passive voices. Syntactically, the inverse voice differs from the passive in that the agent remains a core argument rather than being demoted to an oblique role (Haude & Zúñiga 2016, Legate 2021). Pragmatically, the inverse voice typically serves to highlight a topical patient, whereas the passive voice typically serves to suppress an especially non-topical agent (Shibatani 1985), a difference that causes the inverse to be used more fre-

quently than the passive in languages that have both voice constructions (Givón 1994: 11). The properties of the active, inverse, and passive voices are summarized in Table 1.[2]

Voice	Structure	Topicality	Schematic example
Active	$[_{\text{SUBJ}}$ AG $]$ AG PAT	agent > patient	AG eat PAT
Inverse	$[_{\text{SUBJ}}$ PAT $]$ AG PAT	patient > agent	PAT eat-INV AG
Passive	$[_{\text{SUBJ}}$ PAT $]$ (AG_{OBL}) PAT	patient >> agent	PAT eat-PSSV (by AG)

Table 1: Syntax and pragmatics of active, inverse, and passive voice

The shallower of the two kinds of inverse patterns is inverse alignment, in which the patient is agreed with like a canonical subject. Inverse alignment occurs automatically when the patient *is* the subject, as in a clause with inverse voice. It also sometimes occurs in clauses with active voice, when the patient, despite not being the subject, is nevertheless indexed like one because its phi-features are more prominent than those of the agent.

In view of the distinction between inverse voice and inverse alignment, a given morphological inverse pattern could potentially be either "deep" or "shallow", as defined in (4).[3]

(4) a. Deep inverse (inverse voice)
- Clause has inverse morphology (patient indexed like subject), inverse syntax (patient is subject), and inverse pragmatics (patient more topical than agent)
- Use of the inverse is optional/contrastive

b. Shallow inverse (inverse alignment in the absence of inverse voice)
- Clause has inverse morphology but default syntax and pragmatics
- Use of the inverse is obligatory/non-contrastive

Although the two kinds of inverses look the same on the surface, they differ in two crucial ways. First, the deep inverse, as a voice construction, has inverse syntax and pragmatics, as can be diagnosed by syntactic tests such as binding (Bruening 2001) and text-based measures of topicality (Thompson 1989, 1994), while the shallow inverse, as an agreement pattern with no connection to voice, does not.[4] Second, the deep inverse, as a voice construction, is con-

[2] In characterizing the inverse and passive voices as uniformly promoting the patient to subject position, I depart from Givón (1994), who distinguishes "promotional" and "non-promotional" versions of both the inverse and passive voices. However, I suggest that the examples of the non-promotional passive voice in Givón 1994: 14, such as Spanish *se*, may instead be syntactically active IMPERSONAL constructions in which the subject is referentially defective rather than structurally demoted (Blevins 2003; see MacDonald 2017 for Spanish *se*), while the examples of the non-promotional inverse voice may instead be instances of inverse alignment without inverse voice, as proposed in this paper for the Algonquian SAP inverse.

[3] My distinction between "deep" and "shallow" inverses parallels Givón's (1994: 22) distinction between "pragmatic" and "semantic" inverses, with the caveat noted in footnote 2.

[4] Bruening's (2001) work is cited here because of his pioneering use of binding data to diagnose the syntax of Algonquian inverse forms, but it should be noted that Bruening did not distinguish between deep and shallow

trastive: in contexts where the inverse voice is available, the speaker can express a given event using either the active voice ('AG eat PAT') or the inverse voice ('PAT eat-INV AG'). The shallow inverse, on the other hand, is simply the obligatory realization of agreement morphology in a particular context, and is thus non-contrastive: if the language requires inverse alignment when a third person acts on an SAP, then a speaker has no choice but to express a clause like 'she sees me' using inverse morphology even if the syntax and pragmatics are not inverse.

As mentioned above, deep and shallow inverses are known to coexist within the same language, a fact that raises difficulties for existing formal analyses. Givón (1994: 30) and Gildea (1994: 222) have proposed that the coexistence of deep and shallow inverses is a natural stage in the overall life cycle of an inverse construction, as shown in the following diachronic pathway:

(5) Life cycle of an inverse (simplified from Givón 1994: 30, Gildea 1994: 222)
passive > deep inverse > deep and shallow inverses > shallow inverse

According to this pathway, the deep inverse develops first, often through the reanalysis of an existing passive voice, as argued for Algonquian by McLean (2001). The deep inverse typically arises in clauses with two third-person arguments and contrastively marks the syntactic inversion of the patient. The inverse alignment pattern shown by such clauses may subsequently be extended to clauses that are not syntactically inverse but nevertheless have a prominent patient, normally an SAP. The result of this extension is a mixed system in which deep and shallow inverses occur in different contexts: the contrastive deep inverse is confined to 3-on-3 interactions while the non-contrastive shallow inverse is confined to 3-on-SAP interactions. The final stage in the life cycle is the loss of the syntax and pragmatics of inverse voice, leaving the language with only a shallow inverse, which at this point is simply a non-contrastive agreement pattern with no syntactic or pragmatic correlates in any context.

The stages at which the inverse is uniformly deep and uniformly shallow are not particularly challenging for a formal analysis: see, for example, the uniformly deep and shallow analyses of the Ojibwe inverse proposed by Oxford 2019b and Lochbihler 2012, respectively. What is more challenging is the mixed stage, at which the deep and shallow inverses coexist and are expressed by the same morphological pattern despite their wholly distinct syntax and pragmatics. This mixed stage does not readily follow from existing formal accounts of inverse marking in Algonquian (e.g. Bruening 2001, 2005, Bliss 2005, Béjar & Rezac 2009, Lochbihler 2012, Oxford 2019b, among others), and yet it is at exactly this mixed stage that both Givón (1994: 29–30) and Gildea (1994: 223) place Algonquian—a conclusion that, if correct, indicates that existing all-or-nothing accounts of the Algonquian inverse are inadequate.

3 Inverse morphology in Algonquian

This section provides the empirical foundation for an investigation of the Algonquian inverse by describing the formation and distribution of the inverse agreement pattern. The next section will turn to the question of whether this pattern is deep or shallow, but in this section the goal is simply to establish what inverse agreement looks like and where it can be observed.

inverses; his findings led him to conclude that in Passamaquoddy, all inverse forms are, in the terms of the current paper, deep.

Inverse agreement is one of three agreement patterns that can be distinguished for transitive verbs in Algonquian languages. All three patterns make use of the basic agreement template in (6) (terminology from Bloomfield 1946 and Goddard 1969, 2004, 2007).

(6) Algonquian transitive agreement template
(Prefix$_i$)–Stem–Theme sign–**Central suffix$_i$**–(Peripheral suffix)

This template applies to both the INDEPENDENT ORDER inflections that occur canonically in main clauses and the formally distinct CONJUNCT ORDER inflections that occur canonically in embedded clauses. The elements in parentheses do not appear in all verb forms. When the prefix appears, it patterns together with the central suffix as a single discontinuous "central agreement" marker (Goddard 1969: 104), e.g. *ni-…-inaːn* '1PL'. To aid recognition, the theme sign is underlined and the central agreement is bolded in all data in this paper. The peripheral suffix does not play an important role in this paper, but it does appear in some examples.

The features of the arguments of a transitive verb can be mapped to slots in the agreement template according to three distinct patterns: the NEUTRAL pattern, the DIRECT pattern, and the INVERSE pattern (Oxford forthcoming). In the neutral agreement pattern, exemplified by the Moose Cree conjunct forms in (7) (Ellis 1971: 90), the theme sign indexes the patient (*-aː* '3OBJ', *-i* '1OBJ') and the central agreement flexibly indexes either the agent, the patient, or both arguments simultaneously, as in the forms in (7) (*-akiht* '1PL:3', *-amiht* '3:1PL').

(7) Neutral: theme sign indexes patient, central agreement indexes agent and/or patient

a. waːpamakiht
waːpam -aː **-akiht**
see -3OBJ **-1PL:3**
'**we** see **her**' (1PL→3 conjunct)

b. waːpamiyamiht
waːpam -i **-amiht**
see -1OBJ **-3:1PL**
'**she** sees **us**' (3→1PL conjunct)

In the direct agreement pattern, exemplified by the Plains Cree forms in (8) (Wolfart 1973: 41–42), the theme sign indexes the patient (*-aː* '3OBJ') and the central agreement indexes the agent: *ni-…-inaːn* '1PL' in the independent form in (8a) and *-yaːhk* '1PL' in the conjunct form in (8b).

(8) Direct: theme sign indexes patient, central agreement indexes agent

a. niwaːpamaːnaːn
ni- waːpam -aː **-inaːn**
1- see -3OBJ **-1PL**
'**we** see her' (1PL→3 indep't)

b. waːpamaːyaːhk
waːpam -aː **-yaːhk**
see -3OBJ **-1PL**
'**we** see her' (1PL→3 conjunct)

The neutral and direct agreement patterns are similar, as they both involve an inner layer of object agreement expressed by the theme sign, and the distinction between the two patterns is of little importance in this paper. The inverse agreement pattern, however, is quite different. In the inverse pattern, exemplified by the Plains Cree forms in (9) (Wolfart 1973: 41–42), the theme sign is realized as an "inverse marker" (*-ikw* 'INV') rather than the usual object agreement marker, and the central agreement indexes only the patient, never also the agent: *ni-…-inaːn* '1PL' in the independent form in (9a) and *-yaːhk* '1PL' in the conjunct form in (9b).

(9) Inverse: theme sign is inverse marker, central agreement indexes patient

a. niwaːpamikonaːn
ni- waːpam -ikw **-inaːn**
1- see -INV **-1PL**
'she sees **us**' (3→1PL indep't)

b. waːpamikoyaːhk
waːpam -ikw **-yaːhk**
see -INV **-1PL**
'she sees **us**' (3→1PL conjunct)

The inverse alignment pattern is of chief interest in the current paper, so it is worthwhile to more closely examine its conditioning. Across the Algonquian family, and within most individual Algonquian languages, the inverse pattern appears in two main contexts, which I will refer to as the SAP INVERSE (Gildea 1994: 188) and the THIRD-PERSON INVERSE. An SAP inverse form is an inverse form in which an SAP is acted upon by a third person, as in (10b).

(10) SAP inverse: third person acts on SAP (Moose Cree independent)

a. DIRECT
niwaːpamaːnaːn
ni- waːpam -aː **-inaːn**
1- see -3OBJ **-1PL**
'**we** see her' (1→3)

b. INVERSE
niwaːpamikonaːn
ni- waːpam -ikw **-inaːn**
1- see -INV **-1PL**
'she sees **us**' (3→1)

A third-person inverse form is an inverse form in which a more topical third person is acted upon by a less topical third person (Rhodes 2017). In the most common examples, the more topical third person is grammatically PROXIMATE and the less topical third person is grammatically OBVIATIVE (Goddard 1984, 1990; Rhodes 1990a; Thomason 2003), as in (11b).

(11) Third-person inverse: obviative acts on proximate (Plains Cree conjunct)

a. DIRECT
waːpamaːt
waːpam -aː **-t**
see -3OBJ **-3**
'**PX** sees OBV'

b. INVERSE
waːpamikot
waːpam -ikw **-t**
see -INV **-3**
'OBV sees **PX**'

The third-person inverse can also appear when both arguments are obviative, a configuration that arises when the context includes a distinct proximate third person. In such cases, the direct pattern is used when the obviative agent is more topical than the obviative patient, as in (12a), and the inverse pattern is used when the patient is more topical than the agent, as in (12b).

(12) Third-person inverse: less topical obviative acts on obviative (Plains Cree conjunct)

a. DIRECT
waːpamaːyit
waːpam -aː **-yit**
see -3OBJ **-3OBV**
'**OBV_1** sees OBV_2'

b. INVERSE
waːpamikoyit
waːpam -ikw **-yit**
see -INV **-3OBV**
'OBV_2 sees **OBV_1**'

For detailed discussion of forms with two obviative arguments, see Wolvengrey 2011: 218–220, Rhodes 2017, Appelbaum 2019, and Goddard & Dahlstrom forthcoming.

A final relevant observation is that although the SAP inverse and the third-person inverse show the same inverse agreement pattern, their distributions differ in an interesting way, as noted in pan-Algonquian surveys by Oxford (2014) and Despić & Hamilton (2018). The distribution of the third-person inverse is invariant: across the entire family, it unfailingly appears whenever a third person is acted upon by a less topical third person. The distribution of the SAP inverse, in contrast, is highly variable both within and across languages: inverse agreement appears in some 3→SAP forms but not others, and the precise details differ from language to language. In the most conservative distribution, going back to Proto-Algonquian (Bloomfield 1946: 98–102), independent 3→SAP forms uniformly show the inverse pattern while conjunct 3→SAP forms uniformly do not. Many languages have extended the inverse pattern to certain conjunct 3→SAP forms as well, but the degree of extension varies, as shown in Table 2, which summarizes the distribution of the SAP inverse in conjunct forms in Moose Cree (Ellis 1971), Woods Cree (Starks 1992), Plains Cree (Wolfart 1973), Delaware (Goddard 1969), and Massachusett (Goddard & Bragdon 1988).

