

**DIRECT,
INVERSE,
AND
NEUTRAL**

REFINING THE DESCRIPTION OF
ALGONQUIAN TRANSITIVE VERB FORMS

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DIRECT? INVERSE?

Few terms more fundamental to Algonquian linguistics than **direct** and **inverse**

But what exactly do these terms denote?

1s→3	ni- wa:pam	-a:	3→1s	ni- wa:pam	-ikw
DIR	1- see.TA	-DIR	INV	1- see.TA	-INV
	‘I see her’			‘she sees me’	

- (✓) Particular morphemes?
- ✓ Agreement patterns? →
- ✗ Argument configurations?

Not only
direct and
inverse, but
also **neutral**

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BACKGROUND

AGREEMENT SLOTS

MOOSE CREE
(ELLIS 1971)

	INDEPENDENT				CONJUNCT		
3→1s	<i>ni-</i>	<i>wa:pam</i>	<i>-ikw</i>	<i>-w</i>	<i>wa:pam</i>	<i>-i</i>	<i>-t</i>
	1-	see.TA	-INV	-1S	see.TA	-1OBJ	-3
3→2s	<i>ki-</i>	<i>wa:pam</i>	<i>-ikw</i>	<i>-w</i>	<i>wa:pam</i>	<i>-is</i>	<i>-k</i>
	2-	see.TA	-INV	-2S	see.TA	-2OBJ	-3
3→1P	<i>ni-</i>	<i>wa:pam</i>	<i>-ikw</i>	<i>-ina:n</i>	<i>wa:pam</i>	<i>-i</i>	<i>-amiht</i>
	1-	see.TA	-INV	-1P	see.TA	-1OBJ	-3:1P
3→2P	<i>ki-</i>	<i>wa:pam</i>	<i>-ikw</i>	<i>-wa:w</i>	<i>wa:pam</i>	<i>-it</i>	<i>-a:kw</i>
	2-	see.TA	-INV	-2P	see.TA	-2OBJ	-3:2P
	CEN		TS	CEN		TS	CEN

Theme sign (Bloomfield 1946)

Central agreement (Goddard 1969)

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**AGREEMENT
PATTERNS**

DIRECT AND INVERSE FORMS

CREE (ELLIS 1971,
WOLFART 1973)

1s→3 DIR	ni- 1- 'I see her'	wa:pam see.TA	-a: -3OBJ	-w -1S		3→1s INV	ni- 1- 'she sees me'	wa:pam see.TA	-ikw -INV	-w -1S
2s→3 DIR	ki- 2- 'you see her'	wa:pam see.TA	-a: -3OBJ	-w -2S		3→2s INV	ki- 2- 'she sees you'	wa:pam see.TA	-ikw -INV	-w -2S

- Agreement **symmetrical** and **hierarchy-driven**:
- **Central agreement** indexes higher-ranked person
 - Opposite forms distinguished only by **theme sign**

When agreement works this way, DIRECT & INVERSE are good labels for the two contrasting patterns.

DIRECT AND INVERSE FORMS

CREE (ELLIS 1971,
WOLFART 1973)

1s→3
DIR ni- wa:pam -a: -w
1- see.TA -3OBJ -1S
'I see her'

3→1s
INV ni- wa:pam -ikw -w
1- see.TA -INV -1S
'she sees me'

2s→3
DIR ki- wa:pam -a: -w
2- see.TA -3OBJ -2S
'you see her'

3→2s
INV ki- wa:pam -ikw -w
2- see.TA -INV -2S
'she sees you'

DIRECT PATTERN:

Central agreement
indexes **agent only**

Theme sign indexes
patient

INVERSE PATTERN:

Central agreement
indexes **patient only**

Theme sign is **special
marker** (PA *-ekw)

opposite forms differ **only in theme sign**

WHAT ABOUT THE CONJUNCT?

CREE (ELLIS 1971,
WOLFART 1973)

1s→3
~~DIR~~
wa:pam -∅ -ak
see.TA -3OBJ -1s:3
'I see her'

3→1s
~~INV~~
wa:pam -i -t
see.TA -1OBJ -3
'she sees me'

2s→3
~~DIR~~
wa:pam -∅ -at
see.TA -3OBJ -2s:3
'you see her'

3→2s
~~INV~~
wa:pam -is -k
see.TA -2OBJ -3
'she sees you'

DIRECT PATTERN:

~~Central agreement indexes agent only~~

Theme sign indexes patient ✓

INVERSE PATTERN:

~~Central agreement indexes patient only~~

~~Theme sign is special marker (PA *-ekw)~~

~~opposite forms differ only in theme sign~~

WHAT ABOUT THE CONJUNCT?

