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BA Thesis

Come xea, Ele? - Realisations of /l/ in Venetian proper

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Abstract

Unlike its neighbouring varieties of Venetian and its official language, Italian, Venetian proper provides speakers with more than one realisation for its phoneme /l/. A series of phonotactical elements such as syllable structure and prosody inform the choice of one of three possible allophones: [l], [e̦] and [∅].

Due to a serious lack in experimental research on the language of the Venetian lagoon, this exploratory study aims to answer the questions of what this allophony, especially in the case of the vowel glide [e̦], looks like phonetically and of how and why it came about.

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1. Introduction

Venetian (*veneto*) is a Gallo-Italian language spoken in north-eastern Italy. Together with Italian, it is the main language of the Veneto region, although it is also spoken in parts of Friuli-Venezia Giulia and Trentino-Alto Adige. Large communities of speakers outside the area of and surrounding Veneto are found in Brazil, Croatia, Mexico, and Slovenia[1].

5   Venetian shares many segments with the Italian phonemic inventory. However, differences do exist, such as the lack of long consonants in Venetian, a feature shared with other languages of northern Italy (Benincà et al.; 2016). Following are two tables of Venetian phonemic consonant and vowel inventories (adapted phonetic symbols from Lepschy; 1962).

	Labial	**Dental**	**Alveolar**	**Post-alv.**	**Palatal**	**Velar**
Nasal	m		n		ɲ	ŋ
Plosive	p b	t d				k g
Affricate			(t͡s) (d͡z)	t͡ʃ d͡ʒ		
Fricative	f v	(θ) (ð)	s z			
Tap			ɾ			
Approximant	w		l		j	

Table 1. Consonant inventory of Venetian across all varieties. Elements between parentheses express variations across regions and time (while the dental fricatives may still be used only in some areas within the Veneto region, they have been disappearing for decades in favour of the alveolar affricates). Confidently speaking of a phonemic inventory is not possible, as a comprehensive phonological study of minimal pairs and underlying forms has not yet been conducted on Venetian.

	Front	**Central**	**Back**
Close	i		u
Close-mid	e		o
Open-mid	ɛ		ɔ
Open		a	

Table 2. Vowel inventory of Venetian across all varieties. The same issue raised for Table 1 applies.
No long vowels exist at the phonemic level. Any two vowels can be combined into diphthongs with the exceptions of /e/ and /ɛ/ or /o/ and /ɔ/. When either /i/ or /u/ are the first vowel in the diphthong, they are realised as [j] and [w], respectively.

10   The variety of Venetian spoken in and around the city of Venice (*veneziano*), henceforth referred to as Venetian proper, differs phonetically from all other varieties within the Veneto region in several ways. However, the present paper will focus on one specific aspect: the alveolar lateral approximant /l/, based on previous literature and the present

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[1] (https://www.ethnologue.com/)

research seems to have three allophonic variants: [l] in coda position, a semivowel [e̯]
between two non-front vowels, and a zero phone [Ø] preceding or following a front vowel.
Following are examples of each allophone in word-initial, -medial and final position.

(1)

a.	/folpo/[2]	[ˈfol.po]	'octopus'
b.	/el/	[el]	'the(M.SG)'
c.	/solo/	[ˈso.e̯o]	'only/alone.M.SG'
e.	/la/	[e̯a][3]	'the.F.SG'
f.	/vela/	[ˈve.Øa]	'sail'

(1a./c./f. from Tomasin, 2010: 729; 1b. and e. from Pecoraro, present research)

Despite the phenomenon being known to both speakers and academics, phonetic and
phonological literature is scarce. The most comprehensive historical account of this
allophony is to be found in Tomasin (2010), where the phenomenon is briefly described
phonotactically before being examined in a synchronic as well as in a diachronic search for
its earliest appearance in literary texts by poets and authors and linguistic texts by erudites
from the Veneto region as well as abroad. Based on these texts, he dates the emergence of
/l/'s allophonic variants to the mid-to-late nineteenth century and notes their use in cities and
areas neighbouring Venice. The author concludes by discussing the contemporary spelling
conventions as well as proposing the use of <l> for all variants.

