

# Regional variation in Italian s-voicing as constraint interaction<sup>☆</sup>

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## 1 INTRODUCTION – S-VOICING IN NORTHERN ITALIAN (LOMBARDIAN)

### (1) Italian s-voicing:

- |                    |                            |                 |               |
|--------------------|----------------------------|-----------------|---------------|
| a. a[z]ola         | 'buttonhole'               | i. ga[s]        | 'gas'         |
| b. a[z]ilo         | 'nursery school'           | j. di[z]-onesto | 'dishonest'   |
| c. ca[s:]a         | 'cash register'            | k. di[sp]iacere | 'displeasure' |
| d. ca[z]a          | 'house'                    | l. di[zg]razia  | 'misfortune'  |
| e. ca[z]-ina       | 'house' diminutive         | m. a-[s]ociale  | 'asocial'     |
| f. lo [s]apevo     | 'I knew it'                | o. ga[z]olio    | 'diesel'      |
| g. telefonati#[s]i | 'having called each other' | p. gira[s]ole   | 'sunflower'   |
| h. [s]apore        | 'taste' (noun)             |                 |               |

### (2) Intervocalic s-voicing and prefixes

- |                    |                          |                 |                       |
|--------------------|--------------------------|-----------------|-----------------------|
| a. a-[s]ociale     | 'asocial'                |                 |                       |
| bi-[s]essuale      | 'bisexual'               |                 |                       |
| ri-[s]uonare       | 'to ring again'          |                 |                       |
| pre-[s]entire      | 'to hear in advance'     |                 |                       |
| b. re[z]istenza    | 'resistance'             |                 |                       |
|                    |                          |                 |                       |
| c. di[z]-uguale    | 'unequal'                | d. di[sp]iacere | 'displeasure'         |
| bi[z]-entusiastico | 'extremely enthusiastic' | bi[sk]ugino     | 'second grade cousin' |
| mi[z]-uso          | 'misuse'                 | mi[sk]onzezione | 'misconception'       |
| e[ks]-amico        | 'ex-friend'              | e[ksk]ollega    | 'ex-colleague'        |
| tran[z]-atlantico  | 'transatlantic'          | tran[sp]olare   | 'guess what?'         |

→ Voicing of *s* is completely predictable.

¶ Scope of talk: Comparison of different varieties of Italian w.r.t. *s*-voicing environments. Trentino, Lombardian, Tuscan, Veneto, Abruzzese

⊕ Show problems with Nespov & Vogel's (1986) as well as with Kenstowicz' (1995) approach.

✂ Develop an OT analysis of microvariation based on differences in constraint interaction.

<sup>☆</sup> Special thanks go to Agnese, Emanuela, Giuseppe and Marco, who said so many Italian words for me, happily answered all my stupid questions, and, of course, will never agree on the rights and wrongs of Italian pronunciation.

→ Nespov & Vogel (1986): Intervocalic *s*-voicing happens within the domain of the prosodic word.

→ Kenstowicz (1995): Intervocalic *s*-voicing is not restricted to domain, affix asymmetry is OO-Faith effect.

→ Bertinetto (1999): Absence of voicing indicates strong morphological boundary. (see also Krämer, 2001)

### (3) Italian voicing as OO Faithfulness I

/dis + onesto/	Base-Identity	*VsV
☞ a. di[z]-onesto		
b. di[s]-onesto		*!
no base: *dis		

### (4) Italian voicing as OO Faithfulness II

/a + sociale/	Base-Identity	*VsV
☞ a. a-[s]ociale		*
b. a-[z]ociale	*!	
base: sociale		

### (5) Some Italian OO problems:

- |                      |                            |                    |                                      |
|----------------------|----------------------------|--------------------|--------------------------------------|
| a. pre[z]upposizione | 'presupposition'           | *pre[s]upposizione | base: [s]upposizione<br>'assumption' |
| b. ga[z]olio         | 'diesel'                   | *ga[s]olio         | bases: ga[s] + olio<br>'gas' + 'oil' |
| c. telefonati[s]i    | 'having called each other' | *telefonati[z]i    | no free base: *[s]i                  |

### (6) Lombardian as Base-Output correspondence

i. /casa/	Base-Identity	*VsV	*[+voice]
c. ca[s]a		*!	
☞ d. ca[z]a			*
ii. /trans-atlantico/			
☛ a. tran[s]atlantico			
⊕ b. tran[z]atlantico			*!