CREE (ELLIS 1971,
WOLFART 1973)

1s→3 DIR	wa:pam -∅ -ak see.TA -3OBJ -1S:3 'I see her'
------------------------	--

3→1s INV	wa:pam -i -t see.TA -1OBJ -3 'she sees me'
------------------------	--

2s→3 DIR	wa:pam -∅ -at see.TA -3OBJ -2S:3 'you see her'
------------------------	--

3→2s INV	wa:pam -is -k see.TA -2OBJ -3 'she sees you'
------------------------	--

- The properties that motivate the terms “direct” and “inverse” are **absent** from these forms.
- We gain **no insight** by labelling these forms as direct and inverse.
- Worse, we obscure the fact that these forms have a **distinct morphological structure**.

A RELEVANT COMMENT

‘In true “direct/inverse” systems **there is a nonzero Inverse morpheme in $3 \rightarrow \{1, 2\}$ combinations** which helps differentiate them from direct $\{1, 2\} \rightarrow 3$ counterparts. In some recent papers one notices extensions in the use of these terms, as “inverse” is applied to forms **lacking an Inverse morpheme**. Such **mission creep** has destroyed the usefulness of many once valuable linguistic terms...and should be resisted in this case.’

(Heath 1998:83, emphasis mine)

ANOTHER
ILLUSTRATION

PLAINS CREE

1P→3 DIR	wa:pam -a: -ya:hk see.TA -3OBJ -1P 'we see her'	3→1P INV	wa:pam -iko -ya:hk see.TA -INV -1P 'she sees us'
---------------------------	---	---------------------------	--

MOOSE CREE

1P→3 DIR	wa:pam -∅ -akiht see.TA -3OBJ -1P:3 'we see her'	3→1P INV	wa:pam -i -amiht see.TA -1OBJ -3:1P 'she sees us'
--------------------------------------	--	--------------------------------------	---

Describing the Moose Cree forms as DIR and INV implies the presence of morphological patterns that **aren't actually there**.

The Moose Cree forms show an agreement pattern that is **neither direct nor inverse**.


DESCRIBING THE THIRD PATTERN

MOOSE CREE

1P→3	wa:pam	-∅	-akiht	3→1P	wa:pam	-i	-amiht
NEUT	see.TA	-3OBJ	-1P:3	NEUT	see.TA	-1OBJ	-3:1P
	'we see her'				'she sees us'		

- Opposite forms are **not** mirror images.
- Both forms show the **same** pattern.
- Can be described **without a person hierarchy**:
 - Theme sign indexes **patient**
 - Central agreement indexes **both arguments**
- Since this pattern is neither direct nor inverse, and since it is insensitive to the person hierarchy, I will refer to it as the **neutral** pattern.

SUMMARY: THREE AGREEMENT PATTERNS (TO BE REFINED)

	CENTRAL AGREEMENT	THEME SIGN
NEUTRAL PATTERN	indexes  both arguments	indexes patient
DIRECT PATTERN	indexes agent only	indexes patient
INVERSE PATTERN	indexes patient only	is special marker (PA <i>*-ekw</i>)

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REFINING

THE DEFINITION

OF "NEUTRAL"

CENTRAL AGREEMENT IN NEUTRAL FORMS

MOOSE CREE

Some pairs: indexes **both** arguments

1P→3	wa:pam -∅	-akiht
NEUT	see.TA -3OBJ	-1P:3
	‘we see her’	

3→1P	wa:pam -i	-amiht
NEUT	see.TA -1OBJ	-3:1P
	‘she sees us’	

Some pairs: indexes **one** argument **hierarchy?**

21→3	wa:pam -∅	-ahkw
NEUT	see.TA -3OBJ	-21P
	‘we.INCL see her’	

3→21	wa:pam -it	-ahkw
NEUT	see.TA -2OBJ	-21P
	‘she sees us.INCL’	

Some pairs: a **mix**

too subtle for hierarchy

2P→3	wa:pam -∅	-e:kw
NEUT	see.TA -3OBJ	-2P
	‘you.PL see her’	

3→2P	wa:pam -it	-a:kw
NEUT	see.TA -2OBJ	-3:2P
	‘she sees you.PL’	

HOW DOES NEUTRAL CENTRAL AGREEMENT WORK?

MOOSE CREE

has access to

In neutral paradigms, central agreement ~~indexes~~ the features of both arguments.

If the available morphological resources permit, central agreement indexes **both arguments**.