	Moose Cree	Woods Cree	Plains Cree	Delaware	Massachusett
3→1SG	neutral	neutral	neutral	neutral	**inverse**
3→2SG	neutral	neutral	neutral	**inverse**	**inverse**
3→1PL	neutral	neutral	**inverse**	**inverse**	**inverse**
3→2PL	neutral	**inverse**	**inverse**	**inverse**	**inverse**

Table 2: Agreement patterns in conjunct 3→SAP forms

In summary, some Algonquian transitive verb forms show an inverse pattern in which the central agreement, which canonically indexes the agent, switches to indexing the patient, and the theme sign, which canonically indexes the patient, is replaced by an inverse marker. Such inverse morphology occurs invariably in "third-person inverse" contexts, when a third person is acted upon by a less topical third person, and variably in "SAP inverse" contexts, when an SAP is acted upon by a third person. The question of interest in this paper is whether or not inverse morphology corresponds with inverse syntax: is the Algonquian inverse deep or shallow?

4 Inverse syntax in Algonquian

Givón (1994: 22) and Gildea (1994: 188) both propose for Algonquian that the third-person inverse involves inverse voice (a deep inverse, in my terms) while the SAP inverse involves inverse alignment without inverse voice (a shallow inverse). It is beyond the scope of this paper to assess the full range of evidence bearing on this proposal or the degree to which the details vary across the Algonquian family, as there is already a substantial literature on related topics (§5). Here I limit myself to presenting four points of supporting evidence, involving contrast (§4.1), binding (§4.2), word order (§4.3), and long-distance agreement (§4.4). The first point establishes the overall validity of analyzing the third-person inverse, but not the SAP inverse, as a voice construction; the following three points provide more specific evidence that syntactic

inversion takes place in the third-person inverse but not the SAP inverse. This discussion will not prove beyond a shadow of doubt that the third-person inverse is deep and the SAP inverse is shallow in all Algonquian languages, but it should at least demonstrate that it is plausible for deep and shallow inverses to coexist within a single language, which means, in turn, that formal models of voice and alignment need to be able to account for this kind of system.

4.1 Evidence from contrast

As discussed in Section 2, a fundamental distinction between voice and alignment is that voice is contrastive while alignment is not: a marked voice construction such as the passive is an optional alternative to the default active voice, whereas an alignment pattern is simply the way the morphology obligatorily works in a given context. In Algonquian, the third-person inverse is contrastive, thus showing the behavior expected of a voice construction, while the SAP inverse is non-contrastive, thus showing the behavior expected of an alignment pattern.

The contrastive status of the third-person inverse is clearest when both arguments are obviative. In such cases, the clause can be expressed using either a direct or an inverse verb form, with the choice conditioned purely by topicality. Consider the Plains Cree clauses in (13) (Wolvengrey 2011: 219–220), which are both embedded under the matrix clause *Caːn kiskeːyihtam* 'John.PX knows'. Both clauses express an event in which a rabbit sees a wolf, and since the matrix subject 'John' is proximate, both embedded arguments are obviative. A direct form is used when the agent (rabbit) is more topical than patient (wolf), as in (13a), while an inverse form is used when the patient (wolf) is more topical than the agent (rabbit), as in (13b)—a clause whose most natural English translation is a long passive (Wolvengrey 2011: 175).

(13) a. anihi waːposwa eː-kiː-waːpamaːyit anihi mahihkana.
anihi waːposw-a eːˈ kiːˈ waːpam -aː **-yit** anihi mahihkan-a
that rabbit-OBV SUBˈ PSTˈ see -3OBJ **-3OBV** that wolf-OBV
'that **the rabbit.OBV** saw the wolf.OBV.' (direct)

b. anihi mahihkana eː-kiː-waːpamikoyit anihi waːposwa.
anihi mahihkan-a eːˈ kiːˈ waːpam -ikw **-yit** anihi waːposw-a
that wolf-OBV SUBˈ PSTˈ see -INV **-3OBV** that rabbit-OBV
'that **the wolf.OBV** was seen by the rabbit.OBV.' (inverse)

The same choice is available when one argument is proximate and the other is obviative. For example, an event in which Johnny helps Mary can be expressed using either a direct form with a proximate agent, as in (14a), or an inverse form with a proximate patient, as in (14b) (Wolvengrey 2011: 175). The choice between the two constructions is conditioned by "situation-specific, speaker-determined assignment of relative topicality" (Wolvengrey 2011: 176).

(14) a. Caːniy kiː-wiːciheːw Meːriːwa.
Caːniy kiːˈ wiːcih -eː **-w** Meːriy-wa
Johnny.PX.SG PSTˈ help -3OBJ **-3SG** Mary-OBV
'**Johnny.PX** helped Mary.OBV.' (direct)

b. Caːniːwa kiː-wiːcihik Meːriy.

Caːniy-wa kiː= wiːcih -ikw **-w** Meːriy
Johnny-OBV PST= help -INV **-3SG** Mary.PX.SG
'Johnny.OBV helped **Mary.PX**.' / '**Mary.PX** was helped by Johnny.OBV' (inverse)

The SAP inverse works differently, as observed by Wolfart (1991: 172) and Wolvengrey (2011: 173–175). When SAP arguments are involved, there is never a choice between direct and inverse paraphrases. Instead, the alignment pattern is fixed by the person features of the arguments: if an SAP acts on a third person, only the direct can be used, as in the Plains Cree form in (15a); if a third person acts on an SAP, only the inverse can be used, as in (15b).

(15) a. niwaːpamaːnaːnak
ni- waːpam -aː **-inaːn** -ak
1- see -3OBJ **-1PL** -3PL
'**we** see them' (1→3, direct)

b. niwaːpamikonaːnak
ni- waːpam -ikw **-inaːn** -ak
1- see -INV **-1PL** -3PL
'they see **us**' (3→1, inverse)

Unlike the third-person direct and inverse forms in (13) and (14) above, the forms in (15) are not paraphrases, as they reverse the identity of the agent and the patient. The status of an argument as an SAP or a third person is determined by the speech situation and cannot be freely manipulated by the speaker in the same way as the proximate-obviative contrast on third persons. There can thus never be a stylistic choice between the SAP direct and the SAP inverse, contrary to the situation in third-person forms (Lockwood & Macaulay 2012: 438). Each of the forms in (15) is the only way to express that particular configuration of arguments.

In summary, the use of the third-person inverse is contrastive—it provides an alternative morphosyntactic frame for an event that could also be expressed using a direct form—while the SAP inverse is simply the way the inflection obligatorily works in certain contexts. This difference is expected if the third-person inverse is a voice construction but the SAP inverse is not. This difference alone does not serve as a syntactic diagnostic, but it does establish the plausibility of positing a voice analysis for the third-person inverse but not the SAP inverse.

4.2 Evidence from binding

If the third-person inverse is indeed a voice construction that maps the patient to subject position while the SAP inverse is not, it should be possible to find evidence that the patient raises above the agent in the third-person inverse but not the SAP inverse. Some of the clearest evidence that this is the case comes from variable binding. As background, recall that in English, a quantified subject can bind a variable in non-subject position. In an active clause, the agent is the subject, and thus the agent can bind a variable in the patient, as in (16). In a passive clause, the patient is the subject, and thus the patient can bind a variable in the agent, as in (17).

(16) English active: agent can bind into patient but not vice versa
a. [Every woman]$_i$ kissed the man who loves her$_i$.
b. *The man who loves her$_i$ kissed [every woman]$_i$.

(17) English passive: patient can bind into agent but not vice versa
a. [Every woman]$_i$ was kissed by the man who loves her$_i$.
b. *The man who loves her$_i$ was kissed by [every woman]$_i$.

Third-person inverse forms can be observed to show the same reversal of binding relations as the English passive in all Algonquian languages in which relevant data is available: Plains Cree (Dahlstrom 1986b: 56–57; Blain 1997: 216), Western Naskapi (Brittain 2001: §4), Passamaquoddy (Bruening 2001: 117), Ojibwe (Lochbihler 2012: 100–101), Blackfoot (Bliss 2013: §7.4.1), and Meskwaki (Dahlstrom n.d.: 8-5). I have found the same pattern in fieldwork with a speaker of Oji-Cree, as illustrated by the examples in (18) and (19), which are parallel to the English examples in (16) and (17). The examples in (18) show that when a verb inflected in the direct agreement pattern has two third-person arguments, the agent can bind a variable in the patient, as in (18a), but the patient cannot bind a variable in the agent, as in (18b).[5]

(18) Oji-Cree direct: agent binds into patient but not vice versa

a. Kahkina ihkweːwak otoːciːmaːwaːn naːpeːwan kaː-saːkihikowaːc.

kahkina ihkweːwak **ot-** oːciːm -aː **-waː** -an naːpeːwan kaː= saːkih -ikw -waːc
all woman.PX.PL **3-** kiss -3OBJ **-3PL** -OBV man.OBV REL= love -INV -3PL
'[**All the women.PX**]$_i$ kiss the man.OBV who loves them$_i$.'
(can mean that each of the women kisses a different man)

b. Naːpeː kaː-saːkihiyaːc otoːciːmaːn kahkina ihkweːwan.

naːpeːw kaː= saːkih -aː -c **ot-** oːciːm -aː **-Ø** -an kahkina ihkweːwan
man.PX.SG REL= love -3OBJ -3SG **3-** kiss -3OBJ **-3SG** -OBV all woman.OBV
'**The man.PX who loves them**$_{\{j/*i\}}$ kisses [all the women.OBV]$_i$.'
(must mean that the man loves someone other than the women who he kisses)

The examples in (19) are the inverse equivalents of those in (18): the verb *oːciːm-* 'kiss' is inflected in the inverse agreement pattern rather than the direct pattern. In these examples, the binding relations are reversed: the patient can bind a variable in the agent, as shown in (19a), but the agent cannot bind a variable in the patient, as shown in (19b).

(19) Oji-Cree inverse: patient binds into agent but not vice versa

a. Kahkina ihkweːwak otoːciːmikowaːn naːpeːwan kaː-saːkihikowaːc.

kahkina ihkweːwak **ot-** oːciːm -ikw **-waː** -an naːpeːwan kaː= saːkih -ikw -waːc
all woman.PX.PL **3-** kiss -INV **-3PL** -OBV man.OBV REL= love -INV -3PL
'The man.OBV who loves them$_i$ kisses [**all the women.PX**]$_i$.'
(can mean that each of the women is kissed by a different man)

b. Naːpeː kaː-saːkihiyaːc otoːciːmikoːn kahkina ihkweːwan.

naːpeːw kaː= saːkih -aː -c **ot-** oːciːm -ikw **-Ø** -an kahkina ihkweːwan
man.PX.SG REL= love -3OBJ -3SG **3-** kiss -INV **-3SG** -OBV all woman.OBV
'[All the women.OBV]$_i$ kiss **the man.PX who loves them**$_{\{j/*i\}}$.'
(must mean that the man loves someone other than the women who kisses him)

The same reversal of binding relations obtains when both of the third-person arguments are obviative. The Oji-Cree clauses in (20) and (21) were all embedded under a clause with a

[5] In these Oji-Cree examples, the quantifier is plural (*kahkina* 'all'), in contrast to the singular quantifier *every* in the English examples. A variable binding interpretation is still possible here, as discussed by Bruening (2001: 101–104) for the parallel pattern in Passamaquoddy. To ensure that the binding interpretation was salient, I used storyboard-style images and confirmed verbally that in examples like (18a) there is more than one man.

proximate subject (*Te:pit oki:-wa:pama:n* 'David.PX saw'), thus forcing both of the arguments in the embedded clause to be obviative. Such clauses show exactly the same binding patterns as the main clauses in (18) and (19) above. The examples in (20) show that when the verb *pahkihte:hw-* 'hit' is inflected in the direct agreement pattern, the agent can bind a variable in the patient, as in (20a), but the patient cannot bind a variable in the agent, as in (20b).

