The cline of the peripheral agreement and its implication about object types

Yadong Xu • University of Manitoba

xuy34569@myumanitoba.ca

Introduction
Peripheral agreement

- Peripheral Agreement (PER, "peripheral endings", Goddard 1979) occurs at the right periphery of the verb.

- PER indexes the phi-features of the object, i.e. number, gender, and obviation.

- **Algonquian independent indicative verb template：**

  prefix–stem–theme – ftv –central – peripheral

  [person] subject [person] object [number] subject [phi] object

- This talk examines the patterns of PER in 5 languages.

- These patterns are illuminating in revealing the structural difference of the primary object from the secondary object.

*ne-wa·pam-a·-w-ena·n-**a***
1 -see   -3 -ftv-1p -3s
'We see **him/her** (an.)'

*ne-wa·pam-a·-w-ena·n-**aki***
1 -see   -3 -ftv-1p   -3p
'We see **them** (an.)'

Peripheral pattern (PER)
Proto-Algonquian

3s *–a	0s *–i	3's *–ari
3p *–aki	0p *–ari	3'p *–ahi

- 3rd-person objects (if definite) are always indexed by PER in Proto-Algonquian.

  ❑ T**A**=monotransitive, animate object
  ❑ T**I**=monotransitive, inanimate object

  ❑ AI+**O**=pseudo-transitive (Bloomfield 1946)
  ❑ TA+**O**=ditransitive, goal-**theme**

Primary object

TA
ne-wa·pam-a·-w-aki***
1 -see   -3 -ftv-3p
'I see **them** (an.)'

TI
ne-wa·pant-a·-n -ari***
1 -see   -0 -ftv-0p
'I see **them** (in.)'

Secondary object

AI+O
ne-kapa·   -n -a***
1   -disembark-ftv-3s
'I disembark **it** (an.)'

TA+O
ne-nekaθ -a·-en-ari***
1 -abandon-3-ftv -0p
'I abandon **them** (in.) for him'

Plan

- **1. Overview: crosslinguistic cline**
- **2. PER patterns by verb class**

  - ❑ T**A** (mixed vs. non-local)
  - ❑ T**I** (mixed vs. non-local)

  - ❑ AI+**O**=pseudo-transitive
  - ❑ TA+**O**=ditransitive

- **3. Structural position**: primary object vs secondary object
- **4. Meta-analysis for each language**
- **5. Implications of PER variations about object types**
- **6. Concluding remarks**

1. Overview
Cline of PER

- I focus on the object marking indexed by PER in 5 daughter languages.
- The pattern of PER falls in a cline as shown in the "staircase" table below:

	TA mixed	TI mixed	TA/TI non-local	AI+O secondary object	TA+O secondary object
Delaware	✓	✓	✓	✓	✓
Ojibwe	✓	✓	✓	✓	X
Oji-Cree	✓	✓	✓	X	X
Menominee	✓	✓	X	X	X
Cree	✓	X	X	X	X

2.1 PER pattern
TA mixed

	Delaware	Ojibwe	Oji-Cree	Menominee	Cree
1s—3p	✓	✓	✓	✓	✓

- The 3p object are indexed by PER in the TA mixed forms in all five languages.

Delaware
nə̆-mi·l-á· -w-ak
1-give.to-3-ftv-3p
'I give to **them** (an.)'

Ojibwe
n-waabam-aa-ag
1 -see   -3 -3p
'I see **them** (an.)'

Oji-Cree
ni-kii-waapam-aa-k
1-past-see   -3 -3p
'I saw **them** (an.)'

Menominee
ne-na:n-a:-w-ak
1-fetch -3 -ftv-3p
'I fetch **them** (an.)'

Cree
ni-wâpam-â-w-aki
1 -see   -3 -ftv-3p
'I see **them** (an.)'