? Why is the *s* in *tran[z]atlantico* voiced in Lombardian?

? Why is the *s* in *ga[z]olio* generally voiced?

Bertinetto (1999): right and left word boundaries enjoy particular protection. Thus, voicing is less likely to apply.

(7) Translation into OT: positional protection = positional faithfulness = contrast (!)

(8) IO-IDENTLEFTstem: 'The leftmost segment of the stem is identical in input and output.'  
(IO-IDENTRIGHTstem mutatis mutandis)

(9) IO-IDENTR/Lstem >> \*VsV >> \*[+voice]

⊕ Rather than 'protection' we find extremely stable neutralisation to voicelessness and no geminates at the word margins.

## 2 REGIONAL VARIATION AND PROBLEMS WITH IT

"LASCIA TE OGNI SPERANZA, VOI CH'ENTRATE."<sup>1</sup>

(10) The north-south slope

	postnasal voicing	postnasal prefix voicing	intervocalic voicing	intervocalic prefix voicing	regressive voicing assimilation
Trentino	+	+	+	+	+
	<i>pen[z]ione</i>	<i>tran[z]alpino</i>	<i>ca[z]a</i>	<i>di[z]unito</i>	<i>di[zg]razia</i>
Lombardian	-	+	+	+	+
Veneto	-	∅	+	+	+
'Zingarelli'	-	-	-	+	+
Tuscan	-	-	-	+	+
Abruzzese	-	-	-	-	+

(11) 'Zingarelli'/dictionary'-Italian behaves largely like Tuscan w.r.t. *s*-voicing:

- |              |                    |                   |             |
|--------------|--------------------|-------------------|-------------|
| a. ca[s]a    | 'house'            | f. ripre[s]a      | 'restart'   |
| b. ca[s:]a   | 'box, cashier'     | g. ripre[z]entare | 'represent' |
| c. ca[z]o    | 'incident'         | h. ri[s]erva      | 'reserve'   |
| d. ca[z]ino  | 'chaos'            | i. ri[s]o         | 'rice'      |
| e. ca[s:]one | 'big box, cashier' |                   |             |

### 2.1 TUSCAN – LESS VOICING AND MORE PROBLEMS

✎ No intervocalic voicing, but prefix-final voicing

(12) Tuscan

- |                    |                            |                  |               |
|--------------------|----------------------------|------------------|---------------|
| a. ca[s:]a         | 'cash register'            | h. di[z]-onesto  | 'dishonest'   |
| b. ca[s]a          | 'house'                    | i. di[sp]iacere  | 'displeasure' |
| c. ca[s]-ina       | 'house' diminutive         | j. di[zg]razia   | 'misfortune'  |
| d. lo [s]apevo     | 'I knew it'                | k. a-[s]ociale   | 'asocial'     |
| e. telefonati#[s]i | 'having called each other' | l. tran[s]alpino | 'transalpine' |
| f. [s]apore        | 'taste' (noun)             | m. e[ks]amico    | 'ex-friend'   |
| g. ga[s]           | 'gas'                      |                  |               |

(13) Tuscan voicing as Base-Output correspondence

i.	/casa/	Base-Identity	*[+voice]	*VsV
☞	c. ca[s]a			*
	d. ca[z]a		*!	
ii.	/dis + onesto/			
☛	a. di[s]onesto			*
☹	b. di[z]onesto		*!	

⊕ *Kenstowicz* actually analyses an Italian variety which has intervocalic *s*-voicing, voicing of prefix-final *s* between vowels, and no voicing of prefix-final *s* after a nasal and before a vowel. This is neither 'Zingarelli', nor Tuscan, nor Lombardian

⊕ *Nespor & Vogel* likewise do not explain why prefix-final *s* still has to be voiced when word-internal voicing is absent.

⊕ *Peperkamp* (1997) has the same empirical problem: She predicts a variety with intervocalic voicing but without voicing of prefix *s* between nasal and vowel. Additionally she needs two not very well-motivated markedness constraints \*[#zV] and \*[Vz] to exclude voiced stem-initial and voiced word-final *s*.

