Stable and unstable person features: A structural account

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Empirical observation

Person features show an **asymmetry** in their **diachronic development**:

- in personal pronouns and possessives forms, person features tend to be **stable**, *i.e.* pronominal and possessive paradigms show diachronically comparable partitions;
- in demonstrative forms, person features can undergo a **reorganisation** which leads to diachronically different partitions.

Pronouns & possessives *vs* demonstratives I

Personal pronouns (1) **& possessives** (2)**: no featural reorganisation** → in Romance: stably ternary = they contrastively encode three persons.

(1) a. Personal pronouns

Before	1	2	3
After	1	2	3

b. Latin > Galician (Dubert & Galves 2016, 420)

Latin	ego	tu	(ille)
Galician	eu	ti	el

(2) a. Possessives

Before	1.POSS	2.POSS	3.POSS
After	1.POSS	2.POSS	3.POSS

b. Latin > Italian

Latin	meus	tuus	suus
Italian	mio	tuo	suo

Pronouns & possessives *vs* demonstratives II

Demonstrative systems: featural reorganisation → in Romance: original ternary systems frequently evolve into participant-based (3) or into speaker-based binary systems (4):

(3) a. Demonstratives (participant-based)

Before	near 1	near 2	far from 1/2
After	near 1/2		far from 1/2

b. Catalan (Ledgeway & Smith 2016, 886, 892)

Cat/1	aquest	aqueix	aquell
Cat/2	aquest		aquell

(4) a. Demonstratives (speaker-based)

Before	near 1	near 2	far from 1/2
After	near 1		far from 1

b. Rioplatense Spanish (A. Saab, *p.c.*)

RS/1	este	ese	aquel
RS/2	este		ese

Proposal

The diachronic asymmetry can be derived **structurally**, via the architecture of person features in indexical forms.

Main ingredients:

- Harbour (2016)'s person system;
- derivations for the different person indexicals;
- Polinsky (2018)'s intuition that stability is linked to structural salience.

→ Person features are only structurally salient in personal pronouns and in the indexical part of possessives (stable), but not in the indexical part of demonstratives (unstable).

Disclaimers

- **Semantics of person**, not its morphological exponents: person paradigms do show morphological change (e.g. loss of number and gender features, lexical variation).
- Main focus: forms in which **person features are interpretable and valued**, i.e. excluding all agreement forms.
- Empirical domain:
  - **diachrony** = Romance data (Jungbluth & Da Milano 2015 and Ledgeway & Maiden 2016; cf. there for full overviews);
  - **contact** = APiCS (*Atlas of Pidgin and Creole Language Structures*, Michaelis et al. 2013).

Roadmap

- Person indexicals
  - Personal pronouns
  - Possessives
  - Demonstratives

- (In)stability: A structural account

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Personal pronouns: Diachrony and contact I

Personal pronouns in Romance languages retained the ternary partition of deictic space from Latin → no featural reorganisation:

(5) Personal pronouns in diachrony (32/32)

Before	1	2	3
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(5) Personal pronouns in diachrony (32/32)

Before	1	2	3
After	1	2	3

Personal pronouns in pidgins/creoles mostly retain their major lexifiers' partitions [*APiCS* 15, revised] → no reorganisation, but for:

- **6/74 varieties**: different values for **clusivity** (5 lost, 1 acquired).
- (3/74: compositional clusivity; 8/74: person syncretism [*APiCS* 16]).

(6) a. Personal pronouns in the *APiCS* I (62/74)

Before	1	2	3
After	1	2	3

b. Personal pronouns in the *APiCS* II (3/74)

Before	1EXCL	1INCL	2	3
After	1EXCL	1INCL	2	3

Personal pronouns: Diachrony and contact II

Wider typological investigation: Nichols 1992:

- the inclusive/exclusive opposition is very **stable genetically** (and slightly less so areally);
- only attested examples of **instability** = linked to **contact** (cf. also Siewierska 2004, 7.3 & references therein):
  - tripartition > quadripartition: Central Khoisan < Southern Khoisan; Numic & Washo < Penutian; Kwaza < Tupi-Guarani; Gujarati, Marathi & Sindhi < Dravidian Ls; Aneêm < Austronesian Ls; Gimira, Amaaro & Dasenech (Ethiopian Omotic-Cushitic) < Nilo-Saharian Ls;
  - quadripartition > tripartition: Warlpiri (younger speakers).