Data in this talk are from reference grammars
- Delaware: Goddard (1979)
- Ojibwe: Valentine (2001)
- Menominee: Bloomfield (1946, 1962)
- Cree: Wolfart (1973)
- except for Oji-Cree: fieldwork (my own and Will Oxford's)

2.2 PER pattern
TI mixed

- Cree drops out first, not indexing the object by PER, resulting in the number of the inanimate object being neutralized.

Delaware
m-pən-am-ə́n-a
1 -look.at-0-ftv-0p
'I see **them** (in.)'

Ojibwe
n-waaband-aa-n-an
1 -see -0 -ftv-0p
'I see **them** (in.)'

Oji-Cree
ni-kii-takihshikaat-aa-n-an
1-past-kick -0 -ftv-0p
'I kicked **them** (in.)'

Menominee*
ne-po:n-a:-n-an
1-put.in-0-ftv-0p
'I put **them** (in.) in the pot'

Cree
ni-wâpaht-ê-n
1 -see -0-ftv
'I see **it/them** (in.)'

*only for singular SAP subject, if the SAP subject becomes plural, it'll pattern with Cree, no PER.

2.3 PER pattern
TA non-local

- Menominee further drops out along with Cree, not indexing the obviative object in the non-local TA form.

Delaware
(w)-mi·l-á·-wá·w-al
3 -give.to-3- 3p- obv
'They give to **him**/**them** (obv.)'

Ojibwe
w-waabam-aa-waa-an
3 -see   -3 -3p   -obv
'They see **him**/**them** (obv.)'

Menominee
na:n-ε:-w-ak
fetch-3 -ftv-3p
'**They** fetched **him**/**them** (obv.)'

Oji-Cree
niishin naapewak o-kii-nihs-aa-waa-n   mihshin waapoosoon.
two   men   3-past-kill-3 -3p -obv many   rabbits
'Two men killed **many rabbits** (obv.)'

Cree
wâpam-ê-w-ak
see   -3 -ftv-3p
'**They** see **him**/them (obv.)'

2.4 PER pattern
TI non-local

- Same pattern as in previous TA non-local forms, PER is not indexing the object in Menominee and Cree.

Delaware
w-pən -am-(ə)nē-wāw-ī(l)
3 -look.at-0 -ftv -3p -0p
'They look at **them** (in.)'

Ojibwe
w-waaband-aa-na-waa-an
3 -see -0 -ftv -3p -0p
'They see **them** (in.)'

Menominee
po:n -am-w-ak
put.in -0 -ftv -3p
'**They** put **it/them** (in.) in the pot'

Oji-Cree
Menii o-kii-waapat-aa-n -an nihsin ciimaanan.
Mary 3-past-see -0 -ftv-0p *three boats*
'Mary saw **three boats** (obv.)'

Cree
wâpat-am-w-ak
see -0 -ftv-3p
'**They** see **it/them** (in.)'

2.5 PER pattern
AI+O

- Object not indexed by PER further extends to Oji-Cree in AI+O verbs.

Delaware
nə-waní·-n -a·k
1 -see -ftv-3p
'I forgot **them** (an.)'

Ojibwe
n-miigwe -n -ag
1-give.away-ftv-3p
'I give **them** (an.) away'

Oji-Cree
ataawe-w wapikon-iin
buy -3 flower -0p
'She buys **flowers** (in.)'

Menominee
čaan ne-tooweemate-m
John 1-have.friend -1s
'I have **John** as a friend.'

Cree
âpacihtâ-w
use -3
'He uses **it**'

2.6 PER pattern
Theme of TA+O

	Delaware	Ojibwe	Oji-Cree	Menominee	Cree
1—3+0	✓	X	X	X	X

- Only in Delaware, theme is indexed by PER, the rest of 4 languages pattern like ordinary TA, agreeing with goal.