(20) Oji-Cree direct with two obviatives: agent binds into patient but not vice versa

a. ...kahkina ihkwe:wan e:-pahkihte:hwa:c na:pe:wan ka:-ki:-ota:hpinikoc.

kahkina ihkwe:wan e:= pahkihte:hw -a: **-c** na:pe:wan ka:= ki:=
all woman.OBV SUB= hit -3OBJ **-3** man.OBV REL= PST=
ota:hpin -ikw -c
take -INV -3

'...[**all the women.OBV**]$_i$ hit the man.OBV who arrested them$_i$.'
(can mean that each of the women hit a different man)

b. ...na:pe:wan ka:-ki:-ota:hpina:c e:-pahkihte:hwa:c kahkina ihkwe:wan.

na:pe:wan ka:= ki:= ota:hpin -a: -c e:= pahkihte:hw -a: **-c** kahkina
man.OBV REL= PST= take -3OBJ -3 SUB= hit -3OBJ **-3** all
ihkwe:wan
woman.OBV

'...**the man.OBV who arrested them**$_{\{j/*i\}}$ hit [all the women.OBV]$_i$.
(must mean that the man arrested someone other than the women)

The examples in (21) show that when the verb *pahkihte:hw-* 'hit' is inflected in the inverse agreement pattern, the binding relations are reversed: the patient can bind a variable in the agent, as in (21a), but the agent cannot bind a variable in the patient, as in (21b).

(21) Oji-Cree inverse with two obviatives: patient binds into agent but not vice versa

a. ...kahkina ihkwe:wan e:-pahkihte:hikoc na:pe:wan ka:-ki:-ota:hpinikoc.

kahkina ihkwe:wan e:= pahkihte:hw -ikw **-c** na:pe:wan ka:= ki:=
all woman.OBV SUB= hit -INV **-3** man.OBV REL= PAST=
ota:hpin -ikw -c
take -INV -3

'...the man who arrested them$_i$ hit [**all the women**]$_i$.'
(can mean that each of the women was arrested and hit by a different man)

b. ...na:pe:wan ka:-ki:-ota:hpina:c e:-pahkihte:hikoc kahkina ihkwe:wan.

na:pe:wan ka:= ki:= ota:hpin -a: -c e:= pahkihte:hw -ikw **-c** kahkina
man.OBV REL= PST= take -3OBJ -3 SUB= hit -INV **-3** all
ihkwe:wan
woman.OBV

'...[all the women]$_i$ hit **the man who arrested them**$_{\{j/*i\}}$.'
(must mean that the man arrested someone other than the women who hit him)

The overall pattern, then, is that in a third-person direct form, it is possible only for the agent to bind into the patient, whereas in a third-person inverse form, it is possible only for the patient to bind into the agent, regardless of whether the arguments show a proximate-obviative asymmetry, as in (18) and (19), or are both obviative, as in (20) and (21). These restrictions are exactly what we expect if binding relations are determined by the A-positions of the arguments and the third-person inverse raises the patient to an A-position above the agent.[6]

Does the reversal of binding relations shown by the third-person inverse take place in the SAP inverse as well? That is, in an SAP inverse form, is the SAP patient able to bind a variable in the third-person agent? Here an immediate problem arises: in order to bind a variable at all, the SAP patient would need to be quantified, but quantification of SAPs is far more restricted than quantification of third persons. It is not an easy task to construct an SAP inverse configuration in which a quantified SAP patient binds a variable in the agent, and I know of no reports of such forms in the literature on Algonquian languages. In fact, the only attested example of variable binding in an SAP inverse form, reported by Bruening (2001: 131) for Passamaquoddy, actually involves the agent binding into the patient, as would be expected if there were no syntactic inversion. In this form, shown in (22), the quantified third-person agent 'no one' binds the variable 'his' inside the first-person plural patient 'me and his sister'. The binding relation in this SAP inverse form is the opposite of that in the third-person inverse forms.[7]

(22) Ma-te wen nwisukiluwehtakuwin nilun naka nekom mossisol.
[ma=te wen] **n-** wisukiluwehtuw -oq -uwi **-n** [$_{DP}$ nilun naka nekom mossisol]
[no one] **1-** be.mad.at -INV -NEG **-1PL** [$_{DP}$ us and 3SG 3.sister.OBV]
'[No one]$_i$ got mad at [$_{DP}$ **me and his$_i$ sister**].'

In summary, there is evidence from multiple Algonquian languages that the third-person inverse reverses binding relations, allowing the patient to bind into the agent, but there is no evidence that the SAP inverse does the same. The one relevant SAP inverse datapoint in the literature shows uninverted binding relations, with the agent binding into the patient. These findings are consistent with an analysis in which the third-person inverse is a voice construction that raises the patient above the agent but the SAP inverse is not.

4.3 Evidence from word order

Algonquian word order generally reflects pragmatic rather than grammatical roles (see, e.g., Dahlstrom 1995 for Meskwaki). If pragmatic factors are controlled, however, it may be possible to isolate an unmarked, pragmatically neutral word order in clauses with two overt third-person arguments, as has been proposed for the Odawa dialect of Ojibwe (Rhodes 1994: 436–438) and for East Cree (Junker 2004: 349–350). Interestingly, as discussed by Oxford (2019b: 985–986),

[6]The fact that inverse agreement correlates with reversed binding relations even when both arguments are obviative rules out an alternative analysis in which binding relations are determined by the proximate-obviative contrast rather than the A-positions of the arguments (Dahlstrom 1986a: 119; Lochbihler 2012: 103; Bliss 2013: 289–292). An alternative analysis in which the surface word order affects binding is also unlikely, since Bruening (2001: 112, 138) shows that word order has no effect on binding or quantifier scope in Passamaquoddy.

[7]As a reviewer points out, example (22) could be made to work with a syntactic inversion analysis if it were the case that movement applies only to the pronoun *nilun* 'us' rather than to the entire object DP. Whether such an analysis would be syntactically and semantically viable is a question that must be left to future work.

the unmarked word order in these languages differs in direct clauses (3PX→3OBV) and inverse clauses (3OBV→3PX). In Odawa, the unmarked order is VSO in direct clauses and VOS in inverse clauses. In East Cree, the unmarked order is VOS in direct clauses and VSO in inverse clauses. In both languages, the third-person inverse switches the unmarked order of the agent ("S") and patient ("O"), exactly as expected if the third-person inverse is a voice construction that reverses the syntactic positions of the two arguments (Oxford 2019b: 986).

Since Algonquian word order is generally determined by pragmatic factors, one might alternatively seek to explain the Odawa VSO-VOS and East Cree VOS-VSO alternations on pragmatic rather than syntactic grounds, thereby removing these alternations from the body of evidence in support of a syntactic analysis of the third-person inverse. There are two reasons to be suspicious of such a move, however. First, the alternations involve the *unmarked* word order, which is pragmatically neutral, and it would be unusual to claim that a pragmatically neutral word order is nevertheless determined pragmatically. Second, the unmarked orders in Odawa and East Cree are opposites: Odawa has VSO in direct and VOS in inverse; East Cree has VOS in direct and VSO in inverse. This crosslinguistic difference does not follow from a general pragmatic principle such as "place more topical material before less topical material", which would predict that both languages should show the same kinds of orders. A syntactic analysis, not a pragmatic analysis, seems most appropriate for this apparently arbitrary variation.

A further piece of word-order evidence comes from clauses with two obviative arguments in Plains Cree. As discussed above (§4.1), such clauses can be either direct or inverse, as shown by the examples in (23), repeated from (13) (Wolvengrey 2011: 219–220).

(23) a. anihi waːposwa eː-kiː-waːpamaːyit anihi mahihkana.

anihi waːposw-a eːˈ kiːˈ waːpam -aː **-yit** anihi mahihkan-a
that rabbit-OBV SUB= PST= see -3OBJ **-3OBV** that wolf-OBV
'that **the rabbit.OBV** saw the wolf.OBV.' (3OBV→3OBV direct)

b. anihi mahihkana eː-kiː-waːpamikoyit anihi waːposwa.

anihi mahihkan-a eːˈ kiː- waːpam -ikw **-yit** anihi waːposw-a
that wolf-OBV SUB= PST= see -INV **-3OBV** that rabbit-OBV
'that **the wolf.OBV** was seen by the rabbit.OBV.' (3OBV→3OBV inverse)

These examples, like the unmarked orders discussed above, show a word-order alternation: the direct clause in (23a) is SVO ('rabbit see wolf') while the inverse clause in (23b) is OVS ('wolf seen.by rabbit'). In this case, however, we are dealing not with *unmarked* orders, but rather with *fixed* orders: when both arguments are obviative, the preverbal nominal is obligatorily interpreted as the agent in a direct form and as the patient in an inverse form (Wolvengrey 2011: 219–220). The loss of flexible word order in obviative-on-obviative clauses reflects the fact that the verb inflection in such clauses is not sufficient to identify the roles of the two obviative arguments: the usual hierarchy-based logic is inapplicable when both arguments have the same rank (obviative). When this is the case, and in the absence of any contextual or encyclopedic knowledge that would disambiguate the roles of the arguments, the word order evidently takes up the job, producing the fixed orders in (23). These are exactly the orders predicted by a syntactic analysis in which the third-person inverse promotes the patient to the position normally occupied by the agent: SVO in direct clauses and OVS in inverse clauses.

In summary, we have seen that when pragmatic factors are kept at bay—that is, in third-on-third clauses with unmarked word order in Odawa and East Cree, as well as obviative-on-obviative clauses in Plains Cree—the positions of the agent and patient alternate as predicted by a syntactic analysis of the third-person inverse. This conclusion does not, however, extend to the SAP inverse: SAP arguments are expressed by an overt pronoun only when focused or topicalized (Dahlstrom 1988: 166–167), so there is no such thing as an unmarked order for an SAP argument. The word order diagnostic is thus inapplicable to the SAP inverse. From an acquisition perspective, word order provides a cue to the learner that syntactic inversion takes place in the third-person inverse, but no parallel cue exists for the SAP inverse, so, along with binding, this is another case in which we would expect learners to posit syntactic inversion in third-person inverse clauses but not in SAP inverse clauses.

4.4 Evidence from long-distance agreement

Many Algonquian languages show a long-distance agreement (LDA) pattern in which a matrix verb that takes an embedded clause as its complement can agree with an argument of the embedded clause. The languages vary with respect to exactly which arguments in the embedded clause are accessible to LDA (Fry & Hamilton 2016). In Innu, for example, LDA can target any pragmatically prominent argument in the embedded clause (Branigan & MacKenzie 2002), while in Plains Cree, LDA uniformly targets the embedded agent (Dahlstrom 1986a: 90).[8] In such languages, the conditioning of LDA does not necessarily tell us anything about structural subjecthood, since alternative pragmatic or semantic explanations of its conditioning are possible (Bruening 2005: 24–25).

An LDA pattern with clearer syntactic relevance has been reported for Odawa and Mi'kmaq. Rhodes (1994: 438–439) reports that for many speakers of Odawa, LDA is restricted to targeting the embedded agent when the embedded clause is direct, as in (24a), and the embedded patient when the embedded clause is inverse, as in (24b).[9]

(24) LDA alternation in Odawa

a. LDA *-aː* '3OBJ', *-ag* '3PL' targets agent 'the men.PX' in direct embedded clause

Ngikenmaːg ninwag giː-baːshkzwaːwaːd Maːgiːyan.

ni- gikenim -aː **-Ø** -ag [aniniw-ag giː= baːshkizw -aː **-waːd** Maːgiː-an]
1- know -3OBJ **-1SG** -3PL [man-PX.PL PST= shoot -3OBJ **-3PL** Marge-OBV]
'**I** know (of them) [that **the men.PX** shot Marge.OBV].'

b. LDA *-aː* '3OBJ', -Ø '3SG' targets patient 'Marge.PX' in inverse embedded clause

Ngikenmaː Maːgiː giː-baːshkzogod ninwan.

ni- gikenim -aː **-Ø** -Ø [Maːgiː giː= baːshkizw -igw **-d** aniniw-an]
1- know -3OBJ **-1SG** -3SG [Marge.PX.SG PST= shoot -INV **-3SG** man-OBV]
'**I** know (of her) [that the men.OBV shot **Marge.PX**].'

[8] More specifically, LDA in Plains Cree targets the nominal that ranks highest on the thematic hierarchy: the agent in a full-fledged transitive form (direct or inverse) and the patient in an agentless impersonal form (Dahlstrom 1986a: 90).

[9] Rhodes shows that the LDA pattern in (24) is the only possible pattern for these speakers: constructed examples in which LDA targets any other argument are judged ungrammatical.

Under an analysis in which the third-person inverse raises the patient above the agent, LDA in Odawa can be described simply as targeting the embedded subject, which is the agent in a third-person direct clause and the patient in a third-person inverse clause. The status of the SAP inverse with respect to this diagnostic cannot be ascertained, however, because the SAP inverse agreement pattern is absent from embedded clauses in Odawa (Rhodes 1994: 432; cf. Table 2 above), thus rendering the LDA diagnostic inapplicable.

