

Microvariation of laryngeal contrast in Italian and French coronal fricatives[☆]

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1 INTRODUCTION

Aim of paper:

- ✦ A constraints-based typology of laryngeal contrast and neutralisation of S in varieties of Italian and French
- ✦ To show that patterns are not always what they look like at first sight: An apparently neutralised contrast might be encoded through different means (Lombardian) or an emergent contrast might be a derived one (Veneto)

Basic questions:

- ✦ Is a constraints-based approach feasible (as required by the Richness of the Base Hypothesis)?
- ✦ Are variety-specific underlying representations necessary in addition or a by-product of constraint ranking?

2 NEUTRALISATION AND CONTRAST

(1) The distribution of *s* and *z* in Standard French

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|-----------------------------------|----------------------------------|-----------------------------|--------------------------|
| a. <i>Initial contrast</i> | | b. <i>Internal contrast</i> | |
| [s]ein | 'bosom' | bai[z]er | 'to kiss' |
| [z]ein | 'unicolor' | bai[s]ier | 'bear' |
| | | fa[s]on | 'shape' |
| c. <i>Neutralisation</i> | | mai[z]on | 'house' |
| dé[z]accord | 'disagreement' | | |
| dé[z]habitué | 'not used to' | d. <i>Blocking</i> | |
| tran[z]uranien | 'transuranian' | re[s]aluer | 'greet again' |
| vous nou[z] aidez | 'you _{pl} help us' | re[s]onger | 'dream again' |
| il vou[z] a vu | 'he has seen you _{pl} ' | je le [s]ent | 'I hear/feel it' |
| | | elle ne [s]e taît | 'she doesn't keep quiet' |
| e. <i>No voicing assimilation</i> | | | |
| tran[sv]aluation | 'transvaluation' | | |

Similar pattern (i.e., intervocalic voicing of prefix-final consonants or intervocalic word-final consonants) is observed in other languages like Sanskrit (Selkirk 1980), Breton (Krämer 2000), Serbo-Croatian (Mascaró and Wetzels 2001), ...)

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Tuscan Italian

- | | | | |
|-------------------------------|-------------|--------------------------|----------------------------|
| a. <i>No initial contrast</i> | | c. <i>Neutralisation</i> | |
| [s]apore | 'flavour' | di[z]-onesto | 'dishonest' |
| [s]ale | 'salt' | di[sp]iacere | 'displeasure' |
| *[z]ale | | di[zg]razia | 'misfortune' |
| b. <i>Internal contrast</i> | | d. <i>Blocking</i> | |
| ca[z]one | 'dairy' | a-[s]ociale | 'asocial' |
| ca[s]one | 'big house' | tran[ts]alpino | 'transalpine' |
| ca[ss]one | 'big box' | telefonati#[s]i | 'having called each other' |
| | | lo [s]apevo | 'I knew it' |

(2) Lombardian 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[ss]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) | | |

(3) 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. di[z]-uguale | 'unequal' | c. di[sp]iacere | 'displeasure' |
| bi[z]-entusiastico | 'extremely enthusiastic' | bi[sk]ugino | 'second grade cousin' |
| mi[z]-uso | 'misuse' | mi[sk]oncezione | 'misconception' |
| e[ks]-amico | 'ex-friend' | e[ksk]ollega | 'ex-colleague' |
| tran[z]-atlantico | 'transatlantic' | tran[sp]olare | 'transpolar' |

→ Voicing of *s* is completely predictable in Lombardian.

Trento is like Lombardian except that in Trento postnasal *S* is always voiced while *S* following other sonorants (*r, l*) is voiceless (Bertinetto 1999). In all other varieties *S* is voiceless after all sonorants, except after nasal in prefix *trans-* in Lombardian.

(4) Abruzzese

- | | | | |
|--------------------|----------------------------|------------------|---------------|
| a. ca[ss]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' |

(8) The typology of contrast

	word-internal interV contrast	initial contrast	interV prefix contrast	postnasal contrast
Trento	-	-	-	-
Abruzzese	-	-	-	-
Lombardian	-	-	-	-
Tuscan	+	-	-	-
French	+	+	-	-
Veneto	+	+	+	-

3 AN ANALYSIS AS CONSTRAINT RERANKING

(9) Constraints

- a. IDENTONSET1: The first onset of the root is faithful to its underlying feature.
- b. IDENT: Surface consonants are identical to their underlying correspondent.
- c. CONTIGUITY: Don't make changes inside strings of segments which are contiguous in the input.
- d. *z
- e. *(VsV)_{pwd}

Constraint (9e) applies only to vowels which are in intervocalic position inside a prosodic word.