### 2.2 ABRUZZESE – EVEN LESS VOICING

(14) Abruzzese

- |                    |                            |                  |               |
|--------------------|----------------------------|------------------|---------------|
| a. ca[s:]a         | 'cash register'            | h. di[s]-onesto  | 'dishonest'   |
| b. ca[s]a          | 'house'                    | i. di[sp]iacere  | 'displeasure' |
| c. ca[s]-ina       | 'house' diminutive         | j. di[zg]razia   | 'misfortune'  |
| d. lo [s]apevo     | 'I knew it'                | k. a-[s]ociale   | 'asocial'     |
| e. telefonati#[s]i | 'having called each other' | l. tran[s]alpino | 'transalpine' |
| f. [s]apore        | 'taste' (noun)             | m. e[ks]amico    | 'ex-friend'   |
| g. ga[s]           | 'gas'                      |                  |               |

### 2.3 VENETO AND DERIVATIONAL OPACITY

(15) Veneto

- |                    |                            |                 |               |
|--------------------|----------------------------|-----------------|---------------|
| a. ca[s]a          | 'cash register'            | h. di[z]-onesto | 'dishonest'   |
| b. ca[z]a          | 'house'                    | i. di[sp]iacere | 'displeasure' |
| c. ca[z]-ina       | 'house' diminutive         | j. di[zg]razia  | 'misfortune'  |
| d. lo [s]apevo     | 'I knew it'                | k. a-[s]ociale  | 'asocial'     |
| e. telefonati#[s]i | 'having called each other' | l. tra[s]alpino | 'transalpine' |
| f. [s]apore        | 'taste' (noun)             | m. e[s]amico    | 'ex-friend'   |
| g. ga[s]           | 'gas'                      |                 |               |

Intervocalic voicing does not apply to degeminated *s*, but applies to prefix-final intervocalic *s*; prefix-final consonant clusters are reduced; The *s* in (15l,m) remains voiceless though in intervocalic position at the surface.

<sup>1</sup> Dante Alighieri (ca. 1307-13) *La Divina Commedia*, 3<sup>rd</sup> line of the 3<sup>rd</sup> *terzine*, of the 3<sup>rd</sup> *canto* of hell.

(16) Possible ordered rules in Veneto

	/dis- + onesto/	/trans- + alpino/	/a- + sociale/
1. syllabification	↓	↓	↓
	di.s#o.nes.to	tran.s#al.pi.no	a.#so.tʃa.le
2. layering/bracket erasure	↓	↓	↓
	(di.so.nes.to)	(tran.sal.pi.no)	a.(so.tʃa.le)
3. s-voicing	↓	↓	↓
	dizonesto	n.a.	n.a.
4. coda deletion	↓	↓	↓
	n.a.	tra.sal.pi.no	n.a.
	↓	↓	↓
5. output	dizonesto	trasalpino	asotʃale

3 NEW ANALYSIS

3.1 BASIC ASSUMPTIONS AND OBSERVATIONS:

- ❶ Tuscan/Standard has prefix-final voicing but no intervocalic s-voicing.
- ❷ The phonemic distinction of s is length not voicing in Lombardian, both in Tuscan.
- ❸ Venetian has no surface geminates and it has intervocalic s-voicing, but nevertheless a word-internal contrast!
- ❹ The only position that can show a phonemic contrast in length or voicing is morpheme-medially. Margins tend to be neutralised first.
- ❺ Italian displays an implicational north-south slope w.r.t. voicing (see 10).

(17) A 'Zingarelli' minimal trio

- a. ca[z]one 'cheese production site'
- b. ca[s]one 'big house'
- c. ca[s:]one 'big box'

(18) Neutralisation and contrast in Venetian

	Veneto	'Zingarelli'	gloss
a.	ca[z]a	ca[s]a	'house'
b.	co[z]a	co[s]a	'thing'
c.	ca[z]o	ca[z]o	'case'
d.	ca[s]a	ca[s:]a	'box, cashier'

(19) Syllabification and prosodic integration

	σ	σ	σ	...
	△	△	△	
a.	(#ga. 'z ## o lio#)			
b.	(#di. z ## o. 'nes. to#)			
c.	(#tran. z ## a t. 'lan. ti . ko#)			
d.	(#ek. s ## a. 'mi. ko#)			
e.	#a. #([s]o. tʃa le			

( ) = prosodic word boundaries, # = morpheme boundaries

No reason for integration in *a-sociale*. (Nespor & Vogel; Peperkamp, 1995, see below.)

a/b = intervocalic context, voicing	stem/prefix-final s + V-initial stem
c = intersonorant context, voicing	prefix-final s
d = between a stop and a vowel, no voicing	any position
e = intervocalic, no voicing	vowel-final prefix + s-initial stem

(20) ALIGNL(stem,pwd): The left edge of every stem coincides with the left edge of a prosodic word. (McCarthy & Prince, 1993, Peperkamp, 1995, Selkirk, 1995)

(21) ONSET: Syllables have a consonantal onset.

