

"Studi linguistici sul mòcheno: definire e acquisire un sistema in variazione"  
Trento, 6-7 novembre 2012

## Aspetti fonologici del mòcheno

Birgit Alber , Università di Verona  
birgit.alber@univr.it

### 1. Mòcheno phonology

#### 1.1 Desiderata

A description of the synchronic system

- phoneme inventory (vowels, consonants)
- productive phonological processes
- prosodic structure (syllable structure, stress, etc.)

#### 1.2 Existing descriptions/data sources

- **traditional dialectology**: Schweizer 2008 [1951/1952], Kranzmayer (1956)  
diachronic approach => impossible to reconstruct phoneme inventory.
- **modern description of Mòcheno phonological system**: Rowley 1986  
modern, exhaustive, based on accurate field-work; applied to development of Mòcheno orthography (Alber, in press, Rowley, in press, Brünger, in prep.)
- **own fieldwork 2011-2012**: on partial aspects of the phonological system (obstruents)  
Alber (2011), Alber (in press)

### 2. Phoneme inventory

#### 2.1 Vowels

data: (my interpretation of Rowley 1986)

##### (1) Vowel system - Mòcheno

	front	central	back
high	i, i:		u, u:
mid	e, e:, ε, (ε:)		o, o:, α, (α:)
low		a, a:	

- height: high, mid low
- front/back
- tenseness (in mid vowels)
- length

- /ε:/ only in loans: [kə'fε:] (Rowley 1986: 92)

- /α:/ very rare (Rowley 1986: 93)

- (2) Contrastive nasalization  
[mai] vs. [mãĩ] 'heavy hammer, my'

- (3) Vowel inventory - Tyrolean, Meran (Alber 2010, Bauer 2011)

	front	central	back
high	ɪ, i:		ʊ, u:
mid	e, e:, ε		o, o:, ɔ
low		a, a:	

Same distinctions except for length distinction in mid, lax vowels (not highly functional in Mòcheno, either) and nasalization

- (4) Diphthongs - Mòcheno

/ia/ /ua/ /εa/ /ɔa/ /ai/ /au/ /oi/ /ei/

Diphthongs - Southern-Bavarian, Meran (adapted from Bauer 2011)

/ia/ /ua/ /εa/ /ɔa/ /ai/ /au/ /ou/ /ui/

### Characteristic features of the Mòcheno vowel system:

- similar inventory as other Southern-Bavarian varieties
- no distinctive rounding (as other Bavarian varieties)
- length distinctions (differently from surrounding Romance varieties)
- nasal vowels (not typically Bavarian, but not unheard of, e.g. dialect of Ulten, South-Tyrol)

## 2.2 Consonants

data: mostly Rowley (1986); own fieldwork on obstruents 2011-12

- (5) Consonant inventory - Mòcheno

	labial	alveolar	postalveolar	palatoalveolar	palatal	velar	glottal
stops	p, b	t, d				k, g	
fricatives	f, v	s, z	ʃ, ʒ	ʃ, (ʒ)		x	h
affricates	pf	ts		tʃ (dʒ)		k <sup>x</sup>	
nasals	m	n				(ŋ)	
laterals		l					
trills		r					
glides	(w)				j		

- [w, ʒ, dʒ, ŋ]: rare or in Italian loans

- /k/ ~ /k<sup>x</sup>/: distinct phonemes: [bɛk], 'breadloaf' vs. [bɛk<sup>x</sup>], 'away'. (Rowley 1986: 213)

- /s/ ~ /ś/ ~ /ʃ/: [mist], 'he measures' vs. [miśt], 'manure' vs. [miʃt], 'he mixes' (in Vlarotz, Oachlait, allophonic in Palai, cf. Rowley 1986; 128, 134)

Historical correspondence:

/s/ < mhd. <ʒ> < /t/ (Zweite Lautverschiebung)

/ś/ < mhd. <s>

/ʃ/ < mhd. <sch>

## (6) Consonant inventory - Tyrolean, Meran (Alber 2010, Bauer 2011)

	Labial	Alveolar	Postalveolar	Palatal	Velar	Uvular	Glottal
stops	p, b	t, d			k, g		
fricatives	f, v	s	ʃ		x		h
affricates	pf	ts	tʃ		k <sup>x</sup>		
nasals	m	n					
trills						R	
laterals		l					
glides				j			

**2.3 Characteristic features of Mòcheno consonant system:**

- Bavarian features: velar series (k ~ k<sup>x</sup> ~ g)
- conservative features: sibilants /s/ ~ /s̺/ ~ /ʃ/
- differences wrt Tyrolean: /z/, alveolar realization of /r/, marginally [w, ʒ, dʒ, ɲ],