Personal pronouns: Generalisations

The indexical value of personal pronouns:

- is stable in diachrony and
- tends to be remarkably stable in contact situations (limited examples of switches between tri- and quadripartitions, but no reduction is attested).

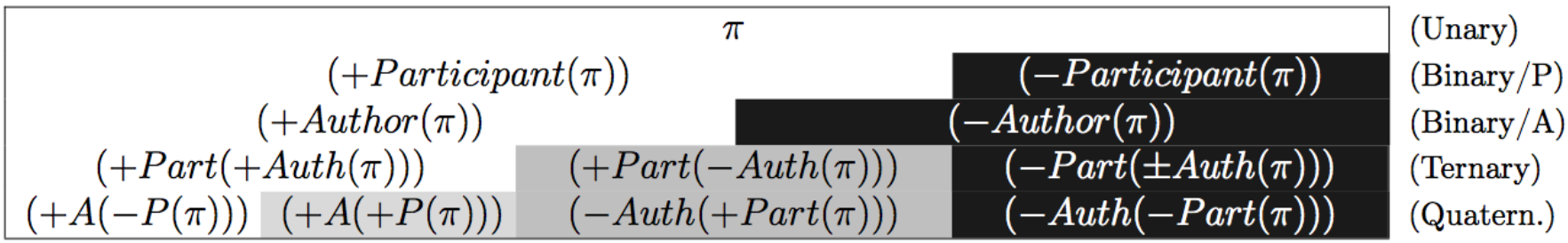
Person features: The system

Cf. Harbour 2016, with minor revisions.

- **Ontology** (i.e. discourse-related atoms): speaker = i, hearer = u, other = o.
- Accessed by the grammar *via* two binary features, [±A] and [±P], that can (successively) apply to the categorial head π:
  - **categorial head**: $[\![\pi]\!] = \{i_o, iu_o, u_o, o_o\}$
  - **two features**:
    a. $[\![\text{Author}]\!] = \{i\}$ → [A]
    b. $[\![\text{Participant}]\!] = \{i, iu, u\}$ → [P]
  - each feature must have either of **two values**:
    a. + (action: disjoint addition)
    b. – (action: joint subtraction)

Personal pronouns: Derivation

The two features can (successively) compose with π, to partition it:



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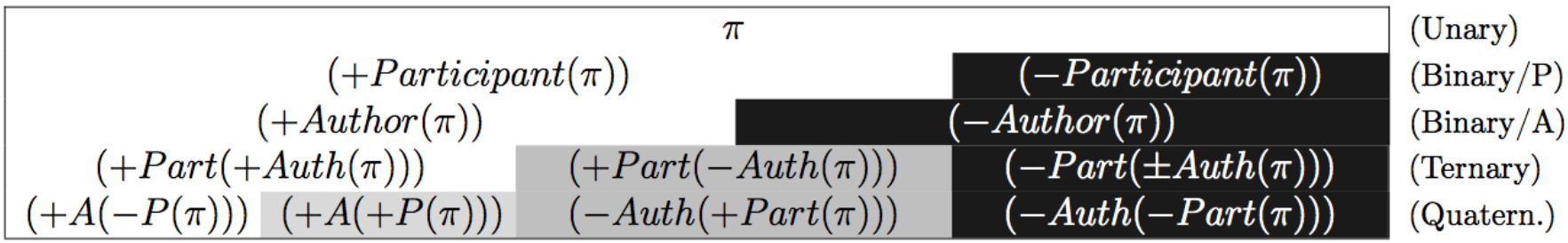
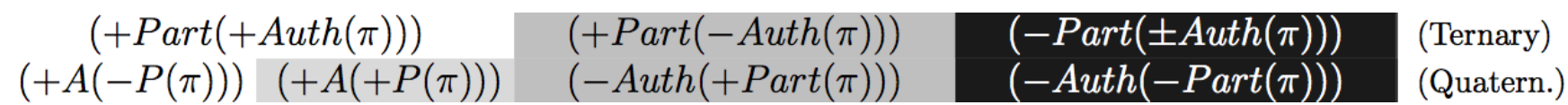


Pronouns: Generalisations:

- ✓ no reductions to bi-/monopartitions → personal pronouns derived directly by the successive composition of **both person features** with π;
- ✓ tri- > quadripartitions, or quadri- > tripartitions → changes in the **composition ordering**.