Conjunct: portmanteau central suffixes

-ak
1s:3

-at
2s:3

-akiht
1P:3

-amiht
3:1P

-a:kw
3:2P

-akokw
1:2P

If not, central agreement indexes the **richest / most specified / most marked features**

- Example: arguments are 21P and 3
- No portmanteaux available
- *-ahkw* expresses more than *-t*

Candidates

-ahkw
21P

-t
3

AN EXCEPTION

CREE

Pattern also discussed
by Xu (2016) and
Bhatia et al. (2018)

In certain neutral forms, central agreement rigidly indexes the **agent**, regardless of featural richness:

3→1s NEUT	wa:pam -i -t see.TA -1OBJ -3 'she sees me'	2s→1s NEUT	wa:pam -i -yan see.TA -1OBJ -2s 'you see me'
3→2s NEUT	wa:pam -is -k see.TA -2OBJ -3 'she sees you'	1s→2s NEUT	wa:pam -it -a:n see.TA -2OBJ -1s 'I see you'



agent
preference
always with
**1s/2s
patient**

Bad for both person hierarchy and competition

Explained by **avoidance of total redundancy**:
theme sign fully indexes the 1s/2s patient,
so central agreement can contribute new
information only by indexing the agent.

FINAL DEFINITIONS

	CENTRAL AGREEMENT	THEME SIGN
NEUTRAL PATTERN	indexes one or both arguments (determined morphologically)	indexes patient
DIRECT PATTERN	indexes agent only	indexes patient
INVERSE PATTERN	indexes patient only	is special marker (PA <i>*-ekw</i>)

Covers all(?) transitive forms in
Central and Eastern Algonquian

CONCLUSIONS

- Terms “direct” and “inverse” refer most properly to **agreement patterns**; shouldn’t be used simply as shorthand for particular argument combinations.
 - **Don’t impose an analysis where it doesn’t belong**
- All transitive forms inflect in one of three patterns: direct, inverse, or **neutral**, defined by behavior of theme sign and central agreement.
 - **Not all transitive forms are direct or inverse**
- The **neutral pattern** is diachronically the **oldest** and shows the most flexibility and irregularity.
 - **Still benefit in recognizing it as a type**

FURTHER POINTS

- “3OBJ” or “DIR”?
- Distribution of patterns
- Edge cases
- Exceptions
- Diachrony
- Comparison with existing literature

**THANK
YOU!**

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APPENDIX

1 THE “DIRECT” THEME SIGN

I have glossed the TA theme signs as in (1) (cf. Rhodes 1994; Brittain 1999). Only the most frequent allomorph of each theme sign is shown in the table. To facilitate comparison with other languages, Ojibwe consonants are spelled using the system in Nichols 1980.

(1) Glosses of TA theme signs

PA	Cree	Ojibwe	Delaware	Gloss
*-i	-i	-i	-i:	1OBJ
*-eθ	-it	-iN	-əl	2OBJ
*-a:	-a:	-a:	-a:	3OBJ
*-ekw	-ikw	-ikw	-əkʷ	INV

For the analysis of *-i and *-eθ as local object markers rather than local direct/inverse markers, see Hockett 1992 and Macaulay 2009, as well as Goddard’s (2015) statement that “[t]he endings on Proto-Algonquian TA verbs in the conjunct order have an object marker, called a theme sign”.

The analysis of the theme sign *-a: (and its prevocalic alternant *-Ø) as marking a third-person animate object warrants comment. In neutral paradigms, where the direct-inverse contrast is absent, this is the only reasonable analysis. Consider the Ojibwe conjunct passive forms in (2) (Nichols 1980:315–329). There are no plausible grounds for positing a category of direction here, since the inverse marker is completely absent from the paradigm. The theme sign clearly expresses nothing but the person of the object here.

(2) Conjunct passive forms of Ojibwe *wa:pam-* ‘see.TA’

	Form	Inflection	Notes
X→1SG	<i>wa:pamit</i>	-i -1OBJ	-t -3
X→2SG	<i>wa:pamikk</i>	-iN -2OBJ	-k -3
X→3SG	<i>wa:pamint</i>	-Ø -3OBJ	-int -X:3 cf. negative <i>wa:pama:ssiwint</i>
X→3OBV	<i>wa:pamimint</i>	-im -Ø -OBV -3OBJ	-int -X:3 cf. negative <i>wa:pamima:ssiwint</i>

In direct-inverse paradigms, however, it may seem that there is a case for regarding *-a: as expressing ‘DIRECT’ rather than ‘3OBJ’, since forms containing *-a: contrast minimally with forms containing the inverse theme sign *-ekw, as in the pair of Cree conjunct forms in (3). (All Cree forms cited here are based on the paradigms in Ellis 1971 and/or Wolfart 1973.)

