

Inverse in Passamaquoddy as the spell-out of Feature Gluttony

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Coon & Keine (2020): a general mechanism for creating hierarchy effects that covers Person Case Constraint (PCC) effects, dative-nominative constructions, and copula constructions.

This poster: hierarchy effects of direct/inverse agreement in Passamaquoddy (Algonquian) can be viewed as a result of FG as well.

Main take-away points:

- ★ Inverse marker *-oku* in Passamaquoddy is the spell-out of a feature gluttony created by the Voice head.
- ★ When a probe is *sandwiched* between two DPs, as Voice is, we get *object agreement* in the absence of FG.
- ★ Passamaquoddy's Voice probe is searching for a 3rd person obviative DP (*maybe: prototypical object?*).

Direct & Inverse in Passamaquoddy

- **Passamaquoddy**: an Algonquian language which has preserved the Proto-Algonquian patterns (Oxford 2014).
- **Verbal template** of Passamaquoddy (simplified):

Prefix	Verb Stem	Theme sign	Neg	Central	Mode/Tense	Peripheral
n	tokom	a	w	inu	pon	ik
1	hit.TA	3	NEG	1PL	PST	3PL
?	V	Voice	Neg	T	T	C
π		π		# (+ π)		# (+ π)

Table 1: 1PL.EX Subject, 3PL Object: ‘We (excl.) hit them.’

- **Direct/Inverse agreement** = theme sign agreement: shows only π -agreement and can be viewed descriptively as object agreement (Oxford 2019) + a default form (“inverse”), the choice between which is determined by a hierarchy.

Direct & Inverse in Passamaquoddy

- There are two main clause types in Passamaquoddy (“orders”) — Independent and Conjunct, and the hierarchy depends on it:

(3) **Person hierarchy in Independent**

SAP (speech act participants: 1,2) >3 (animate proximate) >4 (animate obviative)

(4) **Person hierarchy in Conjunct**

SAP (speech act participants: 1,2) and 3 (animate proximate) >4 (animate obviative)

- If the subject outranks the object on the relevant hierarchy, we see agreement with the object in person in the Theme sign slot.
- If the object outranks the subject, the default “inverse” marker *oku/oq* is inserted.

Illustration:

(5) ' -tokom-**a**-l
3-hit.TA.Ind-**3**-OBV
'(S)he (PROX) hits him/her (OBV).'

(6) ' -tokom-**oku**-l
3-hit.TA.Ind-**INV**-OBV
'(S)he (OBV) hits him/her (PROX).'

- In (5) the subject is 3rd person proximate and the object is 3rd person obviative, so the subject “outranks” the object on the hierarchy \Rightarrow *object agreement*.
- In (6) the subject is 3rd person obviative and the object is 3rd person proximate, so the object “outranks” the subject on the hierarchy \Rightarrow *inverse marker*.

Feature Gluttony (Coon & Keine 2020)

- Person and number features are arranged in feature geometries (Harley & Ritter 2002, Béjar 2003, a.o.)
- Probes consist of hierarchically organized segments reflecting their requirements:
 - The **non-lowest segments** of the probe = the features that the probe will *interact* with.
 - The **lowest segment** of the probe = the feature that the probe is *satisfied* by.
- **Illustration:** German T probe from the copula construction

$$T \left[\left[\begin{array}{c} uPERS \\ | \\ uPART \end{array} \right]_{\pi} \triangleright \left[\begin{array}{c} uNUM \\ | \\ uPL \end{array} \right]_{\#} \right]$$

- E.g., the person probe will interact & agree with all DPs that have a PERS feature, but will be satisfied only by participant DPs.

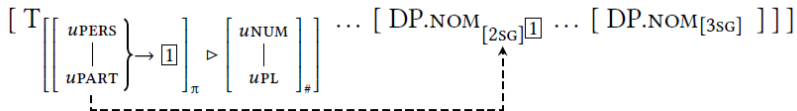
- (7) **Feature gluttony (FG)** is a situation when a single probe P has entered Agree with more than one DP and thus copied more than one feature set from them.
- The probe will agree with the closest DP which matches *some* of its segments (i.e., overlap between the unchecked segments on the probe and the segments of the goal is sufficient).
 - The feature copying step is *coarse* in the sense that the entire feature geometry of a DP is copied, even if only a segment of it undergoes Agree.
 - If there are remaining segments that are not matched, the probe is not satisfied (Deal 2015), and *the remaining segments* of the probe continue probing.