Roadmap

- Person indexicals
  - Personal pronouns
  - Possessives
  - Demonstratives
- (In)stability: A structural account

Possessives: Diachrony and contact

Possessive forms in Romance languages retained the ternary partition of deictic space from Latin → no featural reorganisation:

(7) Possessive forms in diachrony (23/23)

Before	1.POSS	2.POSS	3.POSS
After	1.POSS	2.POSS	3.POSS

- **Analytic possessives** = P+pronoun (PPs): available, but restricted.

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Possessive forms in pidgins/creoles tend to retain the major lexifiers' deictic structure (cf. personal pronouns) [APiCS 37, revisited]:

	Possessive adjectives (*APiCS*: 76 varieties)	Only	Option	Tot.
1.	Unmarked personal pron. [type: *mi* 'my', Beliz. C.]	8	38	46
2.	P+pronoun (analytic) [type: *fu mi* 'my', Beliz. C.]	**12**	34	46
3.	Genitive pron. (synthetic) [type: *ma* 'my', Beliz. C.]	9	**32**	41

Possessives: Generalisations

- The indexical value of possessive forms does not typically undergo diachronic or contact-induced change (cf. personal pronouns)
  - → derive it like personal pronouns = via composition of [±A] and [±P] with π.
- Morphological variation (≠ personal pronouns): pronominal possessors can be expressed as:
  - PPs (P+personal pronoun), type: *fu mi*;
  - synthetic (genitive) forms, type: *ma*;
  - unmarked personal pronoun, type: *mi*.

Possessives: Derivation

The indexical base of possessives is an inherently Case-marked personal pronoun (reversing Caha (2009)'s rationale).

- Indexical base derived as personal pronouns → diachronic symmetry.
- Inherent Case: underlyingly construed as a PP (Řezáč 2008).

→ **Indexical base of possessives = PP** (P+pronoun):

- spelled out as such: P+pronoun (analytic), type: *fu mi*;
- spelled out synthetically: genitive possessive forms (synthetic; & possibly DP-internal agreement slot), type: *ma*;
- spelled out synthetically + syncretism: unmarked personal pronouns, type: *mi*.

$[_{PP}\ \mathbf{P}\ (+Part(+Auth(\pi)))]$		$[_{PP}\ \mathbf{P}\ (+Part(-Auth(\pi)))]$	$[_{PP}\ \mathbf{P}\ (-Part(\pm Auth(\pi)))]$
$[_{PP}\ \mathbf{P}\ (+A(-P(\pi)))]$	$[_{PP}\ \mathbf{P}\ (+A(+P(\pi)))]$	$[_{PP}\ \mathbf{P}\ (-Auth(+Part(\pi)))]$	$[_{PP}\ \mathbf{P}\ (-Auth(-Part(\pi)))]$

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Demonstratives

Exophoric demonstratives → locate objects/areas in the external world w.r.t. **deictic centre**.

According to the deictic centre(s) involved:

speaker	hea	rer	other → Binary system, speaker-oriented
speaker	hearer		other → Binary system, participant-oriented
speaker	hearer		other → Ternary system

Assumptions:

- discourse participants as deictic centres: demonstratives systems are primarily defined by **person features**;
- demonstratives express a **spatial relation** to person, rather than person.

Demonstratives: Diachrony

Some Romance **ternary** demonstrative systems evolved **into** participant-based (8) or speaker-based **binary** systems (9):

(8) **Participant-based** binary dems (53/239) [45/153 nom.; 8/86 adv.]
e.g. Tarantino (demonstrative adj., Ledgeway & Smith 2016, 886)

Tar/1	sto [near 1]	SSO [near 2]	quid [far from 1/2]
Tar/2	sto [near 1/2]		quid [far from 1/2]

(9) **Speaker-based** binary dems (72/239) [37/153 nom.; 35/86 adv.]
e.g. Occitan (demonstrative adv., Ledgeway & Smith 2016, 895)

Occ/1	ací [near 1]	aquí [near 2]	alai [far from 1/2]
Occ/2	ací [near 1]	aquí [far from 1]	

Instability of the **hearer-related domain**:

- binary/P same exponent as the speaker-related one;
- binary/A no longer consistently referred to by only one form.