More complete evidence comes from Mi'kmaq, a language in which embedded clauses show both the third-person inverse agreement pattern and the SAP inverse pattern (Quinn 2012). Hamilton (2015b: 100–101) reports that Mi'kmaq third-person forms show the same pattern as the Odawa forms in (24): LDA targets the agent of an embedded direct clause and the patient of an embedded inverse clause. Crucially, however, this pattern does not recur in the SAP inverse. When the embedded clause shows the SAP inverse agreement pattern, LDA targets the embedded *agent*, not the embedded patient (Hamilton 2015b: 100, fn. 8). This is shown by the example in (25) (Hamilton 2015a), in which the matrix verb obligatorily agrees with the 3SG agent of the embedded inverse-marked clause rather than the 2PL patient.[10]

(25) Geji:g gesalugsioq.
geji -Ø **-g** [gesal -ugsi **-oq**]
know -3OBJ **-1SG:3** [love -INV **-2PL**]
'**I** know (of **her**) [that she loves **you all**].'

The conditioning of LDA in Mi'kmaq can be summarized as follows. LDA generally targets the embedded agent. The third-person inverse reverses this pattern, requiring LDA to target the embedded patient, but the SAP inverse does not. If we assume that in Mi'kmaq, as in Odawa, LDA targets the embedded subject, then the differential patterning of LDA in third-person and SAP contexts indicates that the third-person inverse raises the patient to subject position but the SAP inverse does not. Mi'kmaq LDA thus provides evidence *for* syntactic inversion in the third-person inverse and *against* syntactic inversion in the SAP inverse.[11]

4.5 Summary: Inverse syntax in Algonquian

While falling short of a comprehensive study of inverse morphosyntax across Algonquian, this section has provided some evidence for a split analysis in which the third-person inverse is deep (inverse morphology and inverse syntax) while the SAP inverse is shallow (inverse morphology without inverse syntax). I do not claim that every Algonquian language necessarily works in exactly this way, but the facts seem at least persuasive enough to indicate that such a system *can* exist and thus ought to be derivable in a formal model of voice and agreement.

[10] If the matrix verb did agree with the embedded 2PL patient, its expected form would be *geju:loq* 'I know of you.PL' (*-ul* '2OBJ', *-oq* '2PL') rather than the attested *geji:g* 'I know of her' (*-Ø* '3OBJ', *-g* '1SG:3') (Fidelholtz 1999: 98; Francis & Hewson 2016: 164).

[11] One additional use of LDA as a diagnostic of syntactic inversion should be mentioned: Bruening (2001: 274–276) claims that in Passamaquoddy LDA constructions, island effects are absent when the matrix clause is inverse—either third-person inverse or SAP inverse—but not when it is direct. This pattern can be interpreted as evidence for syntactic inversion in both the third-person inverse and the SAP inverse. Bruening's findings have been disputed, however, by LeSourd (2019: 375), whose Passamaquoddy consultants show no island effects in LDA constructions regardless of whether the matrix clause is direct or inverse.

5 Existing approaches to the Algonquian inverse

It is not a new idea to conclude that the Algonquian third-person inverse is a voice construction while the SAP inverse is not. In fact, this view goes back to the originator of the terms "direct" and "inverse", Howse (1844), who, as Wolfart (1973: 26) observes, states that Cree third-person forms "in their Direct and Inverse significations are Active and Passive" while the direct and inverse forms that involve SAPs are "all expressed Actively" (Howse 1844: 255). These statements seem fully compatible with the distinction between the deep third-person inverse and the shallow SAP inverse that I have adapted from Givón (1994) and Gildea (1994). However, most work on the Algonquian inverse does not draw this distinction and instead assumes that all inverse forms in a given language have the same nature. Within the recent specialist literature on Algonquian languages, I am aware of only two parallels to the view of Howse (1844) and the more recent work of Givón (1994) and Gildea (1994). The first is Wolfart's (1991: 180) conclusion, echoing Howse (1844), that the Cree SAP inverse is less passive-like than the third-person inverse. The second is McGinnis's (1999: 18) conclusion that the Ojibwe inverse seems unlikely to involve syntactic inversion, except possibly in third-person forms. The current paper is intended to pick up on these insights and develop them into a complete analysis.

An analysis in which the third-person inverse is syntactic but the SAP inverse is not resolves a tension that runs through much existing work on the Algonquian inverse. On the one hand are proposals that inverse morphology always reflects syntactic inversion (e.g. Rhodes 1976, 1994, LeSourd 1976, Jolley 1982, Bruening 2001, Bliss 2005, Quinn 2006, Oxford 2019b). Such proposals account well for the properties of the third-person inverse, but their extension to the SAP inverse finds little motivation. On the other hand are proposals that inverse morphology never reflects syntactic inversion (e.g. Dahlstrom 1986a, n.d., Lochbihler 2012). Such proposals account well for the SAP inverse, but they fail to explain the syntactic effects of the third-person inverse on binding (§4.2) and word order (§4.3). Any attempt to shoehorn all inverse forms into the same analysis will run afoul of the fact that the third-person inverse and the SAP inverse have little in common beyond their shared morphological signature.

The recognition that the third-person inverse is a voice construction also highlights a weakness in existing formal accounts. Although Lochbihler (2012) and Oxford (2019b) differ on whether the inverse is syntactic, they both build upon the work of Béjar & Rezac (2009) to derive the distribution of the inverse from the person specifications in (26), which are enriched with a [Proximate] feature that distinguishes proximate third persons from obviatives.

(26)

SAP	3PX	3OBV
[Person]	[Person]	[Person]
[Proximate]	[Proximate]	
[Participant]		

The key proposal, following Béjar & Rezac (2009), is that the inverse reflects a special outcome of the Agree operation in contexts where the patient's person features are more specified than those of the agent. This account applies to both the SAP inverse (3→SAP), where only the SAP patient has the feature [Participant], and the third-person inverse (3OBV→3PX), where only the proximate patient has the feature [Proximate].

Although the [Proximate] feature in (26) correctly derives inverse marking in 3OBV→3PX forms, its empirical justification is otherwise dubious, since it is in fact the obviative, not the proximate, that is the marked member of the proximate-obviative contrast, both morphologically and distributionally (Wolfart 1978: 270). But even if we set this objection aside, there is a more serious problem for any analysis that would derive the third-person inverse from the phi-features of the arguments: as exemplified in (12), (13), (20), and (21) above, third-person forms show a direct-inverse contrast *even when both arguments are obviative*. In such cases there is no asymmetry between the phi-features of the two arguments upon which to build an Agree analysis, and yet the direct-inverse contrast is still available.[12] The existence of a direct-inverse contrast when both arguments are obviative does not follow from an analysis that reads the third-person inverse off of the phi-features of the arguments as a mechanical reflex of the Agree operation, but it is exactly what we expect if the third-person inverse is an optional voice construction that can be used whenever a transitive verb has two third-person arguments.

In summary, the distinction between the deep third-person inverse and the shallow SAP inverse has antecedents in the literature on Algonquian languages, but a full analysis along these lines has not been presented, and existing formal accounts are ill-equipped to deal with a heterogeneous inverse that is sometimes a voice construction and other times not. An adequate account must address the following questions: (1) How are the deep inverse and the shallow inverse derived? (2) Why do the two inverses show the same morphological pattern despite their distinct syntax? (3) Why does the deep inverse appear only in 3→3 contexts and the shallow inverse only in 3→SAP contexts? The remainder of the paper shows how these questions can be answered.

6 Deriving the shallow SAP inverse

The next two sections show inverse morphology can be derived in a unified way in both third-person and SAP contexts, even if the former context involves syntactic inversion while the latter context does not. Following my previous work (Oxford 2017b, 2019b), I assume that inverse morphology appears whenever Infl agrees only with the patient. The key new proposal is that this outcome can arise in two different ways: either because the patient becomes the structural subject, as in the deep third-person inverse, or because the patient's phi-features are especially attractive to the probe on Infl, as in the shallow SAP inverse. The proposal that there are two distinct syntactic paths to patient-only Infl-agreement explains why third-person and SAP inverse forms show the same morphological pattern even though their syntax differs.

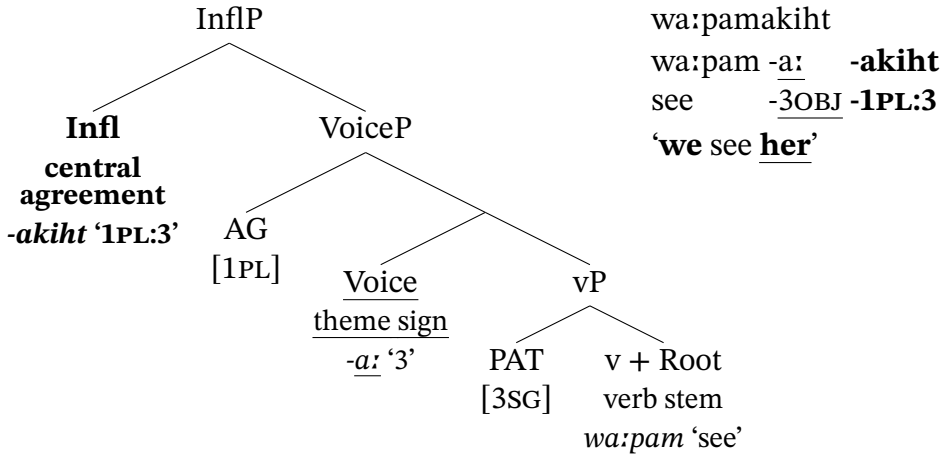
This section presents the analysis of the shallow SAP inverse; the next section turns to the deep third-person inverse. The analysis of the SAP inverse is presented in three steps. First some analytical assumptions are laid out (§6.1). Next, to establish a baseline for the analysis of Algonquian agreement, an account is presented for the neutral agreement pattern, which shows no direct/inverse properties (§6.2). Finally, a microparametric adjustment to the account of the neutral pattern is shown to derive the shallow SAP inverse pattern (§6.3).

[12] Some descriptions of Algonquian languages posit a "further obviative" category in contexts with two obviative third persons (Hockett 1966: 60), but, as Wolfart (1978) demonstrates, this analysis arises from a misinterpretation of obviative possessor agreement and cannot be maintained. The morphosyntax distinguishes just a single contrast between proximate and obviative. While it is no doubt the case that some obviative nominals are more topical than others, this is a matter of pragmatics, not morphosyntax.

6.1 Analytical assumptions

The analysis of Ojibwe agreement in Oxford 2019b is used as a starting point, with adjustments to correct the deficiencies discussed above (§5). Transitive clauses are assumed to have the underlying structure in (27), with the patient base-generated within vP and the agent base-generated as the specifier of VoiceP (cf. Legate 2014, Harley 2017). The internal structure of vP is irrelevant to the current paper and is glossed over as "v + Root" in (27).

(27)



As illustrated in (27) for the Moose Cree conjunct form *wa:pamakiht* '(that) we see her', the two layers of agreement inflection that appear on all Algonquian transitive verbs—the theme sign and the central agreement—are taken to realize Voice and Infl respectively, following, among others, Coon & Bale (2014), Hamilton (2017), and Oxford (2019b). This assumption entails the existence of phi-agreement probes on both Voice and Infl, the details of which are given in subsequent sections. The structure in (27) is illustrated using a conjunct verb form, but it is intended to hold for independent verb forms as well, which differ in that Infl can be realized as a prefix-suffix combination (Oxford 2019a; cf. Harbour 2008).

Agreement patterns are determined by the syntactic operation Agree, which occurs when a head H with unvalued phi-features searches its c-command domain for the closest accessible goal with matching features (Chomsky 2000, 2001). When a goal is found, H is valued by copying the entire phi-feature bundle of the goal (Béjar & Rezac 2009: 45). If two goals are equally close to H and both goals match all of H's unvalued features, H copies the phi-feature bundles of both goals (van Koppen 2005: 30; Oxford 2019b: 970). If one of the equally close goals matches more of H's unvalued features than the other goal does, H copies only the phi-feature bundle of the better-matching goal (Oxford 2019b: 970; cf. Coon & Bale 2014: 99; van Urk 2015: 173). I assume that a head X and the specifier of XP are equally close to a higher head, since both X and its specifier are dominated by the same set of maximal projections (e.g. Hornstein 2009: 40; Branigan 2011: 77); in (27), for example, Voice and [Spec,VoiceP] are equidistant from Infl.

6.2 SAP neutral (no inverse)

As described in Section 3, an Algonquian transitive verb inflects in one of three agreement patterns: neutral, direct, or inverse. In the neutral pattern, exemplified in (28), the theme sign (Voice) indexes the patient and the central agreement (Infl) indexes both arguments.

