

# Hidden deficiency

On the structure of Slovenian clitic, strong, and prepositional pronouns

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## 1 Introduction

Theories of pronoun types often associate different surface pronoun forms to different underlying morpho-syntactic structures with different semantic properties:

- Slovenian presents an interesting problem for such theories: it has pronouns that appear *strong* in their surface form, but pattern with *clitic pronouns* in terms of their interpretation
- I develop a theory of pronoun type competition based on fine-grained structural differences that derives the form-meaning mismatches solely from syntactic differences

## 2 Slovenian pronoun types and binding/animacy

Overt pronouns generally do not allow sloppy identity readings:

- |     |   |                 |
|-----|---|-----------------|
| (1) | VP-ELLIPSIS: John <sub>i</sub> scratched his <sub>i</sub> arm and Mary <b>did</b> too.            | (Ross 1967:348) |
|     | a. ✓ ... and Mary scratched John's arm  | STRICT IDENTITY |
|     | b. ✓ ... and Mary <sub>i</sub> scratched her <sub>i</sub> arm                                     | SLOPPY IDENTITY |
| (2) | OVERT PRONOUN: John <sub>i</sub> scratched his <sub>i</sub> arm and Mary scratched <b>it</b> too. |                 |
|     | a. ✓ ... and Mary scratched John's arm  | STRICT IDENTITY |
|     | b. ✗ ... and Mary <sub>i</sub> scratched her <sub>i</sub> arm                                     | SLOPPY IDENTITY |

But this has been challenged by cross-linguistic data (Runić 2014, Bošković 2018):

- In Bosnian/Croatian/Serbian, *clitic pronouns* allow both strict and sloppy identity readings, while *strong pronouns* retain the familiar ban on sloppy readings
- The same split between clitic and strong pronouns is also observed in Slovenian.

## 2.1 The binding asymmetry between clitic and strong pronouns

- (3) a. STRONG PRONOUN  $\Rightarrow$  ONLY STRICT IDENTITY:  
 Pero ceni svojega očeta, in Maja **njega** tudi ceni  
 Pero values self's.M.ACC father.ACC and Maja him.ACC also values  
 'Pero<sub>i</sub> values his<sub>i</sub> father and Maja<sub>k</sub> values **his<sub>i</sub> father** too.'
- b. CLITIC PRONOUN  $\Rightarrow$  STRICT AND SLOPPY IDENTITY:  
 Pero ceni svojega očeta, in Maja **ga** tudi ceni  
 Pero values self's.M.ACC father.ACC and Maja 3.M.ACC also values  
 'Pero<sub>i</sub> values his<sub>i</sub> father and Maja<sub>k</sub> values {**his<sub>i</sub> father / her<sub>k</sub> father**} too.'

## 2.2 The animacy asymmetry between clitic and strong pronouns

- (4) a. STRONG PRONOUN  $\Rightarrow$  MUST BE ANIMATE:  
 Pero pospravlja svojo sobo, in Maja **#njo** tudi pospravlja  
 Pero tidy.up self's.F.ACC room.F.ACC and Maja her.ACC also tidy.up  
 'Pero is tidying up his room and Maja is tidying **#her** up too.'
- b. CLITIC PRONOUN  $\Rightarrow$  CAN BE INANIMATE:  
 Pero pospravlja svojo sobo, in Maja **jo** tudi pospravlja  
 Pero tidy.up self's.F.ACC room.F.ACC and Maja 3.F.ACC also tidy.up  
 'Pero is tidying up his room and Maja is tidying **it** up too.'

## 2.3 Strong-only pronouns

Strong pronouns without a weak counterpart pattern with clitics in both respects:

- (5) STRONG-ONLY PRONOUN  $\Rightarrow$  STRICT/SLOPPY & CAN BE INANIMATE:  
 Pero se igra s svojimi Legicami in Maja se tudi igra z **njimi**.  
 Pero SE play with self's.PL.INST Legos.INST and Maja SE also play with them.INST  
 'Pero<sub>i</sub> is playing with his<sub>i</sub> Legos and Maja<sub>k</sub> is playing with {**his<sub>i</sub> Legos / her<sub>k</sub> Legos**} too.'

## 2.4 Prepositional pronouns

Strong pronouns may have “reduced” counterparts in PPs distinct from clitic forms—henceforth *P-pronouns*—which also pattern with clitic pronouns in terms of interpretation:

- (6) a. STRONG PRONOUN  $\Rightarrow$  ONLY STRICT IDENTITY:  
 Pero misli na svojega očeta, in Maja tudi misli na **njéga**.  
 Pero think on self's.M.ACC father.ACC and Maja also think on him.ACC  
 'Pero<sub>i</sub> is thinking of his<sub>i</sub> father and Maja<sub>k</sub> is thinking of **his<sub>i</sub> father** too.'
- b. P-PRONOUN  $\Rightarrow$  STRICT AND SLOPPY IDENTITY:  
 Pero misli na svojega očeta, in Maja tudi misli **ná\_nj**.  
 Pero think on self's.M.ACC father.ACC and Maja also think on\_him.ACC  
 'Pero<sub>i</sub> is thinking of his<sub>i</sub> father and Maja<sub>k</sub> is thinking of {**his<sub>i</sub> father / her<sub>k</sub> father**} too.'

(7) a. STRONG PRONOUN  $\Rightarrow$  MUST BE ANIMATE:

Pero je padel na (svojo) rit, in Maja je tudi padla na #njó.  
 Pero is fell on (self's.F.ACC) butt.F.ACC and Maja is also fell.F on her.ACC  
 'Pero fell on his butt and Maja also fell on #her.'

b. P-PRONOUN  $\Rightarrow$  CAN BE INANIMATE:

Pero je padel na (svojo) rit, in Maja je tudi padla ná\_njo.  
 Pero is fell on (self's.F.ACC) butt.F.ACC and Maja is also fell.F on\_her.ACC  
 'Pero fell on his butt and Maja also fell on it.'