Demonstratives: Contact

The demonstrative systems of pidgins'/creoles' major lexifiers show different patterns of evolution [*APiCS* 33, revisited]:

Nominal demonstratives, 73 contact varieties

Major lexifier type (one per contact variety)	Same contrasts (n=46)	More contrasts (n=3)	Fewer contrasts (n=24)
3-way contrast (n=26)	5 [19.23%]	—	**21 [80.77%]**
2-way contrast (n=38)	**32 [84.21%]**	3 [7.89%]	3 [7.89%]
No contrast (n=9)	**9 [100%]**	—	—

Adverbial demonstratives, 61 contact varieties

Major lexifier type (one per contact variety)	Same contrasts (n=39)	More contrasts (n=2)	Fewer contrasts (n=20)
3-way contrast (n=24)	4 [16.67%]	—	**20 [83.33%]**
2-way contrast (n=37)	**34 [91.89%]**	2 [5.41%]	1 [2.70%]

→ **Ternary > speaker-based binary systems.**

Demonstratives: Generalisations

✓ Contrary to personal pronouns and possessives, demonstrative forms can show a **reduction of person features**:

- reduction of ternary systems to (mostly) binary ones, *vs* stability of binary and unary systems;
- instability of the hearer-related domain.

Demonstratives: Derivation I

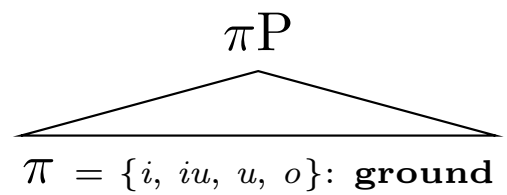
Indexical part of demonstratives: **two-step** functional application of person features to π:

1. a space function, χ, applies to π: define the discourse space;
2. [±A]/[±P] can apply to the result of ($\chi(\pi)$): yield a subregion.

→ Cf. Svenonius 2006 *seqq.* for **spatial Ps** with AxPartP and Zwarts 1997 *seqq.* for vectors.

Demonstratives: Derivation II

'This/here' = (x)/PLACE near i in the space of π.



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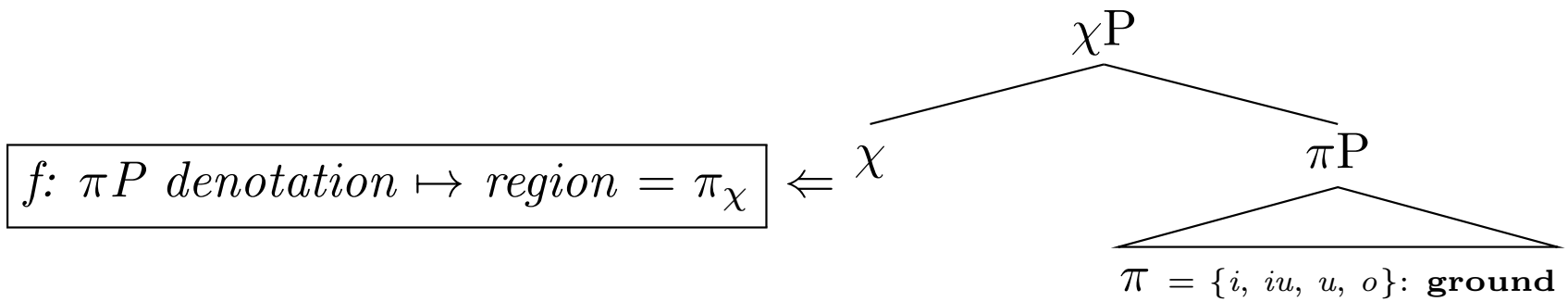

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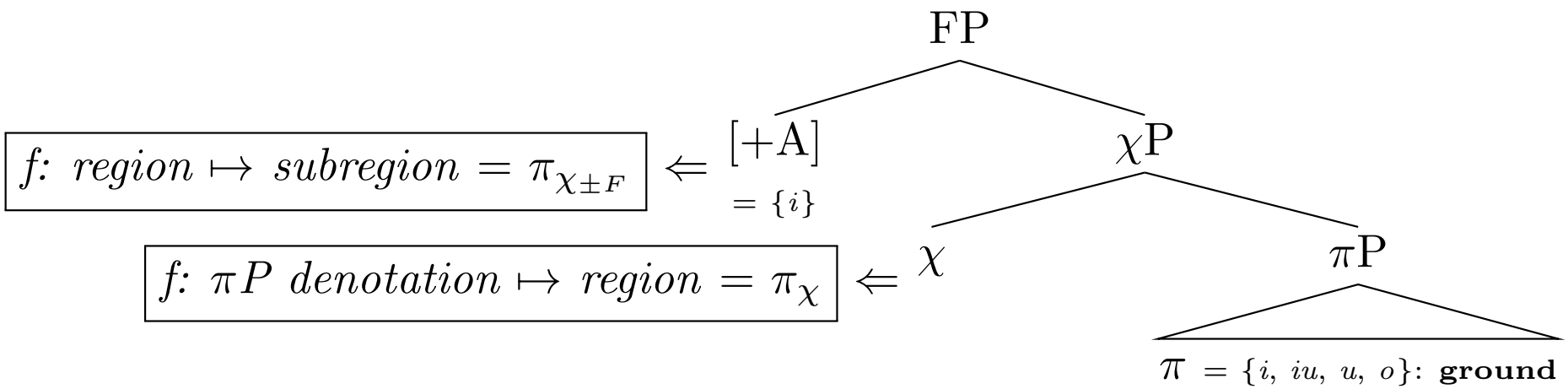