- | | | | |
|--------|-------------------------|----|------------------------|
| (3) a. | 3→3' direct | b. | 3'→3 inverse |
| | <i>wa:pama:t</i> | | <i>wa:pamikot</i> |
| | wa:pam -a: -t | | wa:pam - iko -t |
| | see.TA - 3OBJ -3 | | see.TA - INV -3 |
| | 's/he sees OBV' | | 'OBV sees him/her' |

In view of the minimal contrast between the two forms in (3), why not gloss *-a:* as 'DIRECT' here? There are two problems with this analysis. First, it leaves us with a disjunctive treatment of the theme sign **-a:*. In some contexts, **-a:* marks a third-person object, as in (2), while in other contexts, **-a:* expresses the category of 'directness', as in (3a). Second, it fails to recognize that the contrast between direct and inverse is ultimately a *paradigmatic* contrast that holds between distinct inflectional forms, not a syntagmatic property of a single form or its constituent morphemes. The inflectional form in (3a) is indeed a direct form, but this does not mean that the form must contain a morpheme that means "direct", any more than an English active form must contain a morpheme that means "active". The simplest analysis is one in which the theme sign **-a:* marks a third-person object in (3a), as it clearly does in other forms such as (2). The "direct" status of the form as a whole arises from its contrast with the inverse form in (3b) rather than being a feature that is explicitly expressed by a particular morpheme.

2 DISTRIBUTION OF PATTERNS

The direct, inverse, and neutral agreement patterns are distributed as follows. **Non-local forms** are always direct or inverse in both the conjunct and the independent, as shown for Cree in (4) (conjunct) and (5) (independent).

- | | | | |
|--------|-------------------------|----|------------------------|
| (4) a. | 3→3' direct | b. | 3'→3 inverse |
| | <i>wa:pama:t</i> | | <i>wa:pamikot</i> |
| | wa:pam -a: -t | | wa:pam - iko -t |
| | see.TA - 3OBJ -3 | | see.TA - INV -3 |
| | 's/he sees OBV' | | 'OBV sees him/her' |
-
- | | | | |
|--------|-------------------------|----|------------------------|
| (5) a. | 3→3' direct | b. | 3'→3 inverse |
| | <i>wa:pame:w</i> | | <i>wa:pamik</i> |
| | wa:pam -e: -w | | wa:pam - ikw -w |
| | see.TA - 3OBJ -3 | | see.TA - INV -3 |
| | 's/he sees OBV' | | 'OBV sees him/her' |

Local forms are uniformly neutral in most languages, in both the conjunct and the independent, as shown for Plains Cree in (6) (conjunct) and (7) (independent). Some linguists have seen a direct-inverse pattern in local forms (e.g. Wolfart 1973), but Hockett (1992) and Macaulay (2009) argue against this analysis. The inverse pattern has, however, been extended to certain local forms in Blackfoot (2→1), Arapaho (2→1PL), and some Ojibwe dialects (1PL→2).

- (6) a. 2→1PL neutral
wa:pamiya:hk
 wa:pam -i -ya:hk
 see.TA -1OBJ -1PL
 'you see us'
- b. 1PL→2 neutral
wa:pamita:hk
 wa:pam -it -a:hk
 see.TA -2OBJ -1PL
 'we see you'
- (7) a. 2→1PL neutral
kiwa:pamina:n
 ki- wa:pam -i -ina:n
 2- see.TA -1OBJ -1PL
 'you see us'
- b. 1PL→2 neutral
kiwa:pamitina:n
 ki- wa:pam -it -ina:n
 2- see.TA -2OBJ -1PL
 'we see you'

For **mixed forms**, there is a **conservative** distribution in which the conjunct forms are neutral and the independent forms are direct/inverse. This conservative distribution is exemplified by the Cree forms in (8) (conjunct) and (9) (independent), although not all Cree paradigms are as conservative as this.