Delaware
nə-mí·l-a·-n -a
1 -give -3 -ftv-0p
'I gave **them** (in) to him'

Ojibwe
ni-gii-miin-aa-Ø Mani mzinegen
1-past-give -3-3s   Mary   book
'I gave **a book** to **Mary**'

Menominee
ne-weehtamow-a:-w-Ø
1 -tell   -3 -ftv-3s
'I tell **it** to **him**.'

Oji-Cree
*Menii **o-miin-aa-n** Cawn-an masinahiikan-an*
Mary 3 –give -3 -obv John-obv   book   -0p
'Mary gives **John books**'

Cree
ni-âtotamaw-ê-w -Ø
1 -tell   -3-ftv-3s
'I tell **it** to **him**'

Recap
Diachronic cline

- In 4 daughter languages, Ojibwe, Oji-Cree, Menominee, and Cree, PER not indexing the object gradually extends.

	TA mixed	TI mixed	TA/TI non-local	AI+O secondary object	TA+O secondary object
Delaware	✓	✓	✓	✓	✓
Ojibwe	✓	✓	✓	✓	X
Oji-Cree	✓	✓	✓	X	X
Menominee	✓	✓	X	X	X
Cree	✓	X	X	X	X

3. Structural positioning
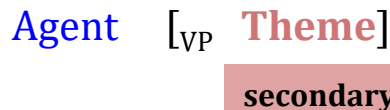## Primary vs. secondary object

- Structurally, the **primary object** differs from the **secondary object**.

- Typologically, Alg. ditransitives have the **secundative** alignment (Haspelmath 2005).

TA/TI   Agent   **Goal**   [$_{VP}$ ~~Goal~~]
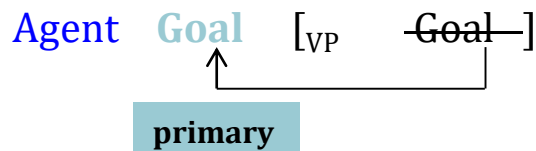
primary

❑ Goal= **primary**; Theme =**secondary**
  - ▪ "Object shift": goal is moved out from VP (Diesing 1992; Holmberg 1986)

AI+O   Agent   [$_{VP}$ **Theme**]

secondary

❑ **Theme** is structurally lower than **goal**, inside the VP.

TA+O   Agent   **Goal**   [$_{VP}$ **Theme**]

primary   **secondary**

❑ *Locality effect*: each language varies in how far they can agree.

4.1 Analysis
Delaware

- Locality is not rigid in Delaware.

	TA mixed	TI mixed	TA/TI non-local	AI+O secondary object	TA+O secondary object
Delaware	✓	✓	✓	✓	✓

TA/TI	Agent	**Goal**	[$_{VP}$ ~~Goal~~]	
AI+O	Agent	[$_{VP}$	**Theme**]	
TA+O	Agent	Goal	[$_{VP}$	**Theme**]

4.2 Analysis
Ojibwe

- Locality isn't very restricted to VP-external object only.

- **Intervening restriction**: the lower Theme cannot be accessed if it's blocked by an argument along its way.

	TA mixed	TI mixed	TA/TI non-local	AI+O secondary object	TA+O secondary object
Ojibwe	✓	✓	✓	✓	✗

TA/TI   Agent   **Goal**   [$_{VP}$ ~~Goal~~]

AI+O   Agent   [$_{VP}$ **Theme**]   ❑ AI+O: VP-internal Theme can be accessed.

TA+O   Agent   **Goal**   [$_{VP}$ **Theme**]   ❑ TA+O: Goal situating before Theme blocks the agreement

4.3 Analysis
Oji-Cree

- Oji-Cree also bans an intervening argument before Theme.
- **Local restriction**: only the VP-external object can be accessed.