## 2.5 Summary of the pattern

PRONOUN	STRICT IDENTITY	SLOPPY IDENTITY	ANIMATE	INANIMATE
clitic	✓	✓	✓	✓
P-pronoun	✓	✓	✓	✓
strong-only	✓	✓	✓	✓
strong with counterpart	✓	X	✓	X

Table 1: Summary of pronoun type distribution in Slovenian

Why this is important:

1. Pronouns other than clitic pronouns can get sloppy and inanimate readings
2. Even strong pronouns can get sloppy and inanimate readings

**Issues:**

- (i) Pronouns *rigid in form* (strong-only) may be *semantically flexible*
- (ii) The interpretation of pronouns appears to be determined based on prosodic factors:

***Descriptive generalization***

Only pronouns that ...

- (a) cannot be stressed, or
  - (b) do not have unstressed counterparts in the relevant context
- ... license sloppy readings and inanimate referents.

I propose an analysis of Slovenian pronouns where the apparent modularity issue in (ii) can be resolved entirely in the syntax via a fine-grained approach to pronoun structure.

### 3 A closer look at Slovenian pronoun types

#### 3.1 Clitic pronouns

Clitic pronouns (which are 2nd position clitics) exist for ACC, GEN, and DAT case:

	REFL	SINGULAR				PLURAL			DUAL		
		1P	2P	3P.M	3P.F	1P	2P	3P	1P	2P	3P
ACC	se	me	te	ga	jo	nas	vas	jih	naju	vaju	ju
GEN	se	me	te	ga	je	nas	vas	jih	naju	vaju	ju
DAT	si	mi	ti	mu	ji	nam	vam	jim	nama	vama	jima
ACC	<b>sebe</b>	<b>mene</b>	<b>tebe</b>	<b>njega</b>	<b>njo</b>	nas	vas	<b>njih</b>	naju	vaju	<b>nju</b>
GEN	<b>sebe</b>	<b>mene</b>	<b>tebe</b>	<b>njega</b>	<b>nje</b>	nas	vas	<b>njih</b>	naju	vaju	<b>nju</b>
DAT	<b>sebi</b>	<b>meni</b>	<b>tebi</b>	<b>njemu</b>	<b>njej</b>	nam	vam	<b>njim</b>	nama	vama	<b>njima</b>

Table 2: Slovenian clitic vs. strong pronouns (distinctive morphemes in **boldface**)

#### 3.2 Strong-only pronouns

Clitic pronouns in Slovenian are disallowed as objects of PPs (cf. Abels 2003a,b)

- Whether a pronoun has a clitic counterpart is relative to the particular context
- Possibility of sloppy readings is also contextual: the same strong pronouns that disallow them outside PPs (8) allow them in PPs (9) (same for inanimate readings):

(8) a. STRONG PRONOUN  $\Rightarrow$  ONLY STRICT IDENTITY:

Pero pomaga svojim prijateljem in Maja tudi **njim** pomaga.  
 Pero help self's.PL.DAT friends.DAT and Maja also them.DAT help  
 'Pero<sub>i</sub> helps his<sub>i</sub> friends and Maja<sub>k</sub> helps **his<sub>i</sub> friends** too.'

b. CLITIC PRONOUN  $\Rightarrow$  STRICT AND SLOPPY IDENTITY:

Pero pomaga svojim prijateljem in Maja **jim** tudi pomaga.  
 Pero help self's.PL.DAT friends.DAT and Maja 3PL.DAT also help  
 'Pero<sub>i</sub> helps his<sub>i</sub> friends and Maja<sub>k</sub> helps {**his<sub>i</sub> friends** / **her<sub>k</sub> friends**} too.'

(9) STRONG-ONLY PRONOUN  $\Rightarrow$  STRICT AND SLOPPY IDENTITY:

Pero se vrača k svojim koreninam in Maja se tudi vrača k **njim**.  
 Pero SE return to self's.PL.DAT roots.DAT and Maja SE also return to them.DAT  
 'Pero<sub>i</sub> is going back to his<sub>i</sub> roots and Maja<sub>k</sub> is going back to {**?his<sub>i</sub> roots** / **her<sub>k</sub> roots**} too.'

In Slovenian, LOC and INST cases are only found in PPs, so LOC/INST pronouns are always strong:

- (10) a. Hodijo \*(ob) **njem**.  
 walk.PL beside him.LOC  
 'They are walking beside him.'
- b. Hodijo \*(z) **njim**.  
 walk.PL with him.INST  
 'They are walking with him.'

	SINGULAR					PLURAL			DUAL		
	REFL	1P	2P	3P.M	3P.F	1P	2P	3P	1P	2P	3P
LOC	<b>sebi</b>	<b>meni</b>	<b>tebi</b>	<b>njem(u)</b>	<b>njej</b>	nas	vas	<b>njih</b>	naju	vaju	<b>n(ji)ju</b>
INST	<b>sabo</b>	<b>mano</b>	<b>tabo</b>	<b>njim</b>	<b>njo</b>	nami	vami	<b>njimi</b>	nama	vama	<b>njima</b>

Table 3: Slovenian locative/instrumental pronouns (strong-only)

### 3.3 P-pronouns

Possible with: ‘na’ (*‘on/onto’*), ‘v/u’ (*‘in/into’*), and ‘za’ (*‘for’*); in some dialects/registers also with ‘pod’ (*‘under’*), ‘čez’ (*‘over’*), ‘pred’ (*‘before’*), but only exist in ACC case forms:

- (11) a. Padel sem **ná\_nj**.  
 fell.M am on\_him.ACC  
 ‘I fell on it/him.’
- b. Padel sem na **njéga**.  
 fell.M am on him.ACC  
 ‘I fell on *him*.’
- (12) a. \*Stal sem **ná\_nj(em)**.  
 stand.M am on\_him.LOC  
 ‘I was atanding on it/him.’
- b. Stal sem na **njém**.  
 stand.M am on him.LOC  
 ‘I was atanding on it/him.’