(22) DEP: Segments in the output have a correspondent in the input.

(23) Prosodic integration and syllabification

	DEP	ONSET	ALIGNL
a. /a-sotʃale/ ~ a.(so.tʃa.le)			
b. /a-sotʃale/ ~ (a.so.tʃa.le)			*!
c. /mis-uzo/ ~ mis.(u.zo)		*!	
d. /mis-uzo/ ~ mis.(ʔu.zo)	*!		*
e. /mis-uzo/ ~ (mi.su.zo)			*

(24) \*(VsV)<sub>PWD</sub>: 'No intervocalic s within a Prosodic Word.'

(25) \*NC̣ (Pater, 1996, forthcoming): 'No nasal plus voiceless obstruent sequences.'

(26) \*[+voice] / \*VOI: 'Obstruents are voiceless.'

➤ Problem with positional faithfulness (Beckman, 1998) and plain faithfulness: protection of edges (IDENT<sub>σi</sub>) or morphological categories (IDENT<sub>stem</sub>). Italian needs an "IO-IDENT<sub>middle-of-the-morpheme</sub>" constraint.

(27) The best place for contrast in Italian

	Toscana	Lombardo	Veneto		Toscana	Lombardo	Veneto
a.	ca[z]o	ca[z]o	ca[z]o	b.	[s]ale	[s]ale	[s]ale
	ca[s]a	ca[z]a	ca[z]a		*[s:]ale	*[s:]ale	*[s:]ale
	ca[s:]a	ca[s:]a	ca[s]a		*[z]ale	*[z]ale	*[z]ale
c.	bu[s]	bu[s]	bu[s]				
	*bu[s:]	*bu[s:]	*bu[s:]				
	*bu[z]	*bu[z]	*bu[z]				

Ranking paradoxon: IO-IDENT >> MARKEDNESS vs. MARKEDNESS >> IO-IDENT

Ordinary IO-Identity would allow contrasts such as [s]apore ~ \*[z]apore; bu[s] ~ \*bu[z]. (as, e.g., in English hi[s]/hi[z])

(28) I-Contiguity ("No Skipping", McCarthy & Prince, 1995):

The portion of  $S_1$  standing in correspondence forms a contiguous string.

Domain ( $\mathfrak{R}$ ) is a single contiguous string in  $S_1$ .

$\varphi$  /xyz/  $\rightarrow$  xz

(29) O-Contiguity ("No intrusion", McCarthy & Prince, 1995):  $\varphi$  /xz/  $\rightarrow$  xyz

(30) Abbreviation: (28)+(29) = S-CONTIG: Segmental contiguity.

(31) F-CONTIG: On the featural level:

a.  $\begin{array}{ccccccc} X & & X & & X & & X & & X & & X \\ | & & | & & | & & & & & & \\ /F_1 & & F_2 & & F_3/ & \rightarrow & F_1 & & & & F_3 \end{array}$   $\varphi$

b.  $\begin{array}{ccccccc} X & & X & & X & & X & & X & & X \\ | & & | & & | & & & & & & \\ / \alpha F_1 & & \beta F_2 & & \delta F_3/ & \rightarrow & \alpha F_1 & & -\beta F_2 & & \delta F_3 \end{array}$   $\varphi$

(32) F-Contiguity and markedness

	F-CONTIG	*VOI
i. a. /buz/ ~ buz		*!
$\varphi$ b. /buz/ ~ bus		
ii. c. /zi/ ~ zi		*!
$\varphi$ d. /zi/ ~ si		
iii. $\varphi$ e. /kazo/ ~ kazo		*
f. /kazo/ ~ kaso	*!	