(28) SAP neutral forms (Moose Cree conjunct)

a. NEUTRAL (1→3)

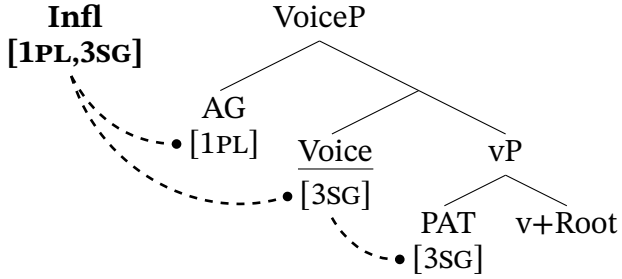
wa:pamakiht
wa:pam -a: **-akiht**
see -3OBJ **-1PL:3**
'**we** see **her**'

b. NEUTRAL (3→1)

wa:pamiyamiht
wa:pam -i **-amiht**
see -1OBJ **-3:1PL**
'**she** sees **us**'

Since neutral forms are neither direct nor inverse, they provide a useful baseline for the analysis of Algonquian agreement. To account for the occurrence of agreement on both Voice and Infl, I assume that both heads bear [*u*ϕ] probes. This assumption, together with the c-command restriction on Agree, is sufficient to derive the neutral agreement pattern. The Agree relations that Voice and Infl enter into are sketched in (29) for the 1PL→3 form in (28a).

(29)



Voice c-commands only one goal, the patient, so the probe on Voice will always be valued by the features of the patient. This derives the uniform pattern of object agreement shown by the theme sign in neutral forms. Infl, in contrast, c-commands two equidistant goals: the agent in the specifier of VoiceP and the patient's features on the Voice head. Since both goals match the [*u*ϕ] probe equally well, Infl is valued by both. This derives the portmanteau subject-object central agreement that appears in neutral forms such as (28a) and (28b).[13]

The analysis in (29) is revised from that in Oxford 2019b in one respect. The earlier paper posited that the Agree operation on Voice triggers movement of the patient to the specifier of VoiceP, thus making the object accessible to Infl. This movement is not posited in (29). Under the revised analysis in (29), the object's features are accessible to Infl not because the object itself has moved to the phase edge, but simply because its features have been copied there. Since there is no syntactic evidence for object movement in such forms, Occam's Razor favors an analysis that derives the agreement pattern without positing object movement, as in (29).

6.3 SAP inverse (shallow inverse)

The neutral agreement pattern shown by the Moose Cree conjunct forms in (28) is archaic and has been replaced by the direct and inverse patterns in some languages, such as Plains Cree (Dahlstrom 1989). The Plains Cree direct and inverse equivalents of the Moose Cree neutral forms are given in (30). In contrast to the neutral pattern, which allows the central agreement

[13] This account presupposes that the patient's features remain accessible to Agree operations even after they have been copied by Voice, in apparent contravention of Chomsky's (2000, 2001) Activity Condition. Baker (2008) has shown that languages vary parametrically in this respect; see Oxford 2017a for discussion specific to Algonquian.

(Infl) to index both arguments simultaneously, the direct and inverse patterns restrict the central agreement to indexing only the SAP argument. In the direct pattern, used when the SAP is the agent, the central agreement (Infl) indexes the SAP agent and the theme sign (Voice) indexes the third-person patient, as in (30a). In the inverse pattern, used when the SAP is the patient, the central agreement indexes the SAP patient and the patient agreement that would normally appear in the theme sign slot is replaced by the inverse marker *-ikw*, as in (30b).

(30) SAP direct and inverse forms (Plains Cree conjunct)

a. DIRECT (1→3)

wa:pama:ya:hk
wa:pam -a: **-ya:hk**
see -3OBJ **-1PL**
'**we** see her'

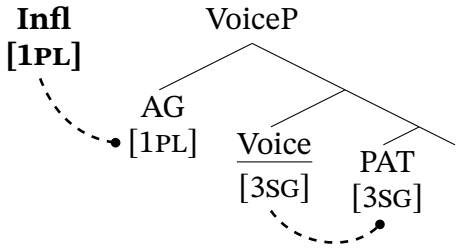
b. INVERSE (3→1)

wa:pamikoya:hk
wa:pam -ikw **-ya:hk**
see -INV **-1PL**
'she sees **us**'

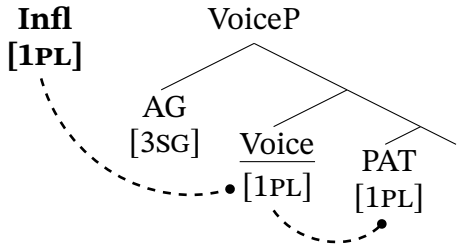
It was argued in Section 4 that SAP inverse forms such as (30b) are "shallow", showing inverse morphology in the absence of inverse syntax: although the SAP patient in (30b) is indexed by the central agreement (Infl) like a canonical subject, it does not raise above the agent to become the structural subject. The inverse pattern is simply the way the agreement works in conjunct forms for this combination of arguments in this language.

The occurrence of the direct and inverse agreement patterns in Plains Cree, in contrast to the neutral pattern in Moose Cree, can be derived from a microparametric difference between the two languages. Following Oxford's (2019b) analysis of direct and inverse forms in Ojibwe, I propose that the probe on Infl in Plains Cree conjunct clauses is specified as [*u*ϕ, *u*Participant] rather than just [*u*ϕ] as in Moose Cree.[14] The derivation of the Plains Cree forms in (30) will then proceed as sketched in (31).

(31) a. DIRECT (1→3)



b. INVERSE (3→1)



As in Moose Cree, Voice agrees with the patient, thus providing the [*u*ϕ, *u*Part] probe on Infl with two equidistant goals: the agent in the specifier of VoiceP and the patient's features on Voice. In Moose Cree, Infl simply agreed with both goals. But in Plains Cree, the increased

[14]The specification of the probe as [*u*ϕ, *u*Part] provides only a rough approximation of the patterning of Infl-agreement in the Plains Cree conjunct. Using the same analytical framework as the current paper, Oxford (2022) argues that Deal's (2015, 2020) "interaction and satisfaction" model of probe specification provides an explanatory account of variation in the patterning of Infl-agreement across the Algonquian family. In that account, the probe on Infl in the Plains Cree conjunct is specified as [*int:* PERS, *sat:* PART,PL]. However, the rough approximation provided by [*u*ϕ, *u*Part] is sufficient for the purposes of the current paper.

specification of the probe means that both goals are not an equally good match: the SAP goal matches Infl's [*u*Part] feature but the third-person goal does not. Infl is thus valued only by the SAP goal—the agent in (31a) and the patient's features on Voice in (31b)—thereby producing the forms in (32), where the central agreement indexes only the SAP argument.

(32) Forms predicted by the derivations in (31)

a. DIRECT (1→3)

wa:pama:ya:hk
wa:pam -a: **-ya:hk**
see -3OBJ **-1PL**
'**we** see her'

b. INVERSE (3→1)

*wa:pamiya: hk
wa:pam -i **-ya:hk**
see -1OBJ **-1PL**
'she sees **us**'

This derivation captures the patterning of central agreement (Infl) in direct and inverse forms, but it does not fully account for the theme sign (Voice). Since Voice consistently agrees with the patient, the prediction is that the theme sign should consistently index the patient, as in the Moose Cree neutral forms. This is correct for the direct form in (32a) but not for the predicted inverse form in (32b), which is ungrammatical: Voice should in fact be realized as the inverse marker *-ikw* rather than the patient agreement marker *-i* '1OBJ'. The appearance of the inverse marker is the most distinctive property of Algonquian inverse forms and must be accounted for: why is the usual patient agreement on Voice replaced by *-ikw* 'INV' in inverse forms?

To answer this question, I adopt the impoverishment analysis of inverse marking proposed for Algonquian in Oxford 2017b, 2019b, echoing Sandalo's (2016) analysis of the Guaicuruan language Kadiwéu. The key proposal is that the inverse marker is in fact the elsewhere realization of Voice, spelled out when Voice lacks phi-features, as formalized in (33).

(33) Exponents of Voice in Plains and Moose Cree

-i	↔	[Voice, 1]	(= 1st-person object theme sign)
-it∼*-is*	↔	[Voice, 2]	(= 2nd-person object theme sign)
-a:	↔	[Voice, 3]	(= 3rd-person object theme sign)
-ikw	↔	[Voice]	(= inverse theme sign)

Under the derivation in (31) above, inverse forms are unique in that Infl and Voice are both valued by the same goal. In the direct form in (31a), Infl is valued by the agent and Voice is valued by the patient, but in the inverse form in (31b)—and all shallow inverse forms—Infl and Voice are both valued only by the patient and thus end up with exactly the same phi-features:

(34) Phi-features on Infl and Voice under the derivations in (31)

a. DIRECT (1→3)

Infl	Voice
[1PL]	[3SG]
(from agent)	(from patient)

b. INVERSE (3→1)

Infl	Voice
[1PL]	[1PL]
(from patient)	(from patient)

Oxford (2017b, 2019b) proposes that configurations of duplicate phi-features on adjacent agreement heads are subject to haplological dissimilation (Nevins 2012). Such a phenomenon is attested in Bantu languages such as Kilega (Kinyalolo 1991) and Dzamba (Henderson 2011),

where it has been dubbed "Kinyalolo's Constraint", which states that "AGR on a lower head is inert iff its features are predictable from AGR on a higher head" (Carstens 2005: 253). An equivalent process can be posited for Algonquian, as expressed by the following rule:

(35) Delete phi-agreement from Voice when phi-agreement on Infl is an exact duplicate.

The result of this rule is that the phi-features on Voice will be deleted in inverse contexts but not in direct contexts, as shown in (36), since exact duplication arises only in inverse contexts.

(36) Deletion of phi-features on Voice when exactly duplicated on Infl

a. DIRECT (1→3)

Infl	Voice
[1PL]	[3SG]
(from agent)	(from patient)

b. INVERSE (3→1)

Infl	Voice
[1PL]	~~[1PL]~~
(from patient)	~~(from patient)~~

The deletion of phi-features from Voice in (36b) makes it impossible to realize Voice as one of the object markers listed in (33), since these exponents are all conditioned by phi-features. The only possible realization is the elsewhere form *-ikw*. This derives the attested SAP inverse form in (37b), where Infl indexes the patient and the typical patient agreement on Voice is replaced by the inverse marker *-ikw*. But under this analysis there is nothing inherently "inverse" about *-ikw*: this is just the default realization of Voice whenever it lacks phi-features, an outcome that arises in SAP inverse contexts due to the impoverishment rule in (35).

(37) SAP direct and inverse forms (repeated from (30))

a. DIRECT (1→3)

wa:pama:ya:hk
wa:pam -a: **-ya:hk**
see -3OBJ **-1PL**
'**we** see her'

b. INVERSE (3→1)

wa:pamikoya:hk
wa:pam -ikw **-ya:hk**
see -INV **-1PL**
'she sees **us**'

In summary, the shallow SAP inverse can be derived as follows. If the probe on Infl is "picky", there will be contexts in which Infl is valued only by the patient and thus exactly duplicates the agreement features on Voice. In such contexts, a dissimilatory impoverishment rule erases the patient's features from Voice, producing an agreement pattern in which Infl indexes the patient and Voice is realized as the elsewhere "inverse" marker. As desired, this inverse alignment pattern arises without syntactic movement of the patient above the agent. The patient is indexed like a canonical subject not because it has moved to the subject position, but simply because its features are especially attractive to the probe on Infl. Rather than being a voice construction, the SAP inverse is just the obligatory outcome of agreement under certain specifications of the probe on Infl and certain configurations of argument features.

7 Deriving the deep third-person inverse

The third-person inverse was argued in Section 4 to be a contrastive voice construction that raises the patient to the structural subject position. The analysis proposed for the SAP inverse thus cannot be extended to the third-person inverse, since the SAP inverse is non-contrastive

and does not raise the patient. The third-person inverse requires a different analysis that nevertheless produces the same morphological pattern as the SAP inverse. This section proposes that the third-person inverse involves a marked Voice head that forces the patient to raise above the agent, as proposed by Aldridge (2012) for the default voice construction in Tagalog. The end result of such a derivation is a morphological pattern that matches the SAP inverse even though its underlying syntax is quite different.

The account of the third-person inverse is presented in two steps. The analysis is first developed for forms in which both arguments are obviative (§7.1). Such forms allow us to abstract away from the proximate-obviative contrast, thereby isolating the properties that can be attributed directly to the inverse voice. After an assessment of the benefits of the proposed analysis and its relation to existing work on voice and alignment (§7.2), the analysis is then extended to third-person forms in which one argument is proximate and the other is obviative (§7.3). The more restricted patterning of the third-person inverse in such contexts is attributed to an independent factor involving the binding properties of proximate nominals.

7.1 Third-person inverse (deep inverse), both arguments obviative

A transitive verb with two third-person arguments inflects in the direct pattern when the agent is more topical and the inverse pattern when the patient is more topical. The role of topicality is clearest when both arguments are obviative, as in the Plains Cree forms in (38). Here the direct-inverse contrast cannot be derived from the phi-features of the arguments, since the phi-features of both arguments are the same. Instead, as argued above (§4), the direct and inverse represent contrastive voice constructions: the direct form in (38a) casts the obviative agent as the structural subject while the inverse form in (38b) does the same for the obviative patient.