Additionally, they do not have 1/2P plural and dual forms:

	SINGULAR				PLURAL			DUAL		
REFL	1P	2P	3P.M	3P.F	1P	2P	3P	1P	2P	3P
ná_se	ná_me	ná_te	ná_nj	ná_njo			ná_nje			ná_nju
na sébe	na méne	na tébe	na njéga	na njó	na nás	na vás	na njh	na náju	na váju	na njú

Table 4: Slovenian P-pronouns vs. strong pronouns (‘on’+ ACC pronoun)

LF properties can not be localized to a single morphological property across pronouns:

PATTERN 1				PATTERN 3			
	STRONG	CLITIC	P-PRON.		STRONG	CLITIC	P-PRON.
3.M	<b>njé-ga</b>	ga	<b>ná-nj</b>	3.PL	<b>n-jh</b>	jih	<b>ná-nj-e</b>
PATTERN 2				PATTERN 4			
1.SG	<b>m-en-e</b>	m-e	<b>ná-m-e</b>	3.F	<b>n-jó</b>	jo	<b>ná-n-jo</b>
2.SG	<b>t-eb-e</b>	t-e	<b>ná-t-e</b>	3.DU	<b>n-jú</b>	ju	<b>ná-n-ju</b>
REFL	<b>s-eb-e</b>	s-e	<b>ná-s-e</b>				

Table 5: P-pronouns compared to strong/clitic pronouns

The only constant for P-pronouns is that P always bears stress:

PATTERN 1: clitic and P-pronoun have no morphemes in common;

PATTERN 2: clitic and P-pronoun are identical, apart from the P part;

PATTERN 3: inflection on a P-pronoun differs from the clitic/strong forms;

PATTERN 4: strong and P-pronoun are identical apart from stress.

There is no single morpheme we can blame for the LF split; the pronouns appear to be grouped into their respective class at LF based on idiosyncratic PF properties.

⇒ **Descriptive generalization:** Only pronouns that **(a)** cannot be stressed (clitic and P-pronouns) or **(b)** do not have an unstressed counterpart in the relevant context (strong-only pronouns) license sloppy readings and inanimate referents;

⇒ Unexpected from the perspective of the Y-model of grammar (Chomsky 1995).

### 3.4 Previous analyses or the strict/sloppy pronoun split

Both existing approaches to the phenomenon draw direct parallels to East Asian-style *argument ellipsis*, which can also license sloppy readings (see Whitman 1988, Otani and Whitman 1991, Tomioka 2003, Saito 2007, Sakamoto 2017, i.a.):

**Runić (2014):** Clitic pronouns that license sloppy readings are *property anaphora* of type  $\langle e, t \rangle$  (Tomioka 2003), but their strong counterparts are type  $e$ , attributed to focus:

- This does not explain the semantically flexible strong-only pronouns
- It also leaves the animacy restriction unexplained

**Bošković (2018):** Similar to the other approach, but sloppy reading is restricted to clitic-doubling configurations with an elided NP double of type  $\langle e, t \rangle$

- Does not explain sloppy readings with strong-only pronouns and P-pronouns
- It also leaves the animacy restriction unexplained

## 4 Analysis

The LF differences arise as a result of differences in the structural complexity of the different pronoun types (cf. Cardinaletti and Starke 1994, 1999, Déchaine and Wiltschko 2002, Patel-Grosz and Grosz 2017), where less structure entails greater semantic flexibility

- **However:** All pronouns in Slovenian have a corresponding competing structure, even strong-only pronouns, which appear to always have the same form at PF
- As a result, a pronoun that appears *strong*, may behave like a *clitic/P-pronoun*

## 4.1 Semantic behavior

### 4.1.1 Deriving semantically flexible pronouns

I adopt a Tomioka (2003)/Runić (2014)-style approach to sloppy identity pronouns:

- This analysis builds on Chierchia’s (1998) treatment of semantic differences between DP languages (like English) NP languages (like Slovenian);
- In the latter, bare NPs, of type  $\langle e, t \rangle$ , can function as arguments and are mapped to individual-type ( $e$ ) elements via type shifting semantic rules.

Tomioka (2003) proposes that Japanese null arguments, which license sloppy readings, are property anaphors of type  $\langle e, t \rangle$  and can shift to individual-type the same way

- Runić (2014) extends this to clitic pronouns in NP languages, and I will extend it to clitic, strong-only, and P-pronouns in Slovenian  
 $\Rightarrow$  We will see below why these three pronoun types form a natural class.

(13) STRICT IDENTITY READING (coreference):

- Pero<sub>1</sub> loves [his<sub>1</sub> father](=Jaka) and Maja<sub>2</sub> loves **him**(=Jaka) too
- Input LF: [TP Maja<sub>2</sub> [ 2 [VP t<sub>2</sub> loves [R<sub>4</sub> u<sub>5</sub>]]]]  
 ( $R$  is a relation type  $\langle e, \langle e, t \rangle \rangle$  or also just  $\langle e, t \rangle$ )
- $\llbracket u_5 \rrbracket^g = \text{Jaka}$  (where  $g(5) = \text{Jaka}$ )  
 $\llbracket R_4 \rrbracket^g = \lambda z. \lambda x. [x = z]$  (where  $g(4) = \lambda z. \lambda x. [x = z]$ )

(14) SLOPPY IDENTITY READING (binding into pronoun):