(33) Ranking for Lombardian:

$*(VsV)_{pWd} \gg F\text{-CONTIG} \gg *NC_{\varphi} \gg *[\text{+voice}]$

(34) Lombardian voicing

i.	$*(VsV)_{pWd}$	F-CONTIG	*NC $_{\varphi}$	*VOI
a. /casa/ ~ ca[s]a	*!			
$\varphi$ b. /casa/ ~ ca[z]a		*		*
$\varphi$ c. /cas:a/ ~ ca[s:]a				
d. /cas:a/ ~ ca[z:]a		*!		*

ii.	$*(VsV)_{pWd}$	F-CONTIG	*NC $_{\varphi}$	*VOI
a. /mis-avventura/ ~ mi[s]avventura	*!			
$\varphi$ b. /mis-avventura/ ~ mi[z]avventura				*

iii.	$*(VsV)_{pWd}$	F-CONTIG	*NC $_{\varphi}$	*VOI
$\varphi$ a. /pensare/ ~ pen[s]are			*	
b. /pensare/ ~ pen[z]are		*!		*
c. /trans-alpino/ ~ tran[s]alpino			*!	
$\varphi$ d. /trans-alpino/ ~ tran[z]alpino				*
$\varphi$ e. /a-sociale/ ~ a.(#s]ociale				
f. /a-sociale/ ~ a.(#z]ociale				*!

(35) Lexicalised *pre[z]upposizione*: /presupposizione/

(/s/ subject to  $*(VsV)_{pWd}$ )

instead of /pre + supposizione/ with base [s]upposizione 'assumption'

### 3.2 TUSCAN AND LOMBARDIAN COMPARED

(36) Dialect variation with regard to intervocalic s-voicing

a. Lombardian:  $*(VsV)_{pWd} \gg F\text{-CONTIG}$  (output ca[z]a)

b. Tuscan: F-CONTIG  $\gg *(VsV)_{pWd}$  (output ca[s]a)

c. Lombardian:  $*NC_{\varphi} \gg *[\text{+voice}]$  (output tran[z]alpino)

d. Tuscan:  $*[\text{+voice}] \gg *NC_{\varphi}$  (output tran[s]alpino)

(37) Ranking for Tuscan

F-CONTIG  $\gg *(VsV)_{pWd} \gg *[\text{+voice}] \gg *NC_{\varphi}$

(38) Minimal regional variation in Italian

i.	Tuscan	F-CONT	$*(VsV)_{pWd}$	*VOI
$\varphi$ a. /kasa/ ~ kasa			*	
b. /kasa/ ~ kaza		*!		*
c. /dis+onesto/ ~ (di.s#onesto			*!	
$\varphi$ d. /dis+onesto/ ~ (di.z#onesto				*
e. /a+sot]ale/ ~ a.(#zot]ale				*!
$\varphi$ f. /a+sot]ale/ ~ a.(#sot]ale				

ii.	Lombardian	$*(VsV)_{pWd}$	F-CONT	*VOI
a. /kasa/ ~ kasa		*!		
$\varphi$ b. /kasa/ ~ kaza			*	*
c. /dis+onesto/ ~ (di.s#onesto		*!		
$\varphi$ d. /dis+onesto/ ~ (di.z#onesto				*
e. /a+sot]ale/ ~ a.(#zot]ale				*!
$\varphi$ f. /a+sot]ale/ ~ a.(#sot]ale				

(39) Another difference

i. Tuscan /trans-alpino/	F-CONT	*(VsV) <sub>PWD</sub>	*VOI	*NC̥
☞ a. tran[s]alpino				*
b. tran[z]alpino			*!	

  

ii. Lombardian /trans-alpino/	*(VsV) <sub>PWD</sub>	F-CONT	*NC̥	*VOI
a. tran[s]alpino			*!	
☞ b. tran[z]alpino				*

(40) The two Italian hierarchies so far:

- a. Northern Italian/Lombardian:  
 $*(VsV)_{PWD} \gg F\text{-CONTIG} \gg *NC̥ \gg *VOI$
- b. Standard/Tuscan:  
 $F\text{-CONTIG} \gg *(VsV)_{PWD} \gg *VOI \gg *NC̥$

### 3.3 AN ACCOUNT OF VENETIAN

Features (see data in 15):

- ▶ cluster reduction in prefixes, degemination,
- ▶ no voicing of exgeminate,
- ▶ no voicing of prefix-final ex-cluster members;
- ▶ voicing of prefix-final intervocalic s.