**3. Phonological processes****3.1 Distribution of voice in fricatives: word-internally** (Alber, in press)

## (7) Mòcheno and Cimbri (Lusern): correlation between syllable weight and fricative voicing

		Mòcheno	Cimbri (Lusern) <sup>1</sup>
after heavy syllables	<b>voiced</b>	ʃlo:vŋ      'to sleep'	tra:ven      'beam, pl.'
		bervŋ      'to throw'	helvŋ      'to help'
		bi:zŋ      'meadow pl.'	di:zŋ      'this'
after light syllables	<b>voiceless</b>	lef̥l      'spoon'	ʃafŋ      'to order'
		bisŋ      'to know'	basŋ      'water'

**Explanation** (van Oostendorp 2003, Alber 2011, Alber, in press)

- process of intersonorant voicing (ISV)
- blocked by the *stress-to-weight principle* (SWP) and a ban against voiced geminates (\*GEMVC).

(8) Intersonorant voicing (ISV):                  obstruents between sonorants must be voiced  
 = *Althochdeutsche Spirantenschwächung* (s. Paul (1881 [2007]: 122, 154f.).

(9) OHG/MHG: presonorant voicing of /f/  
 <velt>    'field'  
 <hof - hoves>                                        'court, court gen.'  
 <wolf - wolves>                                    'wolf, wolf gen.'

(10) Stress-to-Weight-Principle (SWP):      Stressed syllables are heavy  
 (Prince 1990)  
 SWP:            'CV:            o.k.  
                   'CVC            o.k.  
                   'CV                \*

<sup>1</sup> Data for Cimbri (Lusern) is from Tyroller (2003).

- (11) \*GEMVC: no long voiced obstruents  
(Hayes&Steriade 2004)  
\*GEMVC: \*bb, \*dd, \*gg, \*vv, \*zz

- (12) One way to satisfy the SWP: lengthen the following consonant:

[léf,fl]      'CVC.CV  
                  └─

long C closes preceding syllable

= > fricative has to be voiceless because of \*GEMVC

- (13) Correlation between vowel length and fricative voicing in Mòcheno and Cimbrio (Lusern) in contexts between sonorants

		SWP	*GEMVC	ISV
after heavy syllables (V:)	a. *'V : . s n	o.k.	o.k.	NO
	b. 'V : . z n	o.k.	o.k.	o.k.
after light syllables (V)	c. 'V s . s n	o.k.	o.k.	NO
	d. *'V z . z n	o.k.	<b>NO</b>	o.k.
	e. *'V . z n	<b>NO</b>	o.k.	o.k.

- (14) Standard German: SWP and \*GEMVC, without ISV: ambisyllabic Cs after short vowels  
(Wiese 1996: 36)

Wippe	rare: Robbe
Mitte	rare: Widder
Jacke	rare: Bagger
Affe	*[vv]
Ra[ss]el	*[zz]

### 3.2 Distribution of voice in fricatives: word-initially

- (15) Word-initial context: effects of historical presonorant voicing in the core part of the lexicon

	Word-initial frics	St. German cognate	
Mòcheno	viʃ	fɪʃ	'fish'
	zun	zɔnə	'sun'
Cimbrio (Lusern)	varbe	fæbə	'color'
	za:ge	ze:gə	'saw'

But is voicing of fricatives still productive, in word-initial contexts?

#### (16) Some arguments against productive fricative voicing, word-initially

- loanwords often preserve initial /f, s/, even when they are nativized otherwise:
  - Mòcheno: the most recent Mòcheno dictionary counts 30 entries under <f> (most of them loanwords (s kloa' be.be, 2009)
  - Cimbrio (Lusèrn): *furbət* 'clever', *sitfá:ro* 'sink' (Tyroller 2003: 40, 42) [sometimes even word-medially after V:]
  - Cimbrio (Giazza): *servirn* 'to serve' (Costanzi 2012: 76)
  - Cimbrio (Roana): *sikel* 'bucket', *sorka* 'bush'

- initial, etymological [pf] is often simplified to [f]
  - Cimbrio (Lusern): *fan* 'pan' (Tyroller 2003: 40)
  - Cimbrio (Roana): *fai*fan 'to whistle'
- unpalisble typological configuration in Cimbrio (Giazza, Roana), otherwise:
  - word-medial contrast after long vowels
  - neutralization to voiced word-initially.
 This is not what you normally find in the languages of the world.

### 3.3 Distribution of voice in obstruents: word-finally

#### Final devoicing in Cimbrio

(17) Cimbrio (Giazza) (see Costanzi 2012, Alber/Rabanus/Tomaselli, in press)

/b/ --> [p]	traiban	traip	'to chase away, inf., imp.'
/d/ --> [t]	reidan	reit	'to speak, inf., imp.'
/g/ --> [k]	ta:ge	tak <sup>x</sup>	'day, pl., sg.'
/v/ --> [f]	ri:van	rif	'to stop inf., imp.'
/z/ --> [s]	hauzar	haus	'house pl., sg.'