- Pero<sub>1</sub> loves his<sub>1</sub> father and Maja<sub>2</sub> loves **him**(=her<sub>2</sub> father) too
- Input LF: [TP Maja<sub>2</sub> [ 2 [VP t<sub>2</sub> loves [R<sub>3</sub> u<sub>2</sub>]]]]
- $\llbracket u_2 \rrbracket^g = \text{Maja}$  (where  $g(2) = \text{Maja}$ )  
 $\llbracket R_3 \rrbracket^g = \lambda z. \lambda x. [\text{father}(x)(y)]$  (where  $g(3) = \lambda y. \lambda x. [\text{father}(x)(y)]$ )

### 4.1.2 Deriving semantically rigid pronouns

Both demonstrative and rigid strong pronouns in Slovenian require a linguistic antecedent:

- (15) a. Če sem noseča, { **ga** } bom { **#njega** / **#tega** } obdržala.  
 if am pregnant 3.M.ACC will.1 him.ACC / DEM.M.ACC keep  
 ‘If I am pregnant, I will keep {**it** / **#him** / **#that child**}.’
- b. Če dobim otroka, { **ga** } bom { **njega** / **tega** } obdržala.  
 if get.1 child.M.ACC 3.M.ACC will.1 him.ACC / DEM.M.ACC keep  
 ‘If I get a child, I will keep {**it** / **him** / **that child**}.’

Patel-Grosz and Grosz (2017) extend Schwarz’s (2009) analysis of German *weak* vs. *strong definite articles* respectively to *personal* vs. *demonstrative pronouns*:<sup>1</sup>

- Demonstrative pronouns differ from personal ones in requiring an *anaphoric index*, imposing identity of the pronoun’s referent with a salient discourse referent;
- I adopt here Hanink (2017, 2018)’s reinterpretation of Schwarz (2009), which associates the anaphoric index to a dedicated syntactic head (*idx*).

I propose that all semantically rigid Slovenian pronouns (always strict and animate) are structurally complex, in that they are a personal pronoun dominated by an *idx* head:

$$(16) \quad \llbracket \text{idx}_k \rrbracket^g = \lambda x. [\text{animate}(x) \ \& \ x = g(k)]$$

⇒ This *idx* is an identity function which also *imposes animacy*.

The *idx* head ensures that only strict readings are possible:

(17) STRICT IDENTITY READING (coreference):

- Pero<sub>1</sub> loves [his<sub>1</sub> father](=Jaka) and Maja<sub>2</sub> loves **him**(=Jaka) too
- Input LF: [TP Maja<sub>2</sub> [ 2 [vP t<sub>2</sub> loves [*idx*P *idx*<sub>5</sub> [R<sub>4</sub> u<sub>5</sub>]]]]]
- $\llbracket u_5 \rrbracket^g = \text{Jaka}$  (where  $g(5) = \text{Jaka}$ )  
 $\llbracket R_4 \rrbracket^g = \lambda z. \lambda w. [w = z]$  (where  $g(4) = \lambda z. \lambda w. [w = z]$ )  
 $\llbracket \text{idx}_5 \rrbracket^g = \lambda x. [\text{animate}(x) \ \& \ x = g(5)]$   
 $= \lambda x. [\text{animate}(x) \ \& \ x = \text{Jaka}]$

(18) LACK OF SLOPPY READING:

- \*Pero<sub>1</sub> loves his<sub>1</sub> father and Maja<sub>2</sub> loves **him**(=her<sub>2</sub> father) too
- Input LF: [TP Maja<sub>2</sub> [ 2 [vP t<sub>2</sub> loves [*idx*P *idx*<sub>7</sub> [R<sub>3</sub> u<sub>2</sub>]]]]]
- $\llbracket \text{TP} \rrbracket^g = \text{loves}(\iota x [\text{animate}(x) \ \& \ x = g(7) \ \& \ \text{father}(x)(\text{Maja})])(\text{Maja})$   
 ⇒  $\llbracket \text{TP} \rrbracket^g$  will always be undefined in the relevant context because Maja’s father has not been introduced as a linguistic antecedent (cf. (15a) above)

### 4.1.3 Picking the right pronoun in the derivation

The proposal above introduces a lot of redundancy, which is actually our goal: in most contexts the two types of pronouns will be semantically equivalent

⇒ Choosing the right pronoun in a given derivation is then going to be governed by *Economy of Representation* principles, favoring structurally simpler pronouns.

*Avoid Pronoun* (Chomsky 1981:65), *Minimal Structure Principle* (Law 1991), *Structural Economy Principle* (Safir 1993:64), Speas (1994:186-187), *Minimize Structure* (Cardinaletti and Starke 1994:89) Chomsky (1995:294), *Minimize Restrictors!* (Schlenker 2005:391), . . .

<sup>1</sup>See Wiltschko (1998), Bosch et al. (2003), Bosch and Umbach (2007), Patel-Grosz and Grosz (2017), i.a.



Given the approach I am taking to semantically rigid pronouns, I adopt:

- (19) **Minimize DP!** (Patel-Grosz and Grosz 2017:279)  
 An extended NP projection  $\alpha$  is deviant if  $\alpha$  contains redundant structure; i.e.:
- a. if there exists an extended NP projection  $\beta$  that has fewer syntactic nodes than  $\alpha$ , and
  - b. *Referential Irrelevance*: if  $\beta$  is grammatical and has the same denotation as  $\alpha$ , and
  - c. *Pragmatic Irrelevance*: if using  $\alpha$  instead of  $\beta$  does not serve another purpose.

But we must also ensure that pronouns with fewer interpretable features with marked values (if these correspond to nodes in the pronoun) are not picked over pronouns with more of them:

⇒ Interpretable features on pronouns introduce presuppositions (Cooper 1983);

⇒ *Maximize Presupposition!* (Heim 1991) ensures we pick the pronouns that carry the strongest presupposition compatible with the context.