(38) Third-person direct and inverse forms (both arguments obviative)

a. DIRECT (3OBV→3OBV)

wa:pama:yit
wa:pam -a: **-yit**
see -3OBJ **-3OBV**
'**OBV$_1$** sees OBV$_2$'

b. INVERSE (3OBV→3OBV)

wa:pamikoyit
wa:pam -ikw **-yit**
see -INV **-3OBV**
'OBV$_2$ sees **OBV$_1$**'
(or '**OBV$_1$** is seen by OBV$_2$')

Since the third-person direct-inverse contrast in (38) is ultimately a voice contrast, I propose that the syntactic locus of the contrast is the Voice head. In particular, I propose that the default Voice head assumed in the preceding sections contrasts with another Voice head, which I label as "Voice$_{ERG}$" for reasons discussed below. The two heads have the same semantics, introducing an agent as their specifier, but they differ in their grammatical features, as shown in (39). The default Voice head bears a [$u\phi$] probe that is valued by the patient, as posited above (§6.2). The Voice$_{ERG}$ head lacks an agreement probe; instead, it assigns inherent Case to its specifier, the agent, and bears an EPP feature that attracts the patient to the edge of VoiceP.[15]

[15]This proposal is prefigured by the analysis of Ojibwe in McGinnis 1995, in which the inverse theme sign is a light verb that assigns inherent Case to its specifier, and the analysis of Passamaquoddy in Bruening 2005, in which Voice can optionally have an EPP feature that attracts the patient to its outer specifier. Neither of these analyses distinguishes the SAP inverse and the third-person inverse, but they are the closest existing antecedents of the analysis proposed here, which essentially combines the proposals of McGinnis and Bruening and restricts

(39) Voice heads responsible for voice contrast in third-person forms

a. DIRECT

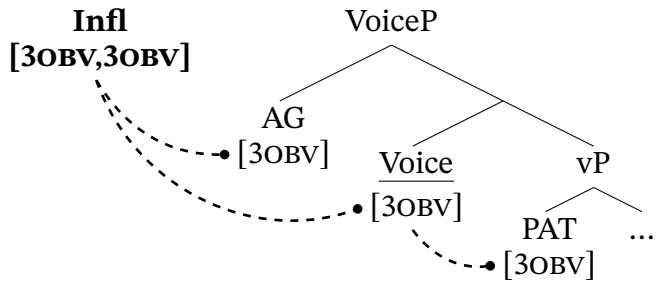
Voice
[$u\phi$]

b. INVERSE

$\text{Voice}_{\text{ERG}}$
[CASE, EPP]

The proposal in (39) will be contextualized in the theoretical literature below, but let us first consider how the derivation of an obviative-on-obviative form will play out with the two distinct Voice heads. If the numeration includes the default Voice head, the derivation will proceed no differently from the forms discussed above, as shown in (40): Voice is valued by the patient and Infl is valued by the features of both arguments.

(40) Derivation of OBV→OBV clause with default Voice (result: third-person direct)

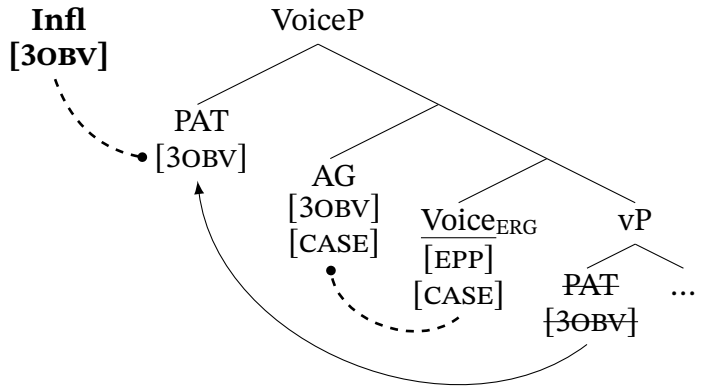


wa:pama:yit
wa:pam -a: **-yit**
see -3OBJ **-3OBV**
'**OBV_1** sees OBV_2'

The result is a form in which the theme sign (Voice) indexes the patient, the central agreement (Infl) is obviative, and the agent is in a higher A-position than the patient. These are exactly the properties of the relevant third-person direct form.

If the numeration instead includes $\text{Voice}_{\text{ERG}}$, the derivation proceeds differently. Since it lacks a probe, $\text{Voice}_{\text{ERG}}$ does not agree with the patient, but it does assign inherent Case to its specifier, the agent, and its EPP property attracts the patient to the edge of VoiceP. Infl will then agree only with the patient, as there are no other accessible goals: the agent is inaccessible due to its inherent Case (cf. Anand & Nevins 2006: 6) and Voice lacks phi-features entirely.

(41) Derivation of OBV→OBV clause with $\text{Voice}_{\text{ERG}}$ (result: third-person inverse)



wa:pamikoyit
wa:pam -ikw **-yit**
see -INV **-3OBV**
'OBV_2 sees **OBV_1**'
(or '**OBV_1** is seen by OBV_2')

them to contexts with two third-person arguments. Regarding the validity of positing abstract Case in a language without morphological case, Sheehan & van der Wal (2016) show that many morphologically caseless languages display the cluster of properties associated with "abstract Case", no matter what the ultimately correct analysis of this phenomenon may be.

The result of this derivation is a form in which the patient is in a higher A-position than the agent, the central agreement (Infl) indexes only the patient, and, since Voice lacks phi-features, the theme sign (Voice) is realized as an elsewhere form—which, as proposed in (33), is the true nature of the inverse theme sign *-ikw*. The derivation in (41) thus produces exactly the properties of a third-person inverse form at both the syntactic level (raising of patient) and the morphological level (inverse agreement pattern).[16]

7.2 Assessing the account of the third-person inverse

Before proceeding to extend the analysis of the third-person inverse to forms in which one argument is proximate and the other is obviative, this section steps back to consider the benefits of the proposed account and its relation to existing theoretical work on voice and alignment.

By attributing the contrast between third-person direct and inverse forms to the inclusion of either default Voice or $\text{Voice}_{\text{ERG}}$ in the numeration, the proposed analysis captures the status of the third-person inverse as an optional voice construction conditioned by "speaker-determined assignment of relative topicality" (Wolvengrey 2011: 176): when the speaker wishes to portray the patient as more topical than the agent, they can exercise the option to use $\text{Voice}_{\text{ERG}}$ rather than default Voice, producing a derivation in which agreement with the agent is suppressed by the assignment of inherent case and the patient raises to a more prominent position.

The proposed analysis also explains why the shallow SAP inverse and the deep third-person inverse show the same agreement pattern despite having distinct syntactic derivations. Descriptively, the inverse agreement pattern is defined by a pair of morphological outcomes: (a) the central agreement (Infl) indexes only the patient; (b) the theme sign (Voice), which normally indexes the patient, is realized as the elsewhere form *-ikw*, traditionally described as an inverse marker. Under the proposed analysis, this pair of outcomes arises in both SAP inverse contexts and third-person inverse contexts, but for different reasons:

(42) Derivation of inverse agreement in shallow SAP inverse forms
   a. Infl indexes only the patient because the patient's features on Voice are a better match for the probe on Infl than the agent in the specifier of VoiceP.
   b. Voice is realized as the elsewhere form *-ikw* because an impoverishment rule deletes its agreement features when Infl's features are an exact duplicate.

(43) Derivation of inverse agreement in deep third-person inverse forms
   a. Infl indexes only the patient because the patient has raised to the edge of VoiceP and the agent is inaccessible due to its receipt of inherent Case.
   b. Voice is realized as the elsewhere form *-ikw* because $\text{Voice}_{\text{ERG}}$ lacks an agreement probe and thus has no phi-features at any stage of the derivation.

Since the morphological outcome is the same regardless of whether the derivation proceeds as in (42) or (43), we have an explanation for why the Algonquian inverse presents as a uni-

[16] It is possible that the derivation in (41) continues with movement of the patient to the specifier of InflP as a result of agreement with Infl. For the purposes of the current paper, however, all that matters is that the patient ends up in a higher position than the agent and is indexed by Infl. The structure in (41) is sufficient to capture these facts.

fied morphological phenomenon despite the significant syntactic and pragmatic differences between SAP inverse forms and third-person inverse forms.

The analysis of Algonquian third-person direct and inverse forms in (40) and (41) has parallels in the theoretical literature. The analysis of the direct form in (40), in which Voice is valued by the patient, is equivalent to the standard analysis of accusative languages such as English, in which Voice (or transitive v) assigns accusative Case to the patient (Chomsky 2000: 123). The analysis of the inverse form in (41), in which Voice assigns inherent Case to its specifier, matches a common analysis of ergative languages (Woolford 1997, 2006, Legate 2002, 2008, Aldridge 2004, 2012), picking up on existing observations that the Algonquian inverse can be described as an ergative construction (Siewierska 1998, Déchaine 1999: 50, Agnès 2014). In particular, the proposal that $\text{Voice}_{\text{ERG}}$ not only assigns inherent Case to its specifier but also bears an EPP feature that attracts the patient is identical to the analysis of Tagalog in Aldridge 2012. The only innovation in the current study is the proposal that English-type and Tagalog-type Voice heads coexist in the same language, with the Tagalog-type head as a marked option.

Even the latter proposal is not truly an innovation, however. Many Mayan languages have a special "Agent Focus" verb form that, as Aissen (1999) points out, is reminiscent of the Algonquian inverse. In particular, Agent Focus forms are fully transitive but show antipassive-like morphology and exceptionally allow the agent to raise above the patient, just as Algonquian third-person inverse forms are fully transitive but show passive-like morphology and exceptionally allow the patient to raise above the agent. Coon et al. (2014) propose that Agent Focus clauses in Q'anjob'al involve a "second, marked variant of Voice" (p. 217) that assigns structural Case to the patient, in contrast to the default version of Voice that assigns inherent Case to the agent. Ergative and accusative Voice heads thus coexist within the same language, exactly as proposed here for Algonquian. The only relevant difference is that in Mayan, the ergative Voice head is the default and the accusative Voice head is marked, whereas in Algonquian it is the other way around, as sketched in Table 3.

	Default transitive	Marked transitive
Cree	AG Voice PAT AGR	AG Voice PAT CASE
Q'anjob'al	AG Voice PAT CASE	AG Voice PAT CASE

Table 3: Mirror-image morphosyntax in Cree and Q'anjob'al

In summary, an analysis of the Algonquian third-person inverse as a voice construction triggered by a marked Voice head accounts for its morphological, syntactic, and pragmatic properties and also reveals close parallels in theoretical work on ergative languages in the Austronesian and Mayan families, where the system of voice and alignment is, in crucial respects, the mirror image of what is proposed here for Algonquian.[17]

[17]For a more descriptive perspective on this mirror-image patterning, see also the comparisons of Algonquian and Philippine alignment in Haude & Zúñiga 2016 and Oxford 2018.

7.3 Third-person inverse (deep inverse), proximate and obviative

When both arguments are obviative, a voice analysis of the third-person inverse is straightforward: there is simply a free choice between the default (direct) voice and the inverse voice. But in the more common case that one argument is proximate and the other is obviative, a complication arises: the use of the two voice constructions is constrained by the proximate-obviative contrast. When proximate acts on obviative, only the default (direct) voice is possible, as in (44a). And when obviative acts on proximate, only the inverse voice is possible, as in (44b).

(44) Third-person direct and inverse forms with proximate and obviative (Cree conjunct)

a. DIRECT (3PX→3OBV)

wa:pama:t
wa:pam -a: **-t**
see -3OBJ **-3PX.SG**
'**PX.SG** sees OBV'

b. INVERSE (3OBV→3PX)

wa:pamikot
wa:pam -ikw **-t**
see -INV **-3PX.SG**
'OBV sees **PX.SG**'
(or '**PX.SG** is seen by OBV')

For clarity, the full empirical picture is laid out in Table 4. The default voice construction is available only when proximate acts on obviative, not when obviative acts on proximate, and vice versa for the inverse voice construction. What is the explanation for these restrictions?

Direct (default Voice)			Inverse ($\text{Voice}_{\text{ERG}}$)			
AG.PX	Voice	PAT.OBV	PAT.PX	[AG.OBV	$\text{Voice}_{\text{ERG}}$	~~PAT.PX~~]
*AG.OBV	Voice	PAT.PX	*PAT.OBV	[AG.PX	$\text{Voice}_{\text{ERG}}$	~~PAT.OBV~~]

Table 4: Distribution of voice constructions when arguments are PX and OBV

From a functional perspective, the restrictions in Table 4 reflect the fact that the direct-inverse contrast and the proximate-obviative contrast are both conditioned by topicality. The two contrasts are, in principle, independent, as shown by the existence of the direct-inverse contrast even when both arguments are obviative (§7.1), a point that has been made forcefully by Appelbaum (2019). Nevertheless, when the proximate-obviative contrast and the direct-inverse contrast are both present in the same clause, they must align: since a proximate nominal is more topical than an obviative nominal, a form with a proximate agent is compatible only with the direct voice, which highlights a topical agent, and a form with a proximate patient is compatible only with the inverse voice, which highlights a topical patient (see Table 1).