#### Final devoicing in Mòcheno?

(18) Mòcheno (Palai)

/b/ --> [p]	---	---	
/d/ --> [t]	---	---	
/g/ --> [k]	---	---	'
[v] --> [f]	ri:vŋ	ri:f	'to stop inf., imp.'
	ʃlo:vŋ	ʃlo:f	'to sleep, sleep n.'
[z] --> [s]	haizəɾ	haus	'house pl., sg.'
	bi:zŋ	bi:s	'meadow pl., sg.'
	viazɫ	vuas	'foot, dim., foot sg.'

- in Palai final stops are often deleted ([pɛr], 'Berg', 'mountain') or not released ([ʃpaibŋ, ʃpaibʔ]), therefore final devoicing in stops cannot be detected
- data from Vlarotz more promising?

#### Final devoicing in Romance contact varieties

(19) Trentino, spoken by Mòcheno speaker

W-initially	W-medially	W-finally	
pasár ~ bazár	dəpo ~ gəbo	---	'pass, kiss, after, hunchback'
tər ~ dar	mati ~ nadi	fredi → fret	'take, give, mad, born, cold m.pl./sg.'
kaza ~ gat	paka ~ tega	longi → lonk	'house, cat, slap, blow, long m.pl./sg.'
fən ~ ven	bafi ~ fever	novi → nof	'hay, come, moustache, fever, new m.pl./sg.'
sal ~ za	kasa ~ kaza	buzi → bus	'salt, already, house, hunt, hole pl./sg.'

## Arguments against Final Devoicing in Trentino as a contact phenomenon

(Alber, Rabanus&Tomaselli, in press)

(20) **Markedness:** lack of contrasts in final position is an unmarked structure

- unmarked typologically: many languages have FD, none has final voicing (Kiparsky 2008, cf. with Blevins 2006)
- unmarked structure emerging in L1 acquisition (Kiparsky 2008)
- unmarked structure emerging in L2 acquisition (Wang 1995, Broselow et al. 1998)
- contrasts in final position are marked, because less easily perceived (less acoustic cues) (Steriade 2009)

(21) **Geographic distribution of final devoicing in Italian dialects:** not only in contact situation (see also Rohlfs 1966: §300-302)

Final devoicing takes place also in varieties which are not in contact with German dialects, e.g. Emilia Romagna and some Southern varieties.

Final devoicing in Italian dialects correlates with historical vowel apocope: a newly created marked structure is resolved via neutralization of voicing contrasts.

### 3.4 Other phonological processes

**Centralisation and rounding:** Rowley (1986: 73)

- centralisation and rounding of /i, e, o/: mainly in Palai, Auservlarotz, Oachlait

- generally rounding of vowels adjacent to labial consonants and /r/, e.g. [vym̩f̩e], 'five' (Rowley 1986: 75).

**Umlaut (today: morphological function)**

(22) Umlaut - Mòcheno (Palai)

[au] → [ai]	haus	haizər	<i>plural</i>
[o:] → [e:]	gro:s	gre:zər	
[ua] → [ia]	vuas	viazl̩	<i>diminutive</i>
[o:] → [a:]	gro:s	gra:zl̩	

cf. Rowley 1986: 184: *Umlaut* is used for plural, diminutives, comparatives, derivational suffixes (e.g. -ig), just as in Standard German.

### 3.5 Characteristic features of Mòcheno phonological processes

- Typical Germanic distribution of voiced/voiceless obstruents according to the stress-to-weight principle (SWP), respecting categorically the ban on voiced long obstruents (\*GEMVC)
- Intersonorant Voicing of fricatives: a historical process, preserved and extended to all fricatives
- final devoicing - similar to Romance contact varieties, but cannot be interpreted as a contact phenomenon
- Umlaut: as in German varieties