Full featural schema:

near 1		far from 1	=	$(+A(\chi(\pi)))$	$(-A(\chi(\pi)))$
near 1/2		far from 1/2	=	$(+P(\chi(\pi)))$	$(-P(\chi(\pi)))$
near 1	near 2	far from 1/2	=	$(+P(+A(\chi(\pi))))$ $(+P(-A(\chi(\pi))))$	$(+P(\pm A(\chi(\pi))))$

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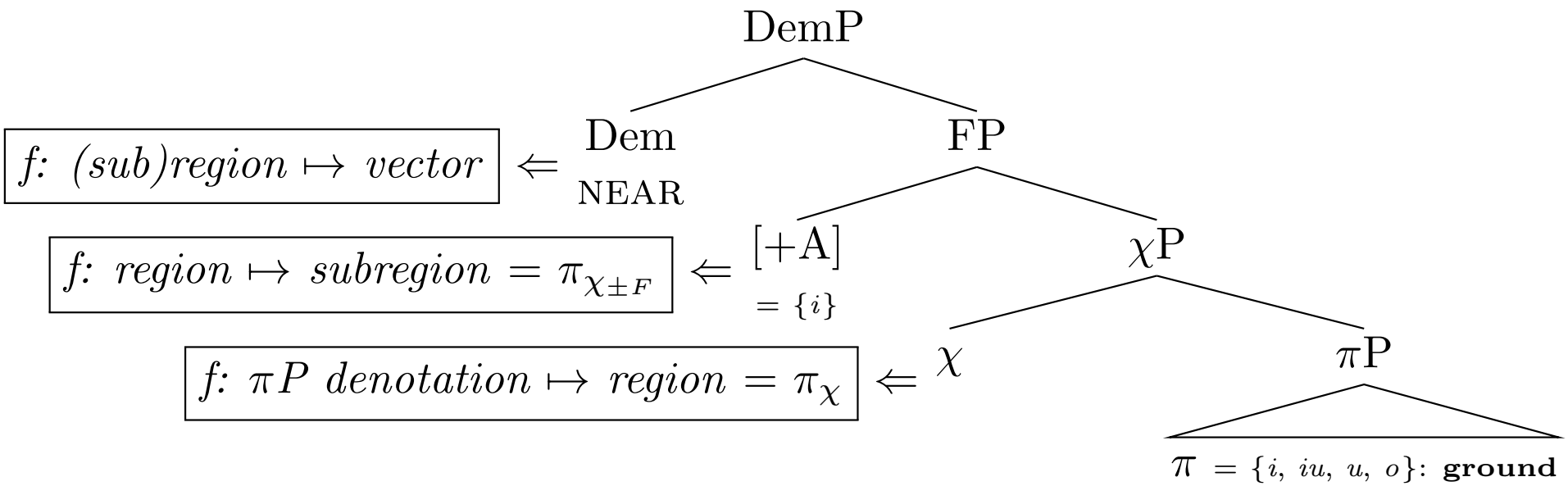

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Proposal

Recap:

- Personal pronouns = $(\pm F(\pi))$ (cf. Harbour 2016);
- indexical base of possessive forms = $[_{\text{PP}}\ \mathbf{P}\ (\pm F(\pi))]$;
- indexical base of demonstrative forms = $(\pm F(\boldsymbol{\chi}(\pi)))$.

→ Evidence: **agreement** facts (no agreement with person (number, gender) features in the indexical base of possessives & demonstratives).

Diachronic asymmetry: person features = **stable** in personal pronouns & possessives *vs* **unstable** in demonstrative forms.

- **Proposal: (in)stability ↔ structural salience.**

  The most salient (→ stable) feature is the **first to compose** with the root of its functional sequence.