(10) Prosodic organisation (di[z]onesto)_{pwd} a([s]ociale)_{pwd}

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

The portion of S₁ standing in correspondence forms a contiguous string.

Domain (℞) is a single contiguous string in S₁.

℞ /xyz/ → xz

(12) O-Contiguity ("No intrusion", McCarthy & Prince, 1995): ℞ /xz/ → xyz

(13) Abbreviation: (11)+(12) = S-CONTIG: Segmental contiguity.

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

a.

X	X	X		X	X	X	
/F ₁	F ₂	F ₃ /	→	F ₁		F ₃	℞

b.

X	X	X		X	X	X	
/αF ₁	βF ₂	δF ₃ /	→	αF ₁	-βF ₂	δF ₃	℞

(15) F-Contiguity and markedness

		F-CONTIG	*Z
i.	a. /buz/ ~ buz		*!
	☞ b. /buz/ ~ bus		
ii.	c. /zi/ ~ zi		*!
	☞ d. /zi/ ~ si		
iii.	☞ e. /kazo/ ~ kazo		*
	f. /kazo/ ~ kaso	*!	

(For a more elaborate discussion of the constraints involved see Krämer 2003, 2005.)

(16) Rankings

Veneto: IDENTONSET1, CONTIGUITY, IDENT >> *VsV, *z
 French: IDENTONSET1, CONTIGUITY >> *VsV >> IDENT >> *z
 Tuscan: CONTIGUITY >> *VsV >> *z >> IDENTONSET1, IDENT
 Lombardian: *VsV >> *z >> IDENTONSET1, CONTIGUITY, IDENT
 Abruzzese: *z >> *VsV, IDENTONSET1, CONTIGUITY, IDENT

3.1 Smuggling in a laryngeal contrast through the backdoor

Lombardian:

[ts] is not allowed, and [z] is not allowed word-initially;
 Lombardian speakers learning German realise German initial [z] frequently as [dz]
 (and, interestingly, Padovans realise Northern Italian initial [dz] as [z].)

(17) Gaps in the consonantal system in word-initial position in Lombardian

	labial		anterior			posterior		dorsal	
voiceless	p	f	t		s	tʃ	ʃ	k ^j	k
voiced	b	v	d	dz		dʒ		g ^j	g

(18) "A feature is distinctive in a given segment if it is required to distinguish that segment from another." (Clements 2001: 78)

(19) Underlying representations for (17)

	[labial]		[coronal]				[dorsal]	
					[palatal]		[palatal]	
	/p/	/f/	/t/	/s/	/tʰ/	/ʃ/	/c/	/k/
[voice]	/b/	/v/	/d/	/z/	/dʰ/		/ɟ/	/g/

Conclusion: Lombardian does not have any 'true' affricates. The posterior affricates encode an additional place of articulation of stops, the anterior voiced affricate is the realisation of the voiced fricative.

3.2 How to fake a laryngeal contrast

(20) Veneto emergent voicing contrast

- | | | | |
|---------------|----------------------|----------------------|---------------|
| a. ca[s]a | 'box, cash register' | e. di[z]-onesto | 'dishonest' |
| b. ca[z]a | 'house' | f. tr[ã̃s]-alpino | 'transalpine' |
| c. [s]apienza | 'knowledge' | g. e[s]-amico | 'ex-friend' |
| d. [z]ucchero | 'sugar' | h. [vakã̃se] vacanse | 'holidays' |

(a) derived by degemination (cf. Standard: ca[ss]a)

(c) derived by deaffrication (cf. Lombardian Standard: [dz]uchero)

(f,g) derived by deletion of preceding consonant (cf. tra[ns]alpino, e[ks]amico)

Intervocalic [z] in all cognates as Lombardian = intervocalic voicing applies.

All intervocalic [s] are derived from underlying geminates or C+S clusters.

Intervocalic voicing opaquely interacts with consonant deletion/coalescence.