It is unclear how this functional rationale could be parlayed into a formal analysis, but the exercise is unnecessary, as there is also a structural explanation for the restrictions in Table 4. Note that in the two licit configurations in the first row of the table—direct with proximate acting on obviative and inverse with obviative acting on proximate—the proximate c-commands the obviative. Meanwhile, in the two illicit configurations in the second row of the table—direct with obviative acting on proximate and inverse with proximate acting on obviative—the

obviative c-commands the proximate. So perhaps the restrictions in Table 4 reflect a constraint against configurations in which a proximate is c-commanded by an obviative.

There is evidence that exactly such a constraint exists. The crucial data involves clauses in which a proximate is c-commanded by a structurally higher nominal. In such cases, the proximate is obligatorily bound by the nominal that c-commands it, whereas an obviative in the same position is obligatorily free. This effect is illustrated by the Innu data in (45) (Clarke 1982) (cf. Grafstein 1984: 31 for parallel data in Algonquin). In both sentences, the agent is proximate and the patient is a possessed inanimate noun. When the possessor is proximate, as in (45a), it must corefer with the subject. When the possessor is obviative, as in (45b), it is disjoint from the subject. (In these examples, boldface and underlining indicate proximate and obviative, respectively, not central agreement and theme signs as in the rest of the paper.)

(45) Proximate subject binds proximate object possessor in Innu (Clarke 1982: 31)

a. mishkam umashinaikan

mishkam	**-w**	**u-** mashinaikan	**-Ø**	-Ø
find	**-3PX.SG**	**3-** book	**-3PX.SG**	-INAN.SG

'**he.PX**$_i$ finds **his.PX**$_i$ book'

b. mishkam umashinaikannu

mishkam	**-w**	u- mashinaikan	-nu	-Ø
find	**-3PX.SG**	3- book	-3OBV	-INAN.SG

'**he.PX**$_i$ finds his.OBV$_j$ book'

To account for this coreference effect in Plains Cree, Dahlstrom (1986b: 58) states that "proximate pronominal forms are obligatorily coreferent to c-commanding proximate antecedents". I suggest that this constraint could be made slightly more general, as in (46):

(46) *Proximate Binding Condition:* A proximate third-person nominal obligatorily corefers with a third-person nominal that c-commands it from an A-position.

This reformulation enables a structural account of the restrictions in Table 4: the configurations in which an obviative c-commands a proximate are ungrammatical because, by the principle in (46), the proximate would have to be bound by the obviative—a requirement that is incompatible with the fact that the proximate and the obviative are distinct arguments and thus must have disjoint reference (Valentine 2001: 273). The only licit transitive configurations are therefore those in which the proximate c-commands the obviative, since these are the only configurations in which the proximate is spared from obligatory coreference. (Compare Bruening's (2005:21) observation that, in Passamaquoddy, "proximate NPs always c-command obviative NPs.")

In summary, the fact that PX→OBV forms can only use the default voice and OBV→PX forms can only use the inverse voice follows from the binding properties of proximate nominals. Since a proximate is obligatorily bound by a c-commanding third person, a proximate can only have independent reference if it is not so c-commanded. Consequently, when a proximate is present, the derivation will only converge if the speaker uses a voice construction that places the proximate in subject position: the default voice when the proximate is the agent and the inverse voice when the proximate is the patient. We thus have a principled explanation for the lack of a free choice between the direct and inverse voices in forms with a proximate argument: the

Proximate Binding Condition in (46) neutralizes the voice contrast in favor of the default voice in PX→OBV forms and the inverse voice in OBV→PX forms.

The neutralization of the third-person direct-inverse contrast in these contexts does not undermine its analysis as a voice contrast. In fact, similar neutralization effects can be identified for the active-passive voice contrast in English. For example, the passive *Every man$_i$ is loved by his$_i$ mother* does not have a simple active paraphrase (**His$_i$ mother loves every man$_i$*), and the active *Every man$_i$ loves his$_i$ mother* does not have a simple passive paraphrase (**His$_i$ mother is loved by every man$_i$*). Although speakers ordinarily have free choice between the active and passive voices, the voice contrast is neutralized in contexts that require the particular binding possibilities afforded by either the active or the passive. The situation in Algonquian is comparable: there is, in principle, a free choice between the third-person direct and third-person inverse, as shown by forms with two obviative arguments, but because of the Proximate Binding Condition, third-person forms with a proximate argument require the particular binding configuration afforded by either the direct voice or the inverse voice.

8 Deriving the distribution of the two inverses

In the account proposed above, inverse morphology results from any derivation that concludes with Infl bearing only the phi-features of the patient and Voice bearing no phi-features. The existence of two distinct derivational paths to this outcome, only one of which involves movement, accounts for the different properties of the deep third-person inverse and the shallow SAP inverse while capturing the fact that both inverses share the same morphological pattern. Although this is the desired result, the analysis is not yet complete, as one important point remains to be explained: the distribution of the two inverses. Table 5, which summarizes the distribution of the deep and shallow inverses in Moose Cree and Plains Cree, makes it clear that the distribution of the two inverses is systematic: the shallow inverse is limited to a subset of 3→SAP forms and the deep inverse is limited to 3→3 forms.[18] Why should the distribution of the two inverses be restricted in exactly this way? In particular, if the deep inverse is a voice contrast, why is the contrast available only when two third persons interact?

This section argues that the distribution of the inverse is restricted by a licensing condition on SAP arguments: SAP features must be licensed by Agree (§8.1). The inverse will then be ruled out whenever its derivation results in SAP features not entering an Agree relation. This will be shown to explain why the shallow inverse is incompatible with SAP subjects (§8.2) and why the deep inverse is incompatible with SAP arguments in general (§8.3). In both cases, the inverse is illicit because it disrupts the licensing of SAP features.

[18] Interactions between two SAPs (e.g. 'I see you') are sometimes claimed to show a direct-inverse pattern (e.g. Wolfart 1973: 24 for Cree), but see Hockett 1992 and Macaulay 2009 for arguments that this interpretation is incorrect. Genuine inverse forms in SAP→SAP contexts have, however, developed in some Ojibwe varieties. These innovative SAP→SAP inverse forms in fact show a special variant of the inverse marker that ordinarily appears with impersonal agents: the inverse form that means 'we see you' is homophonous with the form that means 'one sees you' or 'you are seen' (McGinnis 2008: 180). As McGinnis points out, "[t]he use of indefinite forms with a first person plural meaning is also seen in other languages," such as French. This observation suggests that the correct analysis of the innovative SAP→SAP inverse may differ from the analysis of shallow 3→SAP inverse forms proposed in this paper.

	Independent	Moose Cree conjunct	Plains Cree conjunct
SAP→SAP	no INV	no INV	no INV
SAP→3	no INV	no INV	no INV
3→SAP	**shallow INV**	no INV	**some shallow INV**
3PX→3OBV	no INV	no INV	no INV
3OBV→3PX	**deep INV**	**deep INV**	**deep INV**
3OBV→3OBV	**optional deep INV**	**optional deep INV**	**optional deep INV**

Table 5: Distribution of inverse alignment in Plains and Moose Cree

8.1 A licensing constraint on SAPs

I am aware of no evidence that third-person arguments in Algonquian languages are subject to any licensing requirements beyond the Theta Criterion: to my knowledge, any argument position of any verb in any syntactic context can be occupied by a third person. The distribution of SAP arguments, however, is more restricted. In many Algonquian languages, there are two positions from which SAPs are banned. First, an SAP cannot be the theme of a ditransitive verb (Goddard 1969: 37; Rhodes 1990b: 409; Lochbihler 2012: 118). An example of a grammatical Ojibwe ditransitive is given in (47), with an SAP agent, an SAP recipient, and a third-person theme.[19] Ditransitive forms with SAP themes do not exist.

(47) piːtoːnakok
piːt -aw -in **-akok**
bring -APPL -2OBJ **-1SG:2PL**
'**I** bring it/her for **you.PL**'

Second, an SAP cannot be the patient of what I will call a "pseudo-transitive" verb: a class of verbs that take two arguments but show intransitive morphology, known as "AI+O" verbs by specialists (Goddard 1969: 37). The morphological differences between pseudo-transitives and full transitives are illustrated by the Ojibwe conjunct forms in (48). In the full transitive in (48a), Voice indexes the patient (*-aː* '3OBJ') and Infl indexes both arguments (*-ak* '1SG:3'). In the pseudo-transitive in (48b), Voice is absent and Infl indexes only the agent (*-yaːn* '1SG'). The pseudo-transitive form in (48b) has a third-person patient, and this is the only possibility: the patient of a pseudo-transitive cannot be an SAP (Goddard 1969: 37; Rhodes 1990b: 408).

(48) a. waːpamak
waːpam -aː **-ak**
see -3OBJ **-1SG:3**
'**I** see **her**' (transitive)

b. ataːweːyaːn
ataːweː **-yaːn**
buy **-1SG**
'**I** buy it/her' (pseudo-transitive)

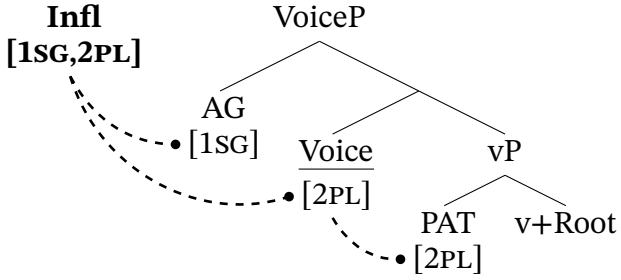
[19]This example was constructed by the author by inflecting the stem *piːtaw-* 'bring for someone' (Nichols 1980: 249) with the 1SG→2PL conjunct inflection *-inakok* (ibid: 329) and applying the relevant morphophonemics (ibid: 155–156).

The ban on ditransitive SAP themes and pseudo-transitive SAP patients can be regarded as a Person-Case Constraint effect, as observed for Ojibwe ditransitives by Lochbihler (2012: 118), and follows straightforwardly from accounts that tie such effects to the licensing of SAP features. In particular, I assume the Person Licensing Condition (PLC) of Béjar & Rezac (2003: 53) (cf. Anagnostopoulou 2003, Preminger 2011, Lochbihler 2012, Drummond & O'Hagan 2020):

(49) *Person Licensing Condition:* An interpretable 1st/2nd person feature must be licensed by entering into an Agree relation with a functional category.

To establish a baseline for the operation of the PLC in Algonquian, let us first consider how the PLC is satisfied in ordinary transitive forms, which allow either or both arguments to be SAPs. It was proposed in Section 6.2 that transitives have the default derivation in (50), illustrated here for an Ojibwe 1SG→2PL form (Nichols 1980: 329). In this derivation, Voice agrees with the patient and Infl agrees with both the agent and the patient. Since the features of both the agent and the patient enter into Agree relations, SAP arguments are licit in both positions.

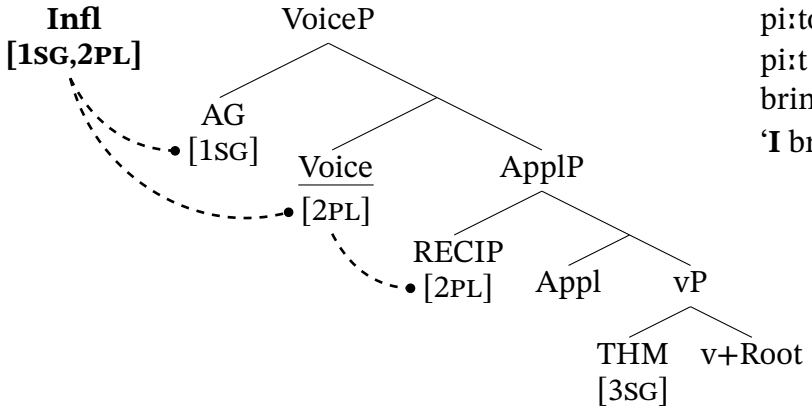
(50)



wa:paminakok
wa:pam -in **-akok**
see -2OBJ **-1SG:2PL**
'**I** see **you.PL**'

We may now turn to the two positions that ban SAP arguments: ditransitive themes and pseudo-transitive patients. For ditransitives, I assume the structure in (51), in which an Appl head introduces the recipient (Quinn 2006, Lochbihler 2012). Since ditransitives show the same agreement patterns as monotransitives, the Agree relations can be assumed to be identical to those in (50): Voice agrees with the closest c-commanded goal—in this case, the recipient—and Infl agrees with both the agent and the equidistant features of the recipient on Voice.