(41) Rankings for reduction and degemination:

- a. MAXstem  $\gg$  NoCODA  $\gg$  S-CONTIG
- b. \*GEMINATE  $\gg$  S-CONTIG

(42) Veneto cluster reduction

/trans-alpino/	MAXstem	NoCODA	S-CONTIG
a. trans.al.pi.no		*!*	
b. tran.sal.pi.no		*!	
c. tra.sa.pi.no	*!		
☞ d. tra.sal.pi.no			*

(43) Veneto prefix-final voicing

/dis- onesto/	*(VsV) <sub>PWD</sub>	F-CONTIG	*NC̥	*VOI
a. disonesto	*!			
☞ b. dizonesto				*

(44) A problem with degemination and cluster reduction

	*(VsV) <sub>PWD</sub>	F-CONTIG	*NC̥	*VOI
⊗ a. /kasa/ ~ kasa	*			
⊗ b. /kasa/ ~ kaza				
⊗ c. /trans- alpino/ ~ trasalpino	*!			
⊗ d. /trans- alpino/ ~ trazalpino				*

(45) The solution - Local Conjunction: S-CONTIGUITY & \*VOI

(46) No geminates in Veneto and no 'exgeminate' voicing

	*GEM	S-CONT & *VOI	*(VsV) <sub>PWD</sub>	F-CONT	*VOI	S-CONT
a. /kassa/ ~ kassa	*!					
☞ b. /kassa/ ~ kasa			*	*		*
c. /kassa/ ~ kaza		*!		*	*	*
d. /kasa/ ~ kassa	*!			*		*
e. /kasa/ ~ kasa			*!			
☞ f. /kasa/ ~ kaza					*	

(47) No prefix-final voicing of underlying clusters

/trans-alpino/	MAXSTEM	NoCODA	S-CONT & *VOI	*(VsV) <sub>PWD</sub>	F-CONTIG	*NC̥	*VOI	S-CONTIG
a. tran.sal.pi.no		**!				*		
b. tra.za.pi.no	*!						*	**
c. tra.zal.pi.no		*	*!				*	*
☞ d. tra.sal.pi.no		*		*				*

Despite opacity effect, Veneto is just like Lombardian.

(48) Veneto and Lombardian

- a. Lombardian:  
 $*(VsV)_{PWD} \gg F\text{-CONTIG} \gg *NC̥ \gg *VOI$
- b. Veneto:  
 $*GEM \gg MAXSTEM \gg NoCODA \gg S\text{-CONT} \& *VOI \gg$   
 $*(VsV)_{PWD} \gg F\text{-CONTIG} \gg *NC̥ \gg *VOI$

### 3.4 COMPARATIVE MARKEDNESS IN VENETIAN?

McCarthy (2002): Counterfeeding opacity =  $o_M \gg FAITH \gg N_M$

(49) Comparative markedness:

- FFC = the most faithful candidate w.r.t. input.
- All Markedness constraints = New Markedness ( $N_M$ ) and Old Markedness ( $o_M$ ).
- New Markedness violation: Markedness violation not incurred by the FFC.
- Old Markedness violation: Markedness violation already incurred by FFC.

(50) Comparative markedness in Veneto

i.	/dis-onesto/	$o^*(VsV)_{p_{wd}}$	FAITH	$N^*(VsV)_{p_{wd}}$
FFC a.	disonesto	*!		
☞ b.	dizonesto		*	
ii.	/trans-alpino/			
☞ d.	trasalpino			*
	e. trazalpino		*!	
	FFC = transalpino			

iii.	/kasa/	$o^*(VsV)_{p_{wd}}$	FAITH	$N^*(VsV)_{p_{wd}}$
FFC f.	kasa	*!		
☞ g.	kaza		*	
iv.	/kassa/			
☞ h.	kasa			*
	i. kaza		*!	
	FFC = kassa			
v.	/kazo/			
	j. kaso		*!	*
☞ FFC k.	kazo			

The approach seems to work fine.