## Bibliografia

- Alber, B. (in press). Die deutschen Sprachinseln der Zimbern und Fersentaler in Norditalien. Konservativität, Innovation und Kontakt im Lautsystem, Jenaer Beiträge zur Romanistik.
- Alber, B. 2012. Toponomastica e ortografia mòchena. Atti del Convegno Cultura Minoritaria e Toponomastica, S. Anna, Vallarsa.
- Alber, B. 2010. Phonologische Aspekte der Tiroler Varietäten, talk-handout, Università di Bolzano.
- Alber, B. 2011. Past Participles in Mòcheno: Allomorphy, alignment and the distribution of obstruents. In: M. Putnam (ed.). Studies on German-Language Islands. John Benjamins, Amsterdam. 33-63.
- Alber, Birgit & F. Lanthaler. 2005. Der Silbenonset in den Tiroler Dialekten. In: Di Meola, C./Hornung, A./Rega, L. (ed.). Perspektiven Eins. Akten der 1. Tagung Deutsche Sprachwissenschaft in Italien. Istituto Italiano di Studi Germanici, Roma, 75-88.
- Alber, B., S. Rabanus & A. Tomaselli (in press). Contatto linguistico nell'area alpina centro-meridionale, Quaderni di Lingue e Letterature, Facoltà di Lingue, Verona.
- Bauer, E. 2011. Das Phonemsystem des Burggräfler Dialektes. M.A.-thesis, University of Verona.
- Blevins J., 2006. A Theoretical Synopsis of Evolutionary Phonology, Theoretical Linguistics 32-2, 117-166.
- Broselow, E., S. Chen, & C. Wang. 1998. The emergence of the unmarked in second language phonology. Studies in Second Language Acquisition 20. 261–280.
- Brünger, S. (in prep.). Sprachplanung im Trentino. Standardisierungsprozesse im Fersentalerischen, Fassanischen und Zimbrischen und ihre Akzeptanz seitens der Sprecher. Phil.Diss. Universitäten Jena/Verona.
- Clements, G.N., 1990. The role of the sonority cycle in core syllabification. In: J. Kingston & M. Beckman (eds.), Papers in Laboratory Phonology 1: Between the Grammar and Physics of Speech, 283-333. New York: CUP.
- Costanzi, L. 2012. Stimmhaftigkeitskontraste im Zimbrischen der Dreizehn Gemeinden und im Veronesischen: ein Vergleich. M.A.-thesis, University of Verona.
- Fontana, J. 2012. Das Obstruentensystem des Zimbrischen von Roana: ein Vergleich mit dem Vicentino. M.A.-thesis, University of Verona.
- Hayes, B. & D. Steriade. 2004. Introduction: The phonetic bases of phonological markedness. In B. Hayes, R. Kirchner & D. Steriade (eds.) Phonetically-Based Phonology. Cambridge University Press, Cambridge. 1-33.
- Kiparsky K. 2008. Universals Constrain Change; Change Results in Typological Generalizations. In: J. Good (ed.), Linguistic Universals and Language Change, Oxford University Press, Oxford. 23-53.
- Kranzmayer, E. 1956. Historische Lautgeographie des gesamt-bairischen Dialektraumes. Böhlau, Wien.
- Oostendorp, M. van. 2003. Ambisyllabicity and Fricative Voicing in West Germanic Dialects. In: C. Féry & R. van de Vijver (ed.), The Syllable in Optimality Theory. CUP, Cambridge. 304-337.
- Paul, Hermann. 1881 [2007]. Mittelhochdeutsche Grammatik. 25. Auflage, neu bearbeitet von Thomas Klein, Hans-Joachim Solms, Klaus-Peter Wegera. Max Niemeyer Verlag, Tübingen.
- Prince, A. 1990. Quantitative consequences of rhythmic organization. CLS 26-II: Papers from the Parasession on the Syllable in Phonetics and Phonology, edited by K. Deaton & M. Noske & M. Ziolkowski, 355-398. Chicago Linguistic Society, Chicago.
- Rohlf, G. 1966. *Grammatica storica della lingua italiana e dei suoi dialetti. Fonetica*, traduzione di S. Persichino, Torino, Einaudi.
- Rowley, A. (in press). Über die Akzeptanz normierter Grammatiken als Unterrichtshilfe. Erfahrungen aus dem Fersental. In: I. Geyer (ed.), Wiener Beiträgen zur Sprachinselforschung, edition praesens, Wien.
- Rowley, A. 1986. Fersental (Val Fèrsina bei Trient/Oberitalien)- Untersuchung einer Sprachinselmundart. Max Niemeyer Verlag, Tübingen.
- s kloa' be.be. s kloa' bersntoler beirterpuach. Piccolo vocabolario mòcheno. Das kleine Fersentaler Wörterbuch. 2009. Bersntoler Kulturinstitut/Istituto Culturale Mòcheno.
- Schweizer, B. 2008 [1951/1952]. Zimbrische Gesamtgrammatik. Vergleichende Darstellung der zimbrischen Dialekte. Hrsg. von James R. Dow. Steiner-Verlag, Stuttgart.
- Steriade, D. 2009. The phonology of perceptibility effects: the P-map and its consequences for constraint organization. In: K. Hanson & S. Inkelas (ed.), The Nature of the Word. Studies in Honor of Paul Kiparsky, MIT Press, Cambridge. 151-179.
- Wang, C. 1995. The acquisition of English word-final obstruents by Chinese speakers. Ph.D.diss, State University of New York at Stony Brook, NY.
- Wiese, R. 1996. The Phonology of German. Oxford University Press, Oxford.