Up to the current study, experimental data of the phenomenon was non-existent. The
primary if not sole articulatory description of the intervocalic allophone of (1c) is that of
Lepschy (1962: 18), who states "It is not a lateral any longer. The air flows through a hollow
in the central part of the tongue blade, which has raised to the soft palate, while the two sides
of the tongue blade touch the sides of the upper teeth"[4] The phonetic symbol of choice for
Lepschy, who does not make use of the IPA but rather the Ascoli-Merlo system (Lepschy;
1962: footnote 1), is that of [l̨] ([l] symbolises the alveolar lateral approximant as in the IPA,
while the diacritic's meaning is twofold, as it expresses the glide nature of the actual sound

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[2] The underlying phonological transcription is broad and impressionistic, as it is only aimed at bringing the
attention to the place of the sound that is occupied by the, intuitively labelled, allophones. See the note for Table
1.
[3] Also [ea]. As will be explored below, whether or not the phone is realised as a full [e] vowel depends on
whether the syllable has primary or secondary/no stress.
[4] Translation of Zanin (2016).

and the fact that the whole sound is different from /l/), while Canepari (1976) opts for an italicised [*j*] which, as he explains, represents a phone that stands approximately between the "palatal unrounded semi-vowel" and the "velar rounded one". Neither author provides any data to support their claims, although Canepari (1976) does include a vowel chart and palatograms for [j] and the aforementioned [*j*]. Crucially, however impressionistically useful, none of the figures he uses seem to refer to either previous or his own data. Without data to examine, translating Lepschy's symbol into an IPA equivalent is not possible. It is therefore assumed that the symbols used by the two authors stand for the same sound as is present in today's Venetian proper (the data gathered for the present paper is used as evidence of the modern realisations of the phone a of 2022).

As seen above, Tomasin (2010) uses the symbol [e̯] in line with the spelling <e>, which many present-day speakers use in writing (with an alternative spelling <ł>; for a discussion see Tomasin; 2010). For this reason, as well as the native speaker intuition of the author of the present paper, Tomasin's (2010) choice [e̯] as the symbol used for the intervocalic allophone of (1c) will employed throughout the rest of this thesis.

Similarly to up-to-date and systematic articulatory analyses, acoustic analysis of experimental data (or of any existing incidental data) is also missing from the literature. This phonetic research gap is thus the starting point of the current study, which aims to answer the question of what the acoustic features of the allophones of /l/ are in Venetian proper. Turning to phonological analysis, superficial phonotactic descriptions of the phenomenon are present in the literature (Lepschy, 1962; Canepari 1976; Tomasin, 2010). However, no explanation is given regarding the place of the phoneme within the syllable. In Indo-European languages, L-vocalisation is commonly found in coda position (for Romance languages, see Recasens, 1996; for English, see Johnson & Britain, 2007). The examples given above, on the contrary, seem to indicate that the allophonic change occurs when /l/ is in onset position.

The present research consists of a documenting effort of the allophonic vocalisation of /l/ in the different phonotactic contexts shown above, in order to corroborate or falsify what has been said about the phenomenon so far and to possibly include different contexts in which the vocalisation occurs.

As for the other intervocalic allophonic variation of (1f), i.e. the zero phone [∅], unsurprisingly little is said in the literature. From a phonological point of view, this allophone is probably a phonotactically informed variant of the allophone in (1c) For this reason, the present thesis will instead focus primarily on [e̯].

1.1 Research questions

The primary interest of the present study, which was inspired by the inconsistent use of phonetic symbols to describe the intervocalic substitute sound for /l/, is in the actual phonetic features of said sound. Thus, the research question is: what are the phonetic features of the glide allophone of /l/ in Venetian proper?

Additionally, this exploratory study will also cover the topic of how common the sound is, in what phonetic contexts it is to be found and a preliminary phonological explanation for the phenomenon will be given, following the results of the experiment.

2. Methodology

In this section, the methodology used for both tasks of the experiment will be introduced. The description of the stimuli, materials and the procedure is as detailed as possible, in the hope that further research can replicate the experiment and improve the amount of data available to experimental research on Venetian.

2.1 Participants

The criteria for participation as well as the procedure of the present research was approved by the Ethics Committee at the University of Amsterdam.

Sampling was carried out among the author's personal social network and through posting flyers around the several campuses of the Ca' Foscari University of Venice. Seven people participated in the experiment, four females and three males of 56 or older (mean age: 63.2; median age: 61). Of these seven participants, one was not counted as they took part in the pilot version of the experiment and one was discarded after the experiment, as they failed to meet the requirement of being a speaker of Venetian proper, on top of the recording being of inaudible quality due to outside noise.

An attempt was made to control for linguistic influence by only allowing people born in Venice who spend at least 12 hours on the island daily (e.g. for work- or family-related purposes) to take part in the experiment. If the influence of different varieties of Venetian are difficult to control for, simultaneous bilingualism with or L2 transfer from Italian is virtually impossible to isolate. The only measure taken in this regard was the use of Venetian proper by the researcher when interacting with participants before as well as during the experiments.

The present research not being funded, compensation was not available for those who took part in the research.