## 4.2 Explaining the morphological and phonological split

The syntactic building blocks for personal pronouns:

- $\sqrt{\text{pro}}$  LF: Maps to property variable ( $[R_i x_j]$  from above)  
 PF: Provides lexical accent ( $\Sigma$ ), required for stress assignment ( $(\Sigma)$ )
- $\varphi$  LF: Maps to property variable ( $[R_i x_j]$ ) +  $\varphi$ -feature presuppositions  
 PF: Spells-out values of  $\varphi$ -features
- K** LF: Is uninterpretable [uK] if structural and interpretable [iK] with presuppositions if lexical (cf. Franks 1994, Bošković 2006, 2007)  
 PF: Spells-out case features; can condition spell-out of  $\varphi$ -features (Slovenian inflection is fusional); delimits the phonological word ( $\omega$ )
- $\text{id}_x$  LF: Ensures animacy and introduces anaphoric index  
 PF: Always null ( $\emptyset$ )
- P** PF: Depending on the P, may or may not be lexically accented ( $\Sigma$ );  
 can condition spell-out of  $\varphi$ -features if K is missing in the structure.

**K-less pronouns:** P can license a pronoun either by assigning it Case or incorporating it (cf. Baker 1988), in which case K is redundant—unless K is interpretable

**Stress-shift to P:** In Bosnian/Croatian/Serbian stress may shift from NP to P, but not if NP is structurally complex (Talić 2018); I propose a similar process is active with Slovenian pronouns:

- (20) **Prosody & stress rules** (simple version; cf. Russian stress rule, Kiparsky and Halle 1977):
- a. KP/PP is a prosodic word  $\omega$  iff it dominates at least 1 accented syllable  $\Sigma$
  - b. An accented syllable  $\Sigma$  must be part of a prosodic word  $\omega$
  - c. Within a prosodic word  $\omega$  stress the leftmost accented syllable: ( $\omega(\underline{\Sigma\Sigma})$ ), if  $\omega$  contains no accented syllables, stress the leftmost syllable: ( $\omega(\underline{\sigma\sigma})$ )

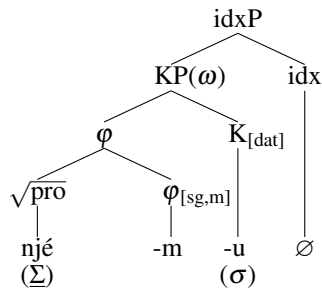
As a result there are two different ways for a pronoun to be prosodically deficient:

- (i) Pronoun lacks  $\sqrt{pro}$  and thus lexical accent: *all clitic pronouns, some P-pronouns*
- (ii) Pronoun lacks KP and cannot project prosodic word boundary: *some P-pronouns*

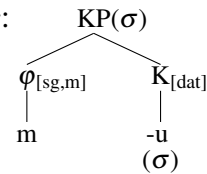
#### 4.2.1 Strong vs. clitic pronouns

Example for 3rd person masculine dative—same difference with all strong-clitic pairs:

(21) a. *Strong:*



b. *Clitic:*



LF: Strong pronoun semantically rigid, due to *idx*

PF: Strong pronoun can be stressed, due to  $\sqrt{pro}$  mapping to  $\Sigma$ ; clitic pronoun is prosodically deficient ( $\sigma$ ), has no  $\sqrt{pro}/\Sigma$  in KP and requires a non-deficient host

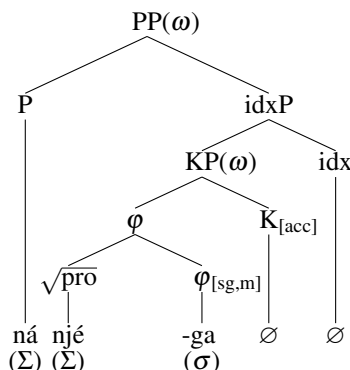
#### 4.2.2 Strong vs. P-pronouns

In PPs, prosodically deficient pronouns cannot move out of PP (cf. Abels 2003a,b) and cliticize to a prosodically non-deficient host; but some Ps may serve as such a host.

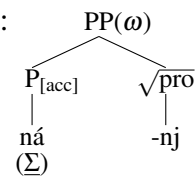
- The absence of KP is permitted as ACC assigned by the Ps is structural uninterpretable Case  $\Rightarrow$  In the syntax, incorporation of the pronoun into PP will license the pronoun

**PATTERN 1.** Different morphemes in the two types of reduced pronouns (3.M.SG.ACC):

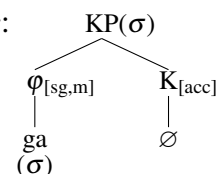
(22) a. *Strong:*



b. *P-pronoun:*



c. *Clitic:*

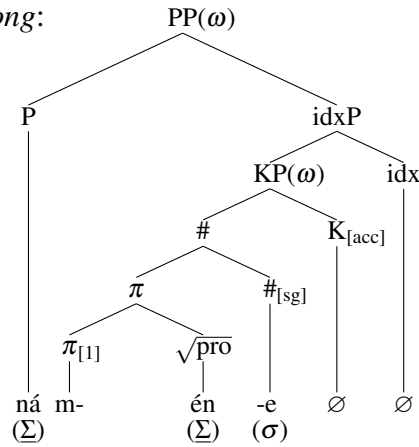


LF: Strong pronoun semantically rigid, due to *idx*

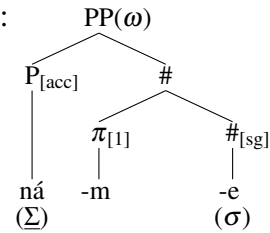
PF: Strong pronoun can be stressed, due to  $\sqrt{pro}/\Sigma$ ; P-pronoun is prosodically deficient:  $\sqrt{pro}/\Sigma$  is not dominated by KP, but it is dominated by an accented P