Illustration:

- (8) Du bist Martin. ✓ 2 > 3
 you.NOM be.2SG Martin.NOM
 ‘You are Martin.’

- The first DP that the probe interacts with (2SG) satisfies it
 \Rightarrow *no feature gluttony*

π -Agree



Nongluttonous π -probe

$$\pi = \left\{ \left[\begin{array}{c} \text{PERS} \\ | \\ \text{PART} \\ | \\ \text{ADDR} \end{array} \right] \boxed{1} \right\} \rightarrow \text{VI: bist (2SG)}$$

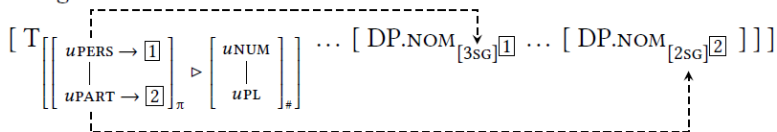
- (9) *? Martin ist du. * 3 > 2
 Martin.NOM be.3SG you.NOM

This structure gives rise to *double agreement*:

- u_{PERS} agrees with the higher 3 SG DP, but the probe is not satisfied yet, and u_{PART} agrees with the lower 2SG DP

⇒ *feature gluttony*

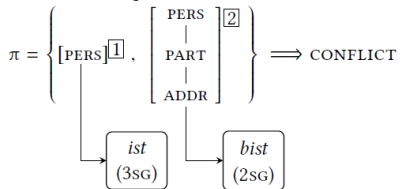
π -Agree



Feature Gluttony (Coon & Keine 2020)

- The feature bundles of the two DPs are copied over onto π , leading to a problem of morphological realization:

Gluttonous π -probe



- Two person bundles have conflicting VI demands, and only a single VI may be inserted into T.
 - \Rightarrow Vocabulary insertion is unable to pick a VI for this probe, leading to *ineffability*.

Feature Gluttony for Algonquian

What is the same:

- There is a probe (Voice) that can agree with several DPs at the same time, creating a gluttonous configuration.

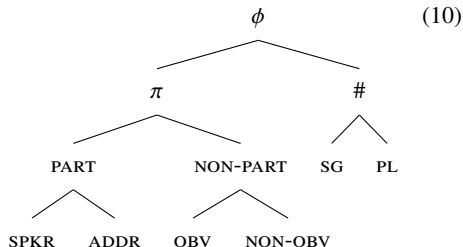
What is different:

- There is a special morpheme (inverse marker) that can spell-out Feature Gluttony in Passamaquoddy.
⇒ *no ungrammaticality arises*
- Position of the probe: the probe is not above the two DPs, but is *sandwiched between the two DPs*. Voice first looks down to interact with the object, and then (if still unsatisfied) — up to interact with the subject.
⇒ *object agreement in the absence of FG*
- What the probe is searching for: Voice probe in Passamaquoddy is searching for *an obviative non-participant DP*.

Feature Gluttony for Algonquian

Analyzing Passamaquoddy's direct/inverse agreement

Assumptions about **feature geometry**:



Inverse marker

oku / oq \Rightarrow { $\{\pi\}$, $\{\pi\}$ }

an underspecified portmanteau that occurs when the probe has agreed with two DPs and created a feature gluttony

Assumptions about **the Voice probe**:

(11) **Independent Probe**



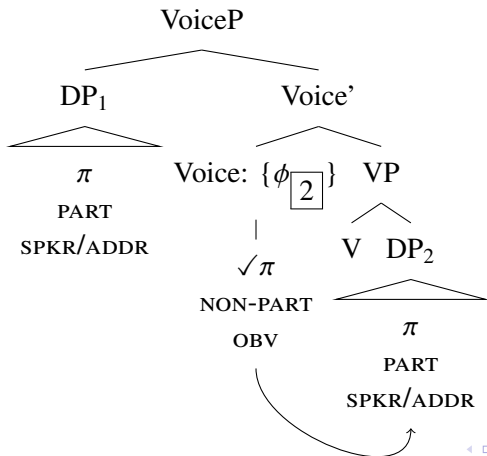
(12) **Conjunct Probe**



Feature Gluttony for Algonquian

- **Direct in Independent:** PART + PART, {PART, 3}, and {3,4} combinations. Among the features the Probe is searching for, the features of the subject are a subset of the features of the object.

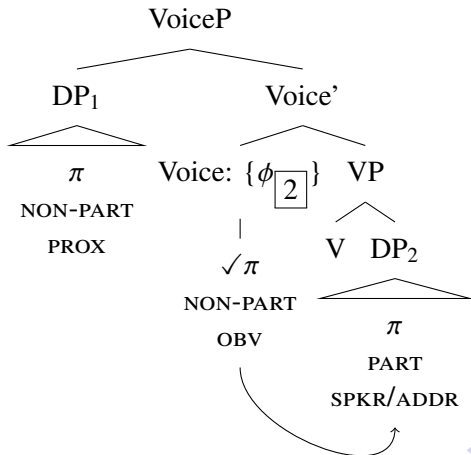
(13) **Direct in {PART + PART}**



Feature Gluttony for Algonquian

Inverse in Independent {3, PART} combinations and {4,3}. Among the features the Probe is searching for, the features of the object are a subset of the features of the subject.

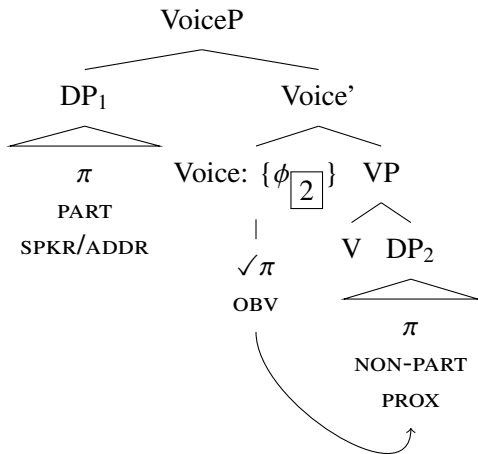
(16) **Inverse in {3, PART}, Step 1**



Feature Gluttony for Algonquian

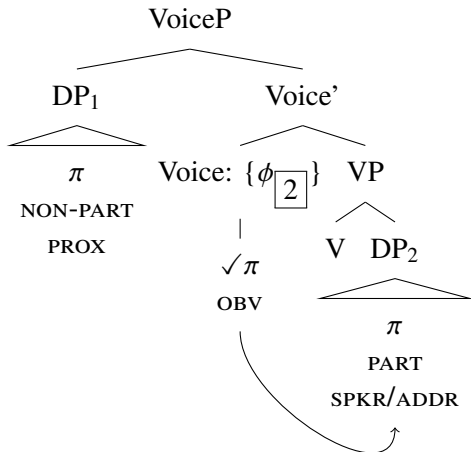
- **The Conjunct** is different from Independent only in that proximate 3rd person DPs and PART DPs become equally ranked.

(20) **Direct** in {PART, 3}



Feature Gluttony for Algonquian

(21) **Direct** in {3, PART}



- Removing the NON-PART segment from the probe results in equality of participant and proximate non-participant DPs: both kinds of DPs can satisfy π segment, neither can satisfy OBV.

- ★ An independently motivated mechanism of creating hierarchy effects—Feature Gluttony (Coon & Keine 2020)—can account for direct/inverse agreement in Passamaquoddy.