Historical coincidence?

Degemination applies to new words; intervocalic voicing applies in new forms (e.g., diminutive of 'bus' is regarded as strange but realised as [buzino])

Deleted underlying nasals can be retrieved by nasalisation of preceding vowel.

There is no phonetic cue (found yet) to underlying geminates on preceding vowel.

(21) Veneto

Sono [al'fɾe:do]. 'I am Alfred.' / 'I am in the cold.'
 (Lombardian: Sono [al'fɾe:do] / [al'fɾe:do])

(22) 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	↓ <i>n.a.</i>	↓ <i>n.a.</i>
4. coda deletion	↓ <i>n.a.</i>	↓ tra.sal.pi.no	↓ <i>n.a.</i>
5. output	↓ dizonesto	↓ trasalpino	↓ asotʃale

Nb.: Since the nasality survives on the vowel a coalescence analysis might be more appropriate than a deletion analysis.

There are several options in OT to account for underapplication (McCarthy 1999, 2002, 2005, Bye 2001, 2005, Bermúdez-Otero to appear etc.).

Choice of the day: Stratal analysis (see Krämer 2003 for a different implementation)

(23) Veneto voicing and geminates part I

Level I	*VsV	INTEGRITY	IDENT	*GEMINATE	*Z
a. //kasa// - kasa	*!				
☞ b. //kasa// - kaza			*		*
c. //kasa// - kassa		*!		*	
☞ d. //kassa// - kassa				*	
e. //kassa// - kasa	*!	*			
f. //kassa// - kaza		*!*			*

The output of level I is the input to level II:

(24) Veneto voicing and geminates part II

Level II	*GEMINATE	INTEGRITY	IDENT	*VsV	*Z
a. /kaza/ - kasa			*!	*	
☞ b. /kaza/ - kaza					*
c. /kassa/ - kassa	*!				
☞ d. /kassa/ - kasa		*		*	
e. /kassa/ - kaza		*	*!		*

(25) Veneto voicing in prefixes part I

Level I	//dis- onesto//	*VsV	IDENT	*Z
a. disonesto		*!		
☞ b. dizonesto			*	*

(26) Veneto voicing in prefixes part II

Level II	/dizonesto/	IDENT	*VsV	*Z
a. disonesto		*!	*	
☞ b. dizonesto				*

(27) Veneto blocking of voicing in prefixes part I

Level I	//trans-alpino//	*VsV	INTEGRITY	IDENT	*Z	CODACOND
☞ a. tran.sal.pi.no						*
b. tran.zal.pi.no				*!	*	*
c. tra.sal.pi.no	*!	*				
d. tra.zal.pi.no		*		*!	*	

(28) Veneto blocking of voicing in prefixes part II

Level II /trans-alpino/	CODACOND	INTEGRITY	IDENT	*VsV	*Z
a. tran.sal.pi.no	*!				
b. tran.zal.pi.no	*!		*		*
c. tra.zal.pi.no		*	*!		*
☞ d. tra.sal.pi.no		*		*	

With reference to Lexicon Optimization one might argue that the input geminates and nasals assumed here will finally be stored as underlyingly short and as nasal vowels, respectively.

As inputs to the grammar these would result in different outputs: *[tra.zal.pi.no]

Hence: learners have to store underlying nasals and underlying geminates.

However, the potential contrast /kasa/ vs. /kaza/ is completely neutralised.

Veneto has a hidden length contrast preserved at least in the coronal fricative.

The only position in which Veneto has a voicing contrast /z/ vs. /s/ is root-initial.

(29) The typology of laryngeal contrast

	word-internal interV contrast	initial contrast	interV prefix contrast	postnasal contrast
Trento	-	-	-	-
Abruzzese	-	-	-	-
Lombardian	-	(-) +	-	-
Tuscan	+	-	-	-
French	+	+	-	-
Veneto	(+) -	+	(+) -	-

4 CONCLUSION

☆ Romance varieties differ w.r.t. constraint rankings.

☆ Differences in contrast systems can be derived via constraint reranking, that is reflected in synchronic grammar and are not necessarily surface results of historical shifts.

☆ Things are not always what they look like: Surface contrast does not necessarily imply the same contrast at the lexical level, even in OT.

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