**PATTERN 2.** Same morphemes in P-pronoun and clitic pronoun (1.SG.ACC):

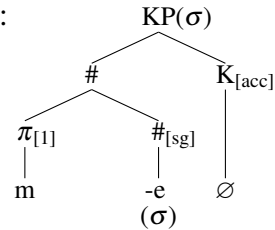
(23) a. *Strong:*



b. *P-pronoun:*



c. *Clitic:*



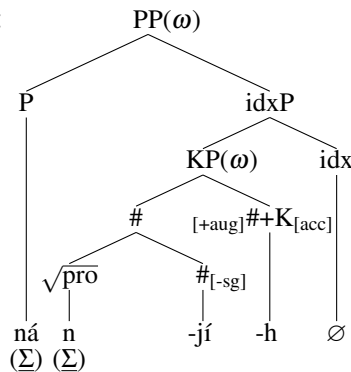
LF: Strong pronoun semantically rigid, due to *idx*

PF: Strong pronoun can be stressed, due to  $\sqrt{pro}/\Sigma$ ;

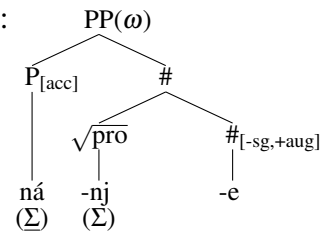
P-pronoun is prosodically deficient: lacks  $\sqrt{pro}/\Sigma$  and KP, but can cliticize to accented P

**PATTERN 3.** Different inflection in P-pronoun vs. strong and clitic pronoun (3.PL.ACC):

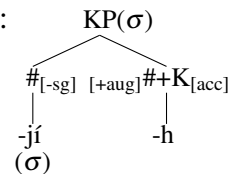
(24) a. *Strong:*



b. *P-pronoun:*



c. *Clitic:*

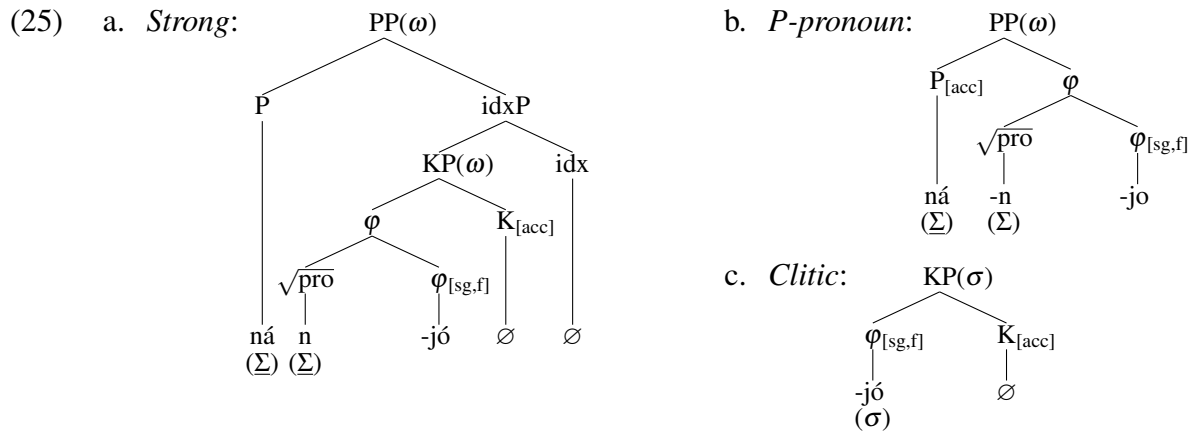


LF: Split is yielded the same way as above (via *idx*)

PF: Same as above, lack of KP leads to incorporation into PP

- Plural vs. dual contrast requires [ $-$ singular] and [ $\pm$ augmented] features—here K is fused (Halle and Marantz 1993) with the # head that yields [ $\pm$ augmented]
- If K is absent, the two #s are fused, requiring a different morpheme (cf. relative pronoun *katere* ('which.PL.ACC'); demonstrative pronoun *te* ('this.PL.ACC'))

**PATTERN 4.** P-pronoun and strong pronoun differ only in stress-shift (3.F.SG.ACC):

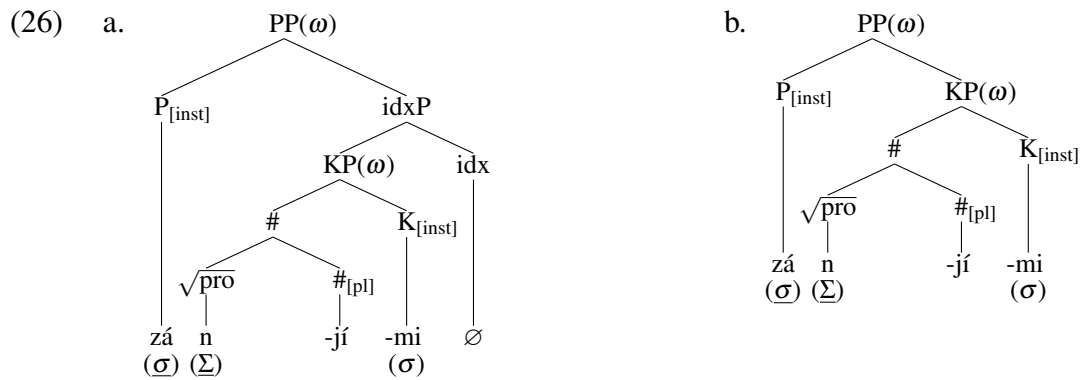


LF: Split is yielded the same way as above (via *idx*)