⇒ there is no need for hierarchies as independent objects

⇒ there is no need for an Algonquian-specific impoverishment rule (Oxford 2019)

- ★ The departures we've made are independently expected parameters of variation:
 - the placement of the probe (*Voice vs T*);
 - the features the probe searches for (*non-participant obviatives vs participants*)

Some open questions:

- How should variation across Algonquian languages in direct/inverse marking be derived?
- How can we derive the complementary distribution of inverse markers and portmanteaus in the Conjunct order?
- Passamaquoddy has another hierarchy effect that has to do with disruptability of portmanteaus in Conjunct. Can this be accounted for by FG as well?
- What are the limits of the FG-approach to hierarchy effects? What hierarchy effects can it *not* derive?

Thank you for your attention!

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- Oxford, Will. 2014. Variation in TA theme signs. Presentation at *the 46th Algonquian Conference*, Uncasville, Connecticut.
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Appendix: Agreement patterns (Independent)

PART + PART	Form	Translation
{1, 2}	k-tokom- ol	I hit you (Sg).
{11, 2}	k-tokom- ol -pon	We (excl.) hit you (Sg).
{1, 22}	k-tokom- ol -pa	I hit you (Pl).
{11, 22}	k-tokom- ol -pon	We (excl.) hit you (Pl).
{2, 1}	k-tokom- i	You (Sg) hit me.
{2, 11}	k-tokom- i -pon	You (Sg) hit us (excl).
{22, 1}	k-tokom- i -pa	You (Pl) hit me.
{22, 11}	k-tokom- i -pon	You (Pl) hit us (excl).

Table: Direct in Independent PART & PART configurations

Appendix: Agreement patterns (Independent)

{PART, 3}	Form	Translation
{1, 3}	n-tokom- a	I hit her / him.
{11, 3}	n-tokom- a-n	We (excl.) hit her / him.
{1, 33}	n-tokom- a-k	I hit them.
{11, 33}	n-tokom- a-nnu-k	We (excl.) hit them.
{12, 3}	k-tokom- a-n	We (excl.) hit her / him.
{12, 33}	k-tokom- a-nnu-k	We (incl.) hit them.
{2, 3}	k-tokom- a	You (Sg) hit her / him.
{22, 3}	k-tokom- a-wa	You (Pl) hit her / him.
{2, 33}	k-tokom- a-k	You (Sg) hit them.
{22, 33}	k-tokom- a-wa-k	You (Pl) hit them.

Table: Direct in Independent {PART, 3} configurations

Appendix: Agreement patterns (Independent)

{3, 4}	Form	Translation
{3, 4}	'-tokom- a -l	(S)he (prox.) hits her / him (obv.).
{33, 4}	'-tokom- a -wa-l	They (prox.) hit her / him.
{3, 44}	'-tokom- a	(S)he (prox.) hits them (obv.).
{33, 44}	'-tokom- a -wa	They (prox.) hit them (obv.).

Table: Direct in Independent {3, 4} Configurations

{4,3}	Form	Translation
{4, 3}	'-tokom- oku -l	(S)he (obv.) hits her / him (prox.).
{4, 33}	'-tokom- oku -wa-l	(S)he (obv.) hits them (prox.).
{44, 3}	'-tokom- oku	They (obv.) hit her / him (prox.).
{44, 33}	'-tokom- oku -wa	They (obv.) hit them (prox.).

Table: Inverse in Independent {4, 3} Configurations

Appendix: Agreement patterns (Independent)

{3, PART}	Form	Translation
{3, 1}	n-tokom- oq	(S)he hits me.
{3, 11}	n-tokom- oku-n	(S)he hits us (excl.)
{33, 1}	n-tokom- oku-k	They hit me.
{33, 11}	n-tokom- oku-nnu-k	They hit us (excl.).
{3, 12}	k-tokom- oku-n	(S)he hits us (incl.).
{33, 12}	k-tokom- oku-nnu-k	They hit us (incl.).
{3, 2}	k-tokom- oq	(S)he hits you (Sg).
{3, 22}	k-tokom- oku-wa	(S)he hits you (Pl).
{33, 2}	k-tokom- oku-k	They hit you (Sg).
{33, 22}	k-tokom- oku-wa-k	They hit you (Pl).

Table: Inverse in Independent {3, PART} Configurations