	TA mixed	TI mixed	TA/TI non-local	AI+O secondary object	TA+O secondary object
Oji-Cree	✓	✓	✓	✗	✗

TA/TI	Agent	**Goal**	[VP ~~Goal~~]	
AI+O	Agent	[VP **Theme**]		□ AI+O: theme is VP-internal
TA+O	Agent	**Goal**	[VP **Theme**]	□ TA+O: goal stands before theme

4.4 Analysis
Menominee

- Menominee seems not to allow Goal to shift out of the VP in certain conditions.
- **Shifting constraint:** 3rd-person Goal cannot move out the VP if there's already one outside.

	TA mixed	TI mixed	TA/TI non-local	AI+O secondary object	TA+O secondary object
Menominee	✓	✓	X	X	X

TA mixed	SAP	**3**	[$_{VP}$ ~~3~~]	
TI mixed	SAP	**0**	[$_{VP}$ ~~0~~]	
TA/TI non-local	3		[$_{VP}$ **0̸/3̸′**]	
AI+O	Agent		[$_{VP}$ **Theme̸**]	
TA+O	Agent	**Goal**	[$_{VP}$ **Theme̸**]	

- TI/TA mixed: 3rd-person Goal can shift out, thus accessible.

- TI/TA non-local: 3rd-person Goal cannot shift out, thus not meeting locality requirement.

4.5 Analysis
Cree

- A more strict **shifting constraint**: the shifted Goal must be **proximate and animate** (3).

	TA mixed	TI mixed	TA/TI non-local	AI+O secondary object	TA+O secondary object
Cree	✓	X	X	X	X

TA mixed	SAP	**3**	[$_{VP}$ ~~3~~]	
TI mixed	SAP		[$_{VP}$ ~~0~~]	
TA/TI non-local	3		[$_{VP}$ ~~0~~/3´]	
AI+O	Agent		[$_{VP}$ ~~Theme~~]	
TA+O	Agent	**Goal**	[$_{VP}$ ~~Theme~~]	

- ❏ TA mixed: 3 Goal can be shifted
- ❏ TI mixed & and TA/TI non-local: 3' or 0 cannot shift out of the VP, thus inaccessible.

5.1 Implications
AGREE variations

	TA mixed	TI mixed	TA/TI non-local	AI+O secondary object	TA+O secondary object
Delaware	✓	✓	✓	✓	✓
Ojibwe	✓	✓	✓	✓	✗
Oji-Cree	✓	✓	✓	✗	✗
Menominee	✓	✓	✗	✗	✗
Cree	✓	✗	✗	✗	✗

- Variations of PER indexing the **secondary object** (Theme) manifest the **locality effect** (VP-internal object may not be accessible).

TA+O

$$P \quad \ldots \quad \textbf{Goal} \quad [_{VP} \textsc{Theme}]$$

AI+O

$$P \quad \ldots \quad [_{VP} \textsc{Theme}]$$

- Variations of PER indexing the **primary object** (Goal) reveal language-specific constraints on **object shift** ("non-3" object may not be shifted).

TA mixed

$$\ldots \text{AGENT} \quad 3 \quad [_{VP} \cancel{3}]$$

TI mixed

$$\ldots \text{SAP} \quad 0 \quad [_{VP} 0]$$

TA/TI non-local

$$\ldots \quad 3 \quad 3' \quad [_{VP} 3']$$

5.2 Implications
Object types and their position

- Object type and object shift:

  - ❑ Primary object = GOAL, shifted, VP-external

  - ❑ Secondary object = THEME, unshifted, VP-internal

- Tying back to Diesing's VP (cf. Mapping Hypothesis, 1992), it's about semantic mapping:

  - ❑ VP-external object → definite;

  - ❑ VP-internal object → indefinite

- Can her definiteness-mapping be extended to animacy-mapping in Algonquian?

5.3 Implications
Animacy-mapping

- Yes, it can.