- (8) a. 1SG→3 neutral
wa:pamak
 wa:pam -∅ -ak
 see.TA -3OBJ -1SG:3
 'I see him/her'
- b. 3→1SG neutral
wa:pamit
 wa:pam -i -t
 see.TA -1OBJ -3
 's/he sees me'
- (9) a. 1SG→3 direct
niwa:pama:w
 ni- wa:pam -a: -w -∅
 1- see.TA -3OBJ -1SG -3SG
 'I see him/her'
- b. 3→1SG inverse
niwa:pamik
 ni- wa:pam -ikw -w -∅
 1- see.TA -INV -1SG -3SG
 's/he sees me'

There is also an **innovative** distribution in mixed forms in some languages: the direct-inverse pattern is extended to certain mixed conjunct pairs that were originally neutral. Compare the Moose Cree conjunct forms in (10), which show the conservative neutral pattern, with the equivalent Plains Cree forms in (11), which show the innovative direct-inverse pattern. The Plains Cree change took place within the historical period and has been examined by Dahlstrom (1989).

- (10) a. 1PL→3 neutral
wa:pamakiht
 wa:pam -∅ -akiht
 see.TA -3OBJ -1PL:3
 'we see him/her'
- b. 3→1PL neutral
wa:pamiyamiht
 wa:pam -i -amiht
 see.TA -1OBJ -3:1PL
 's/he sees us'

- (11) a. 1PL→3 direct
wa:pama:ya:hk
 wa:pam -a: -ya:hk
 see.TA -3OBJ -1PL
 ‘we see him/her’
- b. 3→1PL inverse
wa:pamikoya:hk
 wa:pam -iko -ya:hk
 see.TA -INV -1PL
 ‘s/he sees us’

Finally, mixed forms show a **transitional** distribution in some languages: the inverse pattern *but not the direct pattern* is extended to certain mixed conjunct pairs. Consider the Delaware forms in (12) and (13) (Goddard 1969). In the “notionally direct” (a) examples, the original neutral pattern is retained, but in the “notionally inverse” (b) examples, the original neutral pattern has been replaced with the inverse pattern.

- (12) a. 2SG→3 neutral
mi:lat
 mi:l -∅ -at
 give.TA -3OBJ -2SG:3
 ‘you give to him/her’
- b. 3→2SG inverse
mi:ləkwan
 mi:l -əkw -an
 give.TA -INV -2SG
 ‘s/he gives to you’
- (13) a. 1PL→3 neutral
mi:le:nk
 mi:l -∅ -e:nk
 give.TA -3OBJ -1PL
 ‘we give to him/her’
- b. 3→1PL inverse
mi:ləkwe:nk
 mi:l -əkw -e:nk
 give.TA -INV -1PL
 ‘s/he gives to us’

Plains Cree went through a transitional stage equivalent to the Delaware forms in (13) on its way to the uniform direct-inverse pattern in (11) (Dahlstrom 1989).

The distributions of the direct, inverse, and neutral patterns are summarized in Table 1.

3 EDGE CASES

In the proposed taxonomy of TA agreement patterns, repeated in (14), the boundary between the neutral and direct patterns is fuzzy. The neutral and direct patterns are alike in that the theme sign indexes the patient. The sole difference is the central agreement: in neutral paradigms, the central agreement has the flexibility to index either the agent, the patient, or both arguments, while in direct paradigms, the central agreement rigidly indexes only the agent.

- (14) TA agreement patterns

	CENTRAL AGREEMENT	THEME SIGN
DIRECT PATTERN	indexes agent only	indexes patient
NEUTRAL PATTERN	indexes one or both arguments	indexes patient
INVERSE PATTERN	indexes patient only	is special marker *-ekw

PARADIGM	INFLECTION	
Non-local	3→3' <u>direct</u>	3'→3 inverse
Local (most languages)	1→2 neutral	2→1 neutral
Mixed independent	1/2→3 <u>direct</u>	3→1/2 inverse
Mixed conjunct, conservative	1/2→3 neutral	3→1/2 neutral
Mixed conjunct, transitional	1/2→3 neutral	3→1/2 inverse
Mixed conjunct, innovative	1/2→3 <u>direct</u>	3→1/2 inverse

Table 1: Distribution of direct, inverse, and neutral agreement patterns

If we wished to be fully explicit about the set of possible agreement forms, we could explode the neutral pattern into three sub-patterns, as shown in the expanded taxonomy in (15): “pseudo-direct” neutral forms in which the central agreement indexes the agent only, “portmanteau” neutral forms in which the central agreement indexes both arguments, and “pseudo-inverse” neutral forms in which the central agreement indexes the patient only.