PF: Lack of KP leads to incorporation into PP; only *idx* and K can be dropped

### 4.2.3 Strong-only pronouns

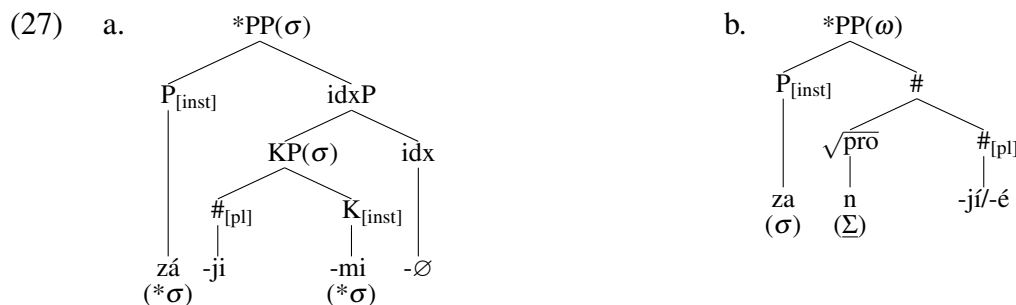
In the context of unaccented interpretable lexical-Case assigning Ps, there are never any **surface** clitic/P-forms, but there can still be an underlying structural difference:



LF: Split is yielded the same way as above (via *idx*)

PF: No difference, as *idx* never makes any PF contribution

Smaller versions of such pronouns are impossible and yield ungrammatical results:



- Absence of  $\sqrt{\text{root}}$  yields a crash at PF (cf. (27a)): stress assignment requires a prosodic word ( $\omega$ ), which cannot be formed here due to lack of  $\Sigma$ 's both in KP and PP
- Absence of KP is unrecoverable (violates *Maximize Presupposition!*): lexical instrumental case assigned by P is interpretable (introduces presuppositions).

## 5 Conclusion

- Slovenian pronouns show that what we see is not always what we get: the form of a pronoun at PF may be misleading in relation to its underlying structure
- However, I have shown that an analysis in terms of purely syntactic differences is possible—but to arrive at it, we have to carefully consider both PF and LF factors

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## Appendix

### A Full semantic derivations

#### A.1 Deriving semantically flexible pronouns

(28) *Iota rule of interpretation:*

A non-branching node  $\alpha$  dominating  $\beta$  of type  $\langle e, t \rangle$  can be interpreted as either (i)  $\llbracket \beta \rrbracket^g$  or as (ii)  $\iota z \llbracket \llbracket \beta \rrbracket^g z \rrbracket$  (whichever leads to a well-formed derivation).

(29) STRICT IDENTITY READING (coreference):

a. Pero<sub>1</sub> loves [his<sub>1</sub> father](=Jaka) and Maja<sub>2</sub> loves him(=Jaka) too

b. Input LF:  $[\text{TP Maja}_2 [2 [\text{vP } t_2 \text{ loves } [R_4 u_5]]]]$   
( $R$  is a relation type  $\langle e, \langle e, t \rangle \rangle$  or also just  $\langle e, t \rangle$ )

c.  $\llbracket u_5 \rrbracket^g = \text{Jaka}$  (where  $g(5) = \text{Jaka}$ )

$\llbracket R_4 \rrbracket^g = \lambda z. \lambda x. [x = z]$  (where  $g(4) = \lambda z. \lambda x. [x = z]$ )

$\llbracket [R_4 u_5] \rrbracket^g = g(4)(g(5))$   
 $= \lambda z. \lambda x. [x = z](\text{Jaka})$   
 $= \lambda x. [x = \text{Jaka}]$

$\llbracket \text{vP} \rrbracket^g = \text{loves}(\iota x [x = \text{Jaka}])(g(2))$  (via Iota rule)

$\llbracket \text{TP} \rrbracket^g = \lambda y. [\text{loves}(\iota x [x = \text{Jaka}])(y)](\text{Maja})$   
 $= \text{loves}(\iota x [x = \text{Jaka}])(\text{Maja})$

$\llbracket \text{TP} \rrbracket^g$  is defined iff there is a unique  $x$  such that  $x$  is Jaka (which is met), so  $\llbracket \text{TP} \rrbracket^g$  is true if Maja loves Jaka, false otherwise

(30) SLOPPY IDENTITY READING (binding into pronoun):

a. Pero<sub>1</sub> loves his<sub>1</sub> father and Maja<sub>2</sub> loves him(=her<sub>2</sub> father) too

b. Input LF:  $[\text{TP Maja}_2 [2 [\text{vP } t_2 \text{ loves } [R_3 u_2]]]]$

c.  $\llbracket u_2 \rrbracket^g = \text{Maja}$  (where  $g(2) = \text{Maja}$ )

$\llbracket R_3 \rrbracket^g = \lambda z. \lambda x. [\text{father}(x)(y)]$  (where  $g(3) = \lambda y. \lambda x. [\text{father}(x)(y)]$ )

$\llbracket [R_3 u_2] \rrbracket^g = g(3)(g(2))$   
 $= \lambda y. \lambda x. [\text{father}(x)(y)](g(2))$   
 $= \lambda x. [\text{father}(x)(g(2))]$

$\llbracket \text{vP} \rrbracket^g = \text{loves}(\iota x [\text{father}(x)(g(2))])(g(2))$  (via Iota rule)

$\llbracket \text{TP} \rrbracket^g = \lambda y. [\text{loves}(\iota x [\text{father}(x)(y)])(y)](\text{Maja})$   
 $= \text{loves}(\iota x [\text{father}(x)(\text{Maja})])(\text{Maja})$

$\llbracket \text{TP} \rrbracket^g$  is defined iff there is a unique  $x$  such that  $x$  is Maja's father; if defined  $\llbracket \text{TP} \rrbracket^g$  is true if Maja loves Maja's father, false otherwise

## A.2 Deriving semantically rigid pronouns

$$(31) \llbracket \text{id}_{x_k} \rrbracket^g = \lambda x. [\text{animate}(x) \ \& \ x = g(k)]$$

(32) STRICT IDENTITY READING (coreference):

a. Pero<sub>1</sub> loves [his<sub>1</sub> father](=Jaka) and Maja<sub>2</sub> loves him(=Jaka) too

b. Input LF:  $[\text{TP Maja}_2 [2 [\text{vP } t_2 \text{ loves } [\text{id}_{xP} \text{id}_{x_5} [R_4 u_5]]]]]$

c.  $\llbracket u_5 \rrbracket^g = \text{Jaka}$  (where  $g(5) = \text{Jaka}$ )