(51)

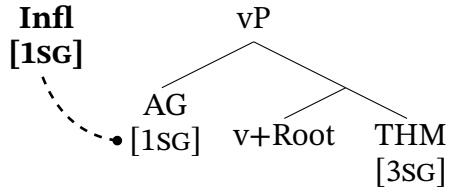


pi:to:nakok
pi:t -aw -in **-akok**
bring -APPL -2OBJ **-1SG:2PL**
'**I** bring it/her for **you.PL**'

The derivation in (51) captures the agreement pattern in the example, in which Voice indexes the recipient (*-in* '2OBJ') and Infl indexes both the agent and the recipient (*-akok* '1SG:2PL'), and it also explains why the theme argument of a ditransitive cannot be an SAP: since the theme position is untouched by agreement, an SAP in this position will not be licensed.

A similar situation holds for pseudo-transitives, in which the patient cannot be an SAP. As shown in (48b) above, the theme sign (Voice) is completely absent from pseudo-transitive forms. Building on this and other facts, such as the absence of a direct-inverse contrast, Tollan & Oxford (2018) propose that pseudo-transitives lack a VoiceP layer and instead introduce the agent (or "doer", after Massam 2009) within vP. The absence of Voice leaves the clause with only a single agreement probe, on Infl, for which the closest goal will always be the agent:

(52)



ataːweːyaːn
ataːweː **-yaːn**
buy **-1SG**
'**I** buy it/her'

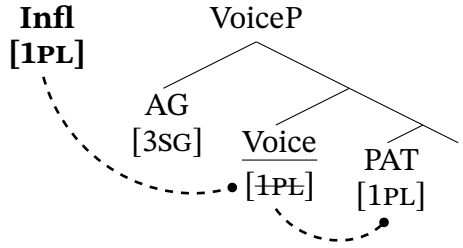
The derivation in (52) captures the agreement pattern in the example, in which Infl indexes the agent (*-yaːn* '1SG') and the patient is unindexed, and it also explains why the patient argument cannot be an SAP: like the theme position of a ditransitive, the patient position of a pseudo-transitive is untouched by agreement and thus cannot license an SAP.

In summary, there is clear evidence that the PLC applies in Algonquian languages: SAP arguments are licensed only if they enter an Agree relation with a functional head. If an argument position is untouched by agreement, an SAP cannot appear in that position. This conclusion points the way to an account of the restrictions on the distribution of inverse alignment: inverse forms are possible only in contexts where their derivation does not disrupt the licensing of SAP arguments, as shown below for the shallow inverse (§8.2) and the deep inverse (§8.3).

8.2 Distribution of the shallow inverse

The shallow inverse occurs in a subset of 3→SAP forms. It was proposed in Section 6.3 that the shallow inverse arises whenever the patient's features on Voice are a better match for Infl than the agent's features. The precise set of 3→SAP forms in which this is the case depends on the specification of the probe on Infl. When the relevant configuration obtains, Infl is valued only by the patient's features, an outcome that leads to the realization of inverse morphology. This derivation is shown for a Plains Cree shallow inverse form in (53) (repeated from (31)).

(53)



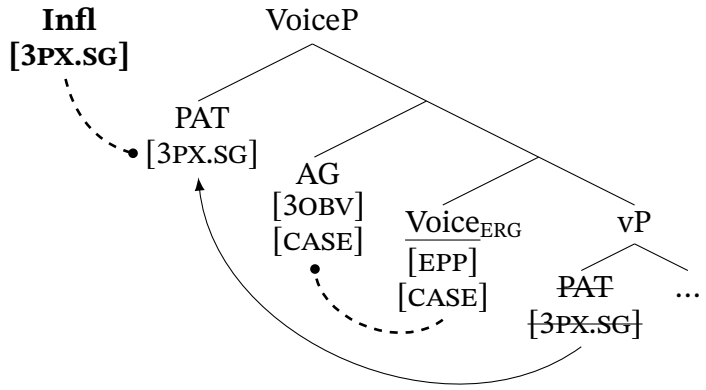
waːpamikoyaːhk
waːpam -ikw **-yaːhk**
see -INV **-1PL**
'she sees **us**'

Why is the shallow inverse possible in 3→SAP contexts but not in SAP→3 or SAP→SAP contexts? The answer is evident from (53): in derivation of a shallow inverse form, the agent position is untouched by agreement, as both Voice and Infl are valued only by the patient. Since the agent is not agreed with, the PLC rules out an SAP in the agent position. The shallow inverse is thus compatible only with forms in which the agent is a third person.

8.3 Distribution of the deep inverse

The deep inverse was analyzed in Section 7 as a voice construction that casts the patient as the structural subject. As shown for a Cree deep inverse form in (54) (cf. (41)), the use of $\text{Voice}_{\text{ERG}}$ produces a derivation in which the agent receives inherent Case and the patient raises above the agent. On the assumption that inherent Case renders the agent inaccessible to agreement (cf. Anand & Nevins 2006: 6), the only accessible goal for the probe on Infl is the patient. The result is a form in which the patient c-commands the agent and is indexed by Infl.

(54)



wa:pamikot
wa:pam -ikw **-t**
see -INV **-3PX.SG**
'OBV sees **PX.SG**'
(or '**PX.SG** is seen by OBV')

This analysis captures the morphology, syntax, and pragmatics of the deep third-person inverse, but it also raises a question: if the inverse voice reflects the free choice to include $\text{Voice}_{\text{ERG}}$ rather than default Voice in the numeration, why is the use of the inverse voice restricted to interactions between two third persons? Why don't speakers have a choice between contrastive default and inverse voices in SAP→SAP, SAP→3, and 3→SAP configurations as well?

From a functional perspective, the confinement of the voice contrast to third-person configurations reflects the fact that voice contrasts are conditioned by the relative topicality of the agent and patient. Since the topicality of third persons is much more variable than that of SAPs, which are inherently topical (Givón 1994: 22), the functional load of a voice contrast is greater in third-person configurations, and so it is unsurprising that diachronic processes of grammaticalization and reanalysis might lead to the emergence of voice contrasts in third-person configurations in particular. Indeed, the first step in Givón's (1994:30) life cycle of inverse constructions involves what he calls a "pragmatic inverse", which is inherently restricted to third-person configurations (Givón 1994: 22). On typological grounds, then, there is nothing unusual about a system in which a voice contrast is limited to third-person forms.

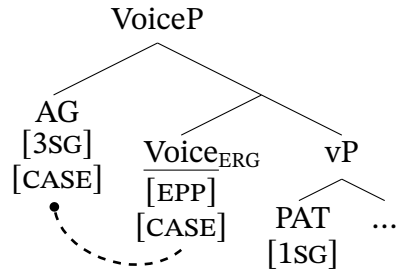
From a synchronic perspective, however, we still need to explain what rules out a derivation in which $\text{Voice}_{\text{ERG}}$ co-occurs with SAP arguments. For SAP→SAP and SAP→3 forms, the structure in (54) above provides an immediate explanation. The key is that in the inverse voice, the agent does not enter into an Agree relation, since the $\text{Voice}_{\text{ERG}}$ head lacks an agreement probe and the probe on Infl is always valued by the patient. Given the PLC, the absence of agreement with the agent in the inverse voice means that an SAP agent cannot be licensed. This rules out the use of the inverse voice in SAP→SAP and SAP→3 configurations.

The preceding explanation does not, however, rule out the use of inverse voice in 3→SAP forms, since the PLC is not relevant for the third-person agent and the raising of the SAP patient triggered by $\text{Voice}_{\text{ERG}}$ should allow the patient to be licensed through agreement with Infl.

Nevertheless, there must be something that prevents such a derivation from converging, since it was argued above that the inverse voice is not in fact available here: 3→SAP inverse forms are shallow, not deep (§4). But why? What prevents the use of $\text{Voice}_{\text{ERG}}$ in 3→SAP forms?

To answer this question, I make two tentative proposals, which must await full justification in future research. First, I propose that the EPP property on $\text{Voice}_{\text{ERG}}$ is more specifically a requirement for $\text{Voice}_{\text{ERG}}$ to attract a DP to its specifier. The association of the EPP with D-features is commonly assumed in the literature (e.g., Chomsky 1995; Davies & Dubinsky 2001; Doner 2019: 31). Second, I propose that SAP arguments lack a DP layer and are instead a smaller constituent such as ϕP or NumP, following Bartos (1999) for Hungarian, van Gelderen (2011: 74) for English, and Bjorkman et al. (2019: 587) for Heiltsuk. The leading intuition here is that the SAP features in ϕP or NumP are sufficient to fix the reference of an SAP argument, thus rendering the deictic features on D superfluous (Kratzer 2009: 221–222; Mavrogiorgos 2010: 54). Under these assumptions, an attempt to use the inverse voice ($\text{Voice}_{\text{ERG}}$) in a 3→SAP configuration would lead to a failed derivation:

(55)



In the derivation in (55), $\text{Voice}_{\text{ERG}}$ assigns inherent Case to the agent, as always, but it cannot satisfy its EPP property by raising the patient, since the EPP requires movement of a DP but the SAP patient is not a DP. Consequently, since the SAP patient remains below the edge of the VoiceP phase, it cannot enter an Agree relation with Infl, under the assumption that the probe on Infl is subject to the Phase Impenetrability Condition (Chomsky 2000: 108) or, alternatively, that VoiceP is the horizon for Infl in the framework of Keine (2020). The derivation in (55) will then crash for two reasons: the EPP property of Voice is unsatisfied and the SAP patient is unlicensed due to its failure to enter an Agree relation. This accounts for the unavailability of inverse voice in 3→SAP configurations: the relevant derivation cannot converge.

This admittedly tentative account of 3→SAP configurations completes the explanation for the restricted distribution of the inverse voice. The proposal, in summary, is that $\text{Voice}_{\text{ERG}}$ disrupts the usual mechanisms for licensing SAP arguments and is therefore compatible only with configurations in which both arguments are third person. The result is a voice contrast that can only be used in third-person forms, as attested.

9 Conclusion

The functional-typological literature distinguishes two kinds of inverse constructions: inverse voice, in which the patient is the structural subject, and inverse alignment, in which the patient is agreed with like a canonical subject. In this literature, Algonquian languages are taken as the prototypical example of a system in which the two kinds of inverses coexist: the third-person inverse is an inverse voice construction while the SAP inverse involves inverse alignment in the

absence of inverse voice. This paper presented some additional data to support the plausibility of this conclusion and then sought to reconcile it with existing formal work on agreement and voice. The goal was to develop an analysis that accounts for the distinct properties of the two inverses while capturing the fact that they share the same morphological pattern.

The paper proposed that inverse morphology arises whenever Infl is valued only by the patient and Voice fails to show patient agreement. In the shallow SAP inverse, this outcome obtains when Infl piggybacks on the patient agreement on Voice. In the deep third-person inverse, the same outcome obtains because a special "ergative" version of the Voice head triggers movement of the patient to the edge of the VoiceP phase. The morphological pattern is the same either way, but its syntactic and pragmatic correlates differ. Restrictions on the distribution of the two inverse constructions were argued to follow from person licensing: an inverse construction is available only when its derivation does not disrupt the licensing of SAP arguments. This constraint prevents the shallow inverse from appearing with SAP subjects and restricts the deep inverse to forms in which both arguments are third person.

The existence of two syntactic paths to inverse morphology helps to explain why the syntactic status of the Algonquian inverse has been enduringly controversial: it is possible that, even within a single language, there may be two different kinds of inverse constructions, and if this is the case, then any attempt to paint all of a language's inverse forms with the same brush will not succeed. Future empirical and theoretical work should take into account the possibility that the third-person inverse and the SAP inverse may be syntactically distinct. Syntactic tests should be applied separately to the two kinds of inverses, and a conclusion that holds for one should not automatically be assumed to hold for the other. Much descriptive work along these lines remains to be done, so it is not yet possible to say with certainty just how broadly this "tale of two inverses" is applicable across the Algonquian family, but it is hoped that the proposals in this paper will bring some additional clarity to the task.

In addition to connecting formal research on inverse systems to the functional-typological findings of Givón (1994) and Gildea (1994), the paper identifies connections between the inverse system in Algonquian, the ergative alignment pattern in Austronesian (Aldridge 2012), and the Agent Focus construction in Mayan (Coon et al. 2014). At a coarse level, the patterning of voice and alignment in Algonquian languages such as Cree can be regarded as the mirror image of Mayan languages such as Q'anjob'al: in Cree, the default Voice head is accusative and the marked Voice head is ergative, while in Q'anjob'al, as analyzed by Coon et al. (2014), the default Voice head is ergative and the marked Voice head is accusative. The potential for further work along these lines is suggested by Aissen's (1999: 456) observation that in the Mayan language Tsotsil, the Agent Focus construction is restricted to clauses with two third-person arguments, just like the deep inverse in Algonquian. The identification of these parallels illustrates the clarity that the distinction between inverse voice and inverse alignment can bring to formal work on voice and agreement.

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