- Further evidence is found in Delaware TA inverse forms where **animate** subject is indexed by PER while **inanimate** subject is not indexed.

animate
ną̆-mi·l -əkw-w-ak
1 -give.to-inv -ftv-3p
'Someone give to me.'

inanimate
n-təmso·-ko-h -na   paxksi·kan-al
1-cut   -inv-ftv-1p   knife   -0p
'Some knives cut us.'

- Simply speaking, animate subject is introduced higher than the inanimate subject, parallel to previous PER primary vs secondary object patterns (see detailed analysis in Xu 2020).

Concluding remarks

	TA mixed	TI mixed	TA/TI non-local	AI+O secondary object	TA+O secondary object
Delaware	✓	✓	✓	✓	✓
Ojibwe	✓	✓	✓	✓	✗
Oji-Cree	✓	✓	✓	✗	✗
Menominee	✓	✓	✗	✗	✗
Cree	✓	✗	✗	✗	✗

- I present the cline of peripheral agreement from 5 Algonquian languages.

- I propose that secondary object (theme) is inherently lower than primary object (goal).

- The crosslinguistic variation of PER reflects the parameterization of Agree:

  - *locality effect*: peripheral agreement is sensitive to local object arguments but subject to variations when the object is more distant.

  - *shifting constraint*: object shift may not take place if the object is inanimate or is obviative.

- Last, animacy and obviation play a very active role in Algonquian grammar. PER indexing phi-features (gender and obviation) unsurprisingly reflects the sensitivity to such grammatical categories.

Acknowledgement

I sincerely thank:

- Dr. Will Oxford for his guidance and valuable input!

- Samson Beardy for sharing his Oji-Cree knowledge with me.

- Dr. David Pentland for his comment on the Plains Cree data.

- my Algonquian morphosyntax reading group peers, Tiffany and Zlata.

- UMGF for the financial support

References

Bloomfield, Leonard. (1946). Algonquian. In Linguistic structures of Native America, ed. by Harry Hoijer et al., 85–129. Viking Fund Publications in Anthropology 6. New York.

Bloomfield, Leonard. (1962). *The Menomini Language*. Yale University Press.

Diesing, Molly. (1992). Indefinites. Cambridge, Mass.: MIT Press.

Goddard, Ives (1979). Delaware verbal morphology. New York/London: Garland Publishing Inc.

Haspelmath, Martin. (2005). Argument marking in ditransitive alignment types. *Linguistic discovery 3.1*, 1–21.

Holmberg, Andres. (1986). Word order and syntactic features in the Scandinavian languages and English. Doctoral dissertation, University of Stockholm.

Lochbihler, Bethany. (2012). Aspects of argument licensing. Doctoral dissertation. McGill University.

Pentland, David. (1999). The morphology of the Algonquian independent order. In Papers of the 30th Algonquian Conference, ed. D. H. Pentland, 222-266. Winnipeg, University of Manitoba.

Wolfart, H. C. (1973). Plains Cree: A grammatical study. Transaction of the American Philosophical Society, new series, volume 63, part 5, Philadelphia. Montreal: University of Montreal.

Valentine, J. Randolf. (2001). *Nishnaabemwin reference grammar*. Toronto: University of Toronto Press.

Xu, Yadong. (2020). Differential subject marking also depends on syntactic height: Evidence from Delaware. Paper presented at WCCFL 38. University of British Columbia. Vancouver, March 6-8.

Menominee TI mixed
Plural SAP subject

- SAP subject's number seems also play a role in the patterning of PA.

1s—0p

*ne-po:n-a:-n-**an***

1-put.in-0-ftv-0p

'I put **them** (in.) in the pot'

2s—0p

*ke-po:n-a:-n-**an***

2-put.in-0-ftv-0p

'You (sg) put **them** (in.) in the pot'

1p—0

ne-po:n-ε:-menaw

1 -put.in-0-1p

'We put **it/them** (in.) in the pot'

2p—0

ke-po:n-ε:-muaw

2 -put.in-0 -2p

'You (pl) put **it/them** (in.) in the pot'