Stability and structural salience

Link inspired by Polinsky (2018, 63-65): heritage speakers:

- ✓ retain elements at the **top** of the relevant domains ('salient')
- × lose elements that occupy **lower** projections ('non-salient') in the same domains.

- Elements at the top are typically **indexical** (idea: indexicality contributes to the salience of linguistic elements).
- Structural formalisation: "sensitivity to the topmost projection of a domain" (Polinsky 2018, 63).

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- Structural formalisation: "sensitivity to the topmost projection of a domain" (Polinsky 2018, 63).

→ Claim revisited here: **a feature is salient if it is the first to apply to the root of its functional sequence**.

Personal pronouns and possessives

Personal pronouns and the indexical base of possessive forms are **straightforwardly** derived by the composition of the person features with π.

$(+Part(+Auth(\pi)))$		$(+Part(-Auth(\pi)))$	$(-Part(\pm Auth(\pi)))$
$(+A(-P(\pi)))$	$(+A(+P(\pi)))$	$(-Auth(+Part(\pi)))$	$(-Auth(-Part(\pi)))$

$[_{PP}\ \mathbf{P}\ (+Part(+Auth(\pi)))]$		$[_{PP}\ \mathbf{P}\ (+Part(-Auth(\pi)))]$	$[_{PP}\ \mathbf{P}\ (-Part(\pm Auth(\pi)))]$
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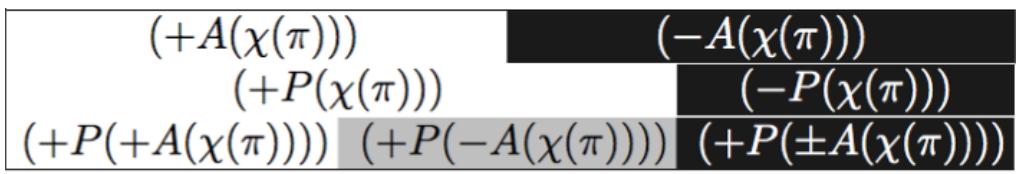
(10) $(\pm \mathrm{F}\ (\pi))$

→ **Salient**: π's featural content is **stable**/less prone to change.

Demonstratives

The indexical base of demonstrative forms is derived by a **two-step** functional application:

– person features (can) apply to π only after χ has applied to it (region $\mapsto$ sub-region).



(11) $(\pm \mathrm{F}\ (\boldsymbol{\chi}\ (\pi)))$

→ Person features in demonstrative forms are not the first to compose with π, i.e. **not** structurally **salient** → π's person featural content is **unstable**/more prone to change.

Implementation

Due to the increase in complexity (recursion of compositions), one (or more) **non-salient feature(s) can be delinked** from their functional sequence.

- In **ternary** demonstrative systems, one (or more) person features can be delinked from the $(\chi(\pi))$ sequence.
- However, those features are still available in the person pronominal and possessive systems of the same language, where they directly compose with π.
  - Principled explanation for the asymmetry.
  - Delinked features are still available: they can be re-linked.

Where and how

✓ Structural considerations define where change can happen → demonstratives, rather than personal pronouns and possessives.

But how? Formal markedness can partially predict the reorganisation patterns.

- Recall the generalisations on change:
  - ternary systems are the most unstable ones ↔ how many **active features**?
  - the hearer-related domain is the most unstable one ↔ **uniform** or **non-uniform** feature values?

Conclusions

- Diachronic asymmetry: person features in personal pronouns and possessives *vs* demonstratives:
  - diachronic and contact data;
  - derivation of person indexicals:
    i. personal pronouns = $(\pm F(\pi))$ (cf. Harbour 2016);
    ii. indexical base of possessive forms = $[_{\text{PP}}\ \mathbf{P}\ (\pm F(\pi))]$;
    iii. indexical base of demonstrative forms = $(\pm F(\boldsymbol{\chi}(\pi)))$.

Conclusions

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  - diachronic and contact data;
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    i. personal pronouns = $(\pm F(\pi))$ (cf. Harbour 2016);
    ii. indexical base of possessive forms = $[_{\text{PP}}\ \mathbf{P}\ (\pm F(\pi))]$;
    iii. indexical base of demonstrative forms = $(\pm F(\boldsymbol{\chi}(\pi)))$.
- Structure and salience (first merge) & salience and stability (cf. Polinsky 2018) → person features in personal pronouns and possessives are structurally salient = stable; *vs* in demonstratives are not structurally salient = unstable (possibly delinked from the $(\chi(\pi))$ functional sequence).

Thank you!

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