$\llbracket R_4 \rrbracket^g = \lambda z. \lambda w. [w = z]$  (where  $g(4) = \lambda z. \lambda w. [w = z]$ )

$\llbracket [R_4 u_5] \rrbracket^g = g(4)(g(5))$   
 $= \lambda z. [\lambda w. [w = z]](\text{Jaka})$   
 $= \lambda w. [w = \text{Jaka}]$

$\Rightarrow \llbracket \text{id}_{x_5} \rrbracket^g = \lambda x. [\text{animate}(x) \ \& \ x = g(5)]$   
 $= \lambda x. [\text{animate}(x) \ \& \ x = \text{Jaka}]$

$\Rightarrow \llbracket \text{id}_{xP} \rrbracket^g = \lambda x. [\text{animate}(x) \ \& \ x = \text{Jaka}]$  (via Predicate Modification)

$\llbracket \text{vP} \rrbracket^g = \text{loves}(\iota x [\text{animate}(x) \ \& \ x = \text{Jaka}])(g(2))$  (via Iota rule)

$\llbracket \text{TP} \rrbracket^g = \lambda y. [\text{loves}(\iota x [\text{animate}(x) \ \& \ x = \text{Jaka}])(y)](\text{Maja})$   
 $= \text{loves}(\iota x [\text{animate}(x) \ \& \ x = \text{Jaka}])(\text{Maja})$

$\llbracket \text{TP} \rrbracket^g$  is defined iff there is a unique  $x$  such that  $x$  is Jaka and animate (which is met), so  $\llbracket \text{TP} \rrbracket^g$  is true if Maja loves Jaka, false otherwise

(33) LACK OF SLOPPY READING:

a. \*Pero<sub>1</sub> loves his<sub>1</sub> father and Maja<sub>2</sub> loves him(=her<sub>2</sub> father) too

b. Input LF:  $[\text{TP Maja}_2 [2 [\text{vP } t_2 \text{ loves } [\text{id}_{xP} \text{id}_{x_7} [R_3 u_2]]]]]$

c.  $\llbracket \text{TP} \rrbracket^g = \text{loves}(\iota x [\text{animate}(x) \ \& \ x = g(7) \ \& \ \text{father}(x)(\text{Maja})])(\text{Maja})$

$\llbracket \text{TP} \rrbracket^g$  is defined iff there is a unique  $x$  such that  $x$  is animate, the salient individual denoted by  $g(7)$ , and Maja's father

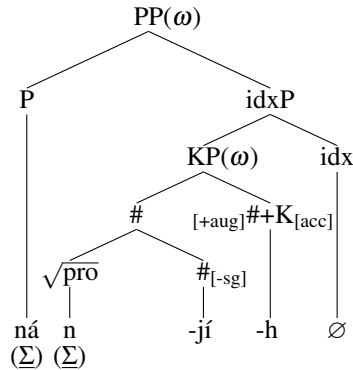
$\Rightarrow \llbracket \text{TP} \rrbracket^g$  will always be undefined in the relevant context because Maja's father has not been introduced as a linguistic antecedent (cf. (15a) above)



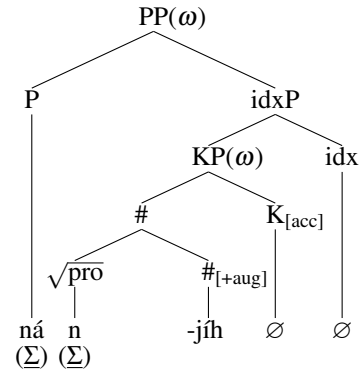
## B The delights and dangers of ambiguity

In the system I adopted above, there are two ways to derive fusional inflectional morphology. Consider the two alternatives for strong pronoun structures:

(34) a. ALLOMORPHY + FUSION:



b. ALLOMORPHY:



There is evidence from dialectal variation that both options might be in use:

	SINGULAR				PLURAL			DUAL		
REFL	1P	2P	3P.M	3P.F	1P	2P	3P	1P	2P	3P
ná_se	ná_me	ná_te	ná_nj	ná_njo		ná_nje				ná_nju
na sébe	na méne	na tébe	na njéga	na njó	na nás	na vás	na njih	na náju	na váju	na njú

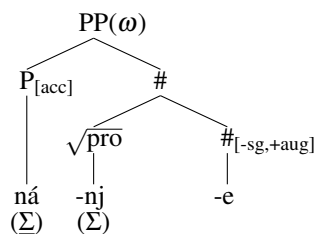
Table 6: Standard Slovenian P-pronouns vs. strong pronouns (‘on’+ ACC pronoun)

REFL	SINGULAR				PLURAL			DUAL		
	1P	2P	3P.M	3P.F	1P	2P	3P	1P	2P	3P
ná_se	ná_me	ná_te	ná_njga	ná_njo	ná_nas	ná_vas	ná_njih			ná_nju
na sébe	na méne	na tébe	na njéga	na njó	na nás	na vás	na njih	na náju	na váju	na njú

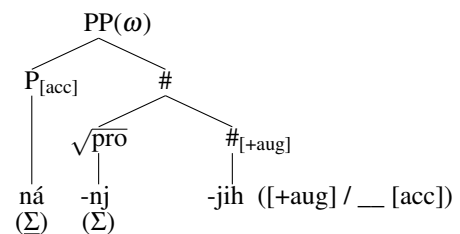
Table 7: Gorica Slovenian P-pronouns vs. strong pronouns (‘on’+ ACC pronoun)

P-pronoun alternatives:

(35) a. ALLOMORPHY + FUSION (standard):



b. ALLOMORPHY (Gorica):



The difference lies in the reanalysis of plural ([-sg,+aug]) # heads: Do they only encode number or also case information, as in (35b) (conditioned by the case feature on K or P).