(15) Full set of possible TA agreement patterns

	CENTRAL AGREEMENT	THEME SIGN
DIRECT FORM	indexes agent only	indexes patient
PSEUDO-DIRECT NEUTRAL FORM	indexes agent only	indexes patient
PORTMANTEAU NEUTRAL FORM	indexes both arguments	indexes patient
PSEUDO-INVERSE NEUTRAL FORM	indexes patient only	indexes patient
INVERSE FORM	indexes patient only	is special marker *-ekw

For most purposes, this degree of detail is unnecessary, as there doesn’t seem to be a deep difference between the three kinds of neutral patterns: paradigms of neutral forms normally show a random jumble of the three sub-patterns (as discussed in the presentation). But one notable point does emerge from the finer-grained taxonomy in (15): there is *no formal distinction* between a direct form and a neutral form in which the central agreement happens to index only the agent. Either way, the agreement pattern is the same.

The non-distinctness of direct forms and “pseudo-direct” neutral forms is illustrated by the Cree examples in (16). Both examples are 21PL→3 conjunct forms. In both forms, the theme sign

indexes the patient and the central agreement indexes only the agent. Nevertheless, I suggest that the Moose Cree form in (16a) is best classified as a neutral form while the Plains Cree form in (16b) is best classified as a direct form. Why this difference?

- | | | | | |
|------|----|--------------------------------|----|--------------------------------|
| (16) | a. | 2 _{1PL} →3 neutral | b. | 2 _{1PL} →3 direct |
| | | <i>wa:pamahk</i> | | <i>wa:pama:yahk</i> |
| | | wa:pam -∅ -ahkw | | wa:pam -a: -yahkw |
| | | see.TA -3OBJ -2 _{1PL} | | see.TA -3OBJ -2 _{1PL} |
| | | 'we see him/her' | | 'we see him/her' |

There is one visible difference between the Moose and Plains forms: the third-person theme sign is realized as -∅ in Moose and -a: in Plains. But this allomorphy is not a reliable diagnostic of the neutral/direct distinction. While direct forms do reliably show the -a: allomorph (or its unlauted variant -e:), neutral forms vary: the null allomorph often appears, as in (16a), but the overt allomorph -a: can be restored by adding a following consonant-initial suffix, as in the dubitative form in (17) (Ellis 1971:91; see also Goddard 1969:87).

- (17) 2_{1PL}→3 neutral
- wa:pama:wahkwe:*
- wa:pam -a: -w -ahkw -e:
- see.TA -3OBJ -DUB -2_{1PL} -DUB
- 'if we see him/her'

If the classification of the Moose Cree form as neutral and the Plains Cree form as direct is not based on the realization of the theme sign, then what is the basis for the difference? The answer is paradigmatic: the Moose Cree 2_{1PL}→3 form, which has a morphological structure that could conceivably be either neutral or direct, occurs in a paradigm whose other members are clearly neutral, as they show portmanteau central agreement pattern. The Plains Cree 2_{1PL}→3 form, on the other hand, occurs in a paradigm whose other members are clearly direct, as they uniformly show agent-only central agreement. The character of the SAP.PL→3 paradigm as a whole is clearly neutral in Moose Cree and direct in Plains Cree, and this fact allows us to classify the ambiguous 2_{1PL}→3 forms as neutral in Moose Cree and direct in Plains Cree.

4 EXCEPTIONS

Across the Central and Eastern Algonquian languages, I know of only one clear exception to the proposed typology of transitive forms. The conjunct 3→1_{PL} form ordinarily shows the neutral agreement pattern in Ojibwe, as shown for Southwestern Ojibwe in (18a): the theme sign indexes the patient and the central agreement indexes both arguments. At Parry Island, however, Rogers (1975) documented the 3→1_{PL} form in (18b), in which the theme sign has changed to the inverse marker -igw but the central agreement still indexes both arguments. The proposed typology of direct, inverse, and neutral forms has no space for a form with this structure: the inverse theme

sign should always be accompanied by patient-only central agreement. To my knowledge, the Parry Island dialect is the only exception to this otherwise solid generalization.

- | | | | | |
|------|----|-------------------------------|----|-------------------------------|
| (18) | a. | 3→1PL neutral | b. | 3→1PL inverse |
| | | <i>wa:bamiyangid</i> | | <i>wa:bamigoya:ngid</i> |
| | | wa:bam -i -yangid | | wa:pam -igo -ya:ngid |
| | | see.TA -1OBJ -3:1PL | | see.TA -INV -3:1PL |
| | | 's/he sees us' (Southwestern) | | 's/he sees us' (Parry Island) |

It is notable, however, that alongside the unexpected “semi-inverse” 3→1PL form in (18b), Rogers also documented the alternative “fully inverse” 3→1PL form in (19), in which the inverse theme sign is accompanied by patient-only central agreement as expected.