- But:
- The FFC is just another abstract representation that has to be referred to and which has no other motivation (same holds for a possible Sympathy account).
  - the whole New/Old markedness distinction plays no role at all in the other dialects;
  - reranking does not lead to other varieties but to an odd pattern (see 51)

(51) Comparative markedness reranked

i.	/dis-onesto/	$N^*(VsV)_{p_{wd}}$	FAITH	$o^*(VsV)_{p_{wd}}$
☛ FFC a.	disonesto			*
⊕ b.	dizonesto		*!	

ii.	/trans-alpino/	$N^*(VsV)_{p_{wd}}$	FAITH	$o^*(VsV)_{p_{wd}}$
⊕ d.	trasalpino	*!		
☛ e.	trazalpino		*	
	FFC = transalpino			

iii.	/kasa/	$N^*(VsV)_{p_{wd}}$	FAITH	$o^*(VsV)_{p_{wd}}$
FFC f.	kasa			*
	g. kaza		*!	
iv.	/kassa/			
⊕ h.	kasa	*!		
☛ i.	kaza		*	
	FFC = kassa			
v.	/kazo/			
	j. kaso	*!	*	
☞ FFC k.	kazo			

(52) Comparative markedness increases the constraint inventory

$N^*(VsV)_{p_{wd}}$	$o^*(VsV)_{p_{wd}}$
$N^*NC_{\phi}$	$o^*NC_{\phi}$
$N^*VOI$	$o^*VOI$
$N^*GEMINATE$	$o^*GEMINATE$
$N_{ONSET}$	$o_{ONSET}$
$N_{NoCODA}$	$o_{NoCODA}$

The only pair that probably plays a role is the one in italics.

For Local Conjunctions we might have functional motivations.

"Avoid the worst of the worst" In this case: the complete loss of contrast.

### 3.5 OVERALL COMPARISON

- (53)
- |               |   |
|---------------|---|
| a. Trentino   | $*(VsV)_{p_{wd}}, *NC_{\phi} \gg F\text{-CONTIG} \gg *VOI$    |
| b. Lombardian | $*(VsV)_{p_{wd}} \gg F\text{-CONTIG} \gg *NC_{\phi} \gg *VOI$ |
| c. Veneto     | $*(VsV)_{p_{wd}} \gg F\text{-CONTIG} \gg *NC_{\phi} \gg *VOI$ |
| d. Tuscan     | $F\text{-CONTIG} \gg *(VsV)_{p_{wd}} \gg *VOI \gg *NC_{\phi}$ |
| e. Abruzzese  | $*VOI \gg F\text{-CONTIG} \gg *(VsV)_{p_{wd}} \gg *NC_{\phi}$ |
- (54)
- |               |  |
|---------------|--|
| a. Trentino   | $F\text{-CONTIG}, S\text{-CONTIG} \gg *GEMINATE$                             |
| b. Lombardian | $F\text{-CONTIG}, S\text{-CONTIG} \gg *GEMINATE$                             |
| c. Veneto     | $S\text{-CONTIG} \& *VOI \gg *GEMINATE \gg F\text{-CONTIG}, S\text{-CONTIG}$ |
| d. Tuscan     | $F\text{-CONTIG}, S\text{-CONTIG} \gg *GEMINATE$                             |
| e. Abruzzese  | $F\text{-CONTIG}, S\text{-CONTIG} \gg *GEMINATE$                             |

In Veneto, two largely ignored constraints 'gang up' to preserve contrast.

#### 4 SUMMARY AND CONCLUSIONS

- ☆ Italian varieties differ w.r.t. constraint rankings and constraint conjunctions.
- ☆ Even potential lexical differences can be tracked down as triggered by a specific constraint constellation.  
(Of course there are genuine lexical differences between varieties, which cannot be derived by constraint interaction. E.g., in the dialetto di Piatta (Lombardia) 'house' is not *casa* but rather *bait*, but systematic differences in patterns as in Veneto cannot just be done away with as lexical differences)
- ☆ The 'north-south voicing slope' can be attributed to different positions of markedness constraints in the respective hierarchies.
- ☆ Morpheme-medial position is most contrastive in Italian; edge positions tend to be neutralised. Contiguity of feature constellations is important in Italian.  
→ Bertinetto's "linguistic ecology" hypothesis can be confirmed: voiceless *s* is a strong indicator of a boundary (word > stem > affix > none). → But morpheme boundaries are not 'stronger' in Italian, rather they are weaker, more prone to neutralisation.  
Prefix-/word-final *s* is voiced as an indication of left stem-word edge mismatch (see Krämer, 2000, 2001)

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