2.2 Stimuli

95 The stimuli were divided in two sets: the first one was used during a scene-description task and the second one during a picture-naming task. The first set comprised six black and white scenes of famous fables from a colour book and four realistic watercolour drawings of everyday activities in Venice from the graphic novel 'Venice' by Jiro Taniguchi. The second set consisted of twelve images with four line-drawings each. Both sets included pictures

100 representing both target words, i.e. words containing /l/ which could potentially be realised as [ḛ], as well as filler words, i.e. words that do not contain /l/.

The stimuli chosen for the picture-naming task, which was more easily controlled for, counted twenty-one target words and twenty-seven filler words. The conditions in which /l/ appeared in the target words was one of the following:

Condition	Description	Example from stimuli set
#cF	Word-initial position, followed by a front vowel.	/leto/ 'bed'
#cB	Word-initial position, followed by a back* vowel.	/lampadina/ 'light bulb'
IV-FcB	Intervocalic position, following a front vowel and preceding a back vowel.	/ombɾela/ 'umbrella'
IV-BcF	Intervocalic position, following a back vowel and preceding a front vowel.	/ot͡ʃali/ 'glasses'
IV-BcB	Intervocalic position, between two back vowels.	/papagalo/ 'parrot'
Cod-PrF	Coda position, preceded by a front vowel.	/delfiŋ/ 'dolphin'
Cod-PrB	Coda position, preceded by a back vowel.	/folpo/ 'octopus'
CompOns	Complex onset.	/trit͡ʃiklo/ 'tricycle'

Table 3. Conditions considered before the start of the experiment.
*Since the allophone of the (1f) type occurs exclusively in the vicinity of a front vowel, all other vowels were considered "back" as a more convenient label than "non-front".

105 As is noticeable, no IV-FcF condition was included. This is because, in very general terms, such a context is applicable mainly to plural nouns and adjectives. In the stimuli used for the picture-naming task, none of the four subjects showed in each image represented the same thing, therefore causing the lack of the condition. This design flaw could easily be fixed in future research.

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2.3 Materials

A Blue Yeti USB microphone, plugged in a Lenovo Yoga Slim 7 15IMH05 was used to record participants. All recordings were carried out on Audacity and annotated and analysed on Praat.

2.4 Procedure

Participants were recorded either in their own homes or in the author's home. The microphone would be positioned on a table, 5-10 centimetres away from the participants and the distance from the laptop would be adjusted on an individual basis, so that the participant could see the pictures clearly. During both tasks, participants were required to speak only Venetian proper.

In the first part of the experiment, participants were presented with the first set of stimuli and were asked to describe in as much detail what they saw, both in terms of characters and objects and events. After they were finished describing one scene, they were instructed to press on the right arrow key on the laptop to proceed to the next picture. This task was intended as a controlled substitute for natural speech. After the first task was concluded, participants could choose whether to take a break or continue with the second task.

In the second part of the experiment, participants were asked to perform a picture-naming task. In it, they were shown pictures from the second set of stimuli, which they were asked to name. After naming all subjects within one picture, they were requested to click the right arrow key on the laptop to proceed to the next picture.

After the second task was over, the experiment was concluded. A background questionnaire in the form of a private message was sent to participants via WhatsApp, to gather additional information about transfer and/or overall influence from Italian and/or neighbouring varieties of Venetian, as well as to provide further research with some preliminary data about the role of age and sex (or lack thereof). The data of interest regarded were the following:

- Age;
- Sex;
- Place of birth;
- Place of residence;

- If place of residence ≠ Venice, for how long the place of residence has been outside of the island;

- How often Venetian was used in everyday life, as compared to Italian.

3. Results

135   Next are a number of sections exploring the steps following the data collection phase. Following both a Praat annotation process and the gathering of phonetic values through a Praat script (see 7. Appendix) carried out for all recordings, the number of realisations of /l/ of the lateral approximant and front vowel glide types are counted and compared across participants and conditions. Finally, the phonetic make-up of the front vowel glide is

140   analysed in terms of F1 and F2 values, to assess the acoustic nature of the phone and conclude whether [e̞] is indeed the optimal IPA symbol for it.

       Due to the limited number of participants (five), the results of the present study cannot be considered to be statistically significant. Having said that, what has been found seems to point in the direction of positive results regarding the accuracy of the strategies

145   employed in the conditions presented in Table 3. While further research would benefit from the generalisations that inferential statistics makes possible, the following subsections will look at the resulted gathered through the lens of descriptive statistics.

3.1 Annotation

Following data collection, recordings were manually annotated on Praat, at the phonetic level – with a narrow phonetic transcription to gather as much information on the language as

150   possible – and lexical level, with an orthographic transcription of the target word. A third tier was used to label whether the realisation of /l/ was word-initial, medial, or final. Both the second and third tiers were employed mainly to accelerate the data analysis process.