- | | |
|------|--|
| (19) | 3→1PL inverse |
| | <i>wa:bamigoya:ng</i> |
| | wa:pam -igo -ya:ng |
| | see.TA -INV -1PL |
| | 's/he sees us' (Parry Island alternative form) |

The existence of a fully inverse 3→1PL form alongside the unusual semi-inverse form suggests that a change was in progress at the time of Rogers' documentation: the 3→1PL form was shifting from the original neutral pattern in (18a) to the innovative inverse pattern in (19), with the semi-inverse form in (18b) as a (presumably) unstable intermediate stage. We can fit the semi-inverse form into the proposed typology if we analyze the central suffix *-ya:ngid* in (18b) as an allomorph of the simple 1PL suffix *-ya:ng* rather than a portmanteau 3:1PL suffix. The lengthening of the suffix vowel from *a* to *a:* in the Parry Island form in (18b) supports this analysis, as this lengthening makes the suffix more closely resemble the simple 1PL central suffix *-ya:ng*.

As far as I am aware, all other TA forms in the Central and Eastern languages fit into the proposed taxonomy, but I would be happy to hear about further exceptions. The more drastic developments that have taken place in the Plains languages, such as the emergence of a full direct-inverse pattern in Blackfoot local forms and the development of additional theme signs in Arapaho (Goddard 1979:93–94, 2015:377), may place these languages outside the scope of the proposed taxonomy.

5 DIACHRONY

The conjunct order is older than the independent: there was a time when the conjunct existed and the independent did not (Goddard 1974:323ff). In the conservative conjunct system, the TA forms are uniformly neutral except for the non-local paradigm, which shows the direct-inverse pattern. Based on comparative Algonquian evidence, McLean (2001) has argued that the direct-inverse pattern in the conjunct non-local paradigm arose from the bleaching of an earlier active-passive voice opposition. So the direct-inverse pattern is an innovation, albeit a very old one. This leaves the neutral pattern as the oldest of all existing agreement patterns in Algonquian.

The overall development of the agreement patterns may have proceeded roughly as follows:

1. At some very early stage of pre-PA, all ordinary verb forms inflected with the neutral pattern. There was also special morphological marking for an active-passive voice opposition in forms with two third-person arguments.
2. The active-passive voice opposition eventually underwent bleaching to become a direct-inverse opposition (McLean 2001). Direct-inverse oppositions commonly originate in this way (Givón 1994). At this point, the direct-inverse opposition existed only in non-local forms. This is the system that is attested in the conjunct order in conservative languages.
3. At either the same time as step 2 or a later time, the independent order sprang into existence through the reanalysis of possessed deverbal nouns as verbs (Goddard 1974; Proulx 1982). Since possessed nouns are always third person, the innovative verb inflection could not automatically handle forms with first- or second-person objects (cf. Quinn 2006:221ff). The inverse agreement pattern from the non-local forms was pressed into service to fill this gap in the paradigm, thereby creating a large set of inverse mixed forms in the independent that had no parallel in the original conjunct. This is the system that is attested in the independent order in all of the languages.
4. In many languages, the direct-inverse pattern was later analogically extended from independent mixed forms to some of the corresponding conjunct mixed forms (e.g. Plains Cree), often going through a transitional stage in which the inverse pattern is extended but the direct pattern is not (e.g. Delaware).
5. A smaller group of languages extended the inverse pattern to certain local forms, which were not originally inverse in either the conjunct or the independent. Most of the languages, however, retain the original neutral pattern in the local forms. As Heath (1998:84) observes, local forms are typically the last bastion of old patterns: “in language after language they are opaque and irregular”.

The general trajectories of change identified in steps 4 and 5 have been followed to different extents in different languages. The result is that almost every contemporary language has a slightly different mixture of direct, inverse, and neutral forms in its TA paradigm.

6 COMPARISON WITH EXISTING LITERATURE

The terms “direct” and “inverse” go back to Howse 1844 (for Cree) and were used by Bloomfield. Bloomfield’s use of these terms was neither fully worked-out nor fully consistent. In his descriptions of Meskwaki (1927) and Ojibwe (1958), Bloomfield defined “direct” and “inverse” in terms of both the patterning of central agreement and the identity of the theme sign:

- (20) Bloomfield on Meskwaki (1927:197)
- a. “direct forms, prefix agrees with actor (I — him, he — obv.), suffix \bar{a} —”
 - b. “inverse forms, prefix agrees with object (he — me, obv. — him), suffix $-eg$ —”
- (21) Bloomfield on Ojibwe (1958:46)
- a. “DIRECT forms: the prefix...agrees with the actor; theme sign $\bar{1}a$.”
 - b. “INVERSE forms: the prefix does not agree with the actor; theme sign $\bar{1}ikw$ ”

These definitions are applicable only to the independent order, since the prefix does not appear in the conjunct. For the conjunct, Bloomfield (1958) does not give complete definitions, but his presentation of TA conjunct forms (pp. 53–57) distinguishes “direct forms” (SAP→3, 3→3', X→3), “inverse forms” (3'→3, 0→3, 0→SAP, X→SAP), “me forms” (2→1, 3→1), and “thee forms” (1→2, 3→2). This classification is based solely on the identity of the theme sign: direct forms have $*-a$; inverse forms have $*-ekw$, me forms have $*-i$, and thee forms have $*-e\vartheta$. Since the patterning of central agreement does not play a role in the classification, this is not really a taxonomy of TA agreement patterns, but rather just a convenient way to organize the presentation of TA conjunct forms. It is notable, however, that Bloomfield recognizes that the 3→1 and 3→2 conjunct forms are not inverse, a fact that he emphasizes when he introduces the conjunct inverse forms on page 53: “the forms with first and second person objects (and animate actor) are not in this group”.

In Bloomfield’s (1946) sketch of Meskwaki, Cree, Ojibwe, Menominee, and PA, the terms “direct” and “inverse” are not used, nor are any comparable terms.

Bloomfield’s (1962) grammar of Menominee provides the fullest and most refined expression of his descriptive framework, but the definition of TA forms is not any clearer than before and differs from the approach that he took in earlier work. Bloomfield lays out seven sets of TA inflections (p. 141), which are defined “as to prefixation” and are thus applicable only to the independent. Direct and inverse inflections are two of the seven sets. In contrast to his earlier work on Meskwaki and Ojibwe, in which he defined “direct” and “inverse” in terms of the patterning of the prefix and the theme sign, Bloomfield now gives definitions that refer directly to the person features of the arguments, although the patterning of the prefix is also mentioned:

- (22) Bloomfield on Menominee (1962:141)
- a. “Direct forms. The first or second person acts upon a third person, or a proximate third person acts upon an obviative. If there is a prefix, accordingly, it agrees with the actor”.
 - b. “Inverse forms. The third person acts upon the first or second person, or an obviative third person acts upon a proximate third person. If there is a prefix, accordingly, it agrees with the object”.

The seven-way classification of TA inflections applies only to the independent. When he describes conjunct forms, Bloomfield sometimes avoids the terms “direct” and “inverse” altogether. For example, in describing the distribution of the theme sign $-a$, Bloomfield states that, in the independent, it occurs in “direct forms”, while in the conjunct, it appears when “proximate third person acts on obviative” (p. 142). However, he does state that the theme signs $-e$ (PA $*-i$ ‘OBJ’)

and *-En* (PA *-eʒ ‘2OBJ’) occur in “inverse forms” in the conjunct, i.e. in 3→1 and 3→2 forms (pp. 142–143), a usage that contradicts his 1958 statement that “the forms with first and second person objects (and animate actor) are not in [the inverse] group” (Bloomfield 1958:53). At the start of his full presentation of TA conjunct forms, Bloomfield simply states that the conjunct forms “are distributed among the themes otherwise than in the independent” (p. 179) and then presents the forms according to the theme sign that they contain, as he did for Ojibwe.

All this is to say that, despite Bloomfield’s great insights into many aspects of Algonquian grammar, his approach to the concepts of “direct” and “inverse” is not particularly useful. He only ever defined the terms in full for the independent order, where a definition is easiest to formulate, and even there his approach was not consistent over the years.

A survey of the use of “direct” and “inverse” in the post-Bloomfield literature is beyond the scope of this handout. It seems common for authors to use the terms as shorthands for particular configurations of arguments: a 3→1 form is “inverse” because 1 outranks 3 on the person hierarchy, regardless of what the actual morphology of the form looks like. However, this approach is by no means universal. Goddard (2000:110), for example, writes of the TA conjunct forms for “inverse and third-person on first and second”, a wording that implicitly recognizes that conjunct 3→1 and 3→2 forms are not inverse. I note also Dahlstrom’s statement that the TA local forms in the Meskwaki independent order are “neither direct nor inverse” (Dahlstrom ms.:4–17). In this talk I have tried to pull these not-inverse-but-also-not-direct TA forms out into the open. Please let me know if there are previous attempts to do the same thing that I have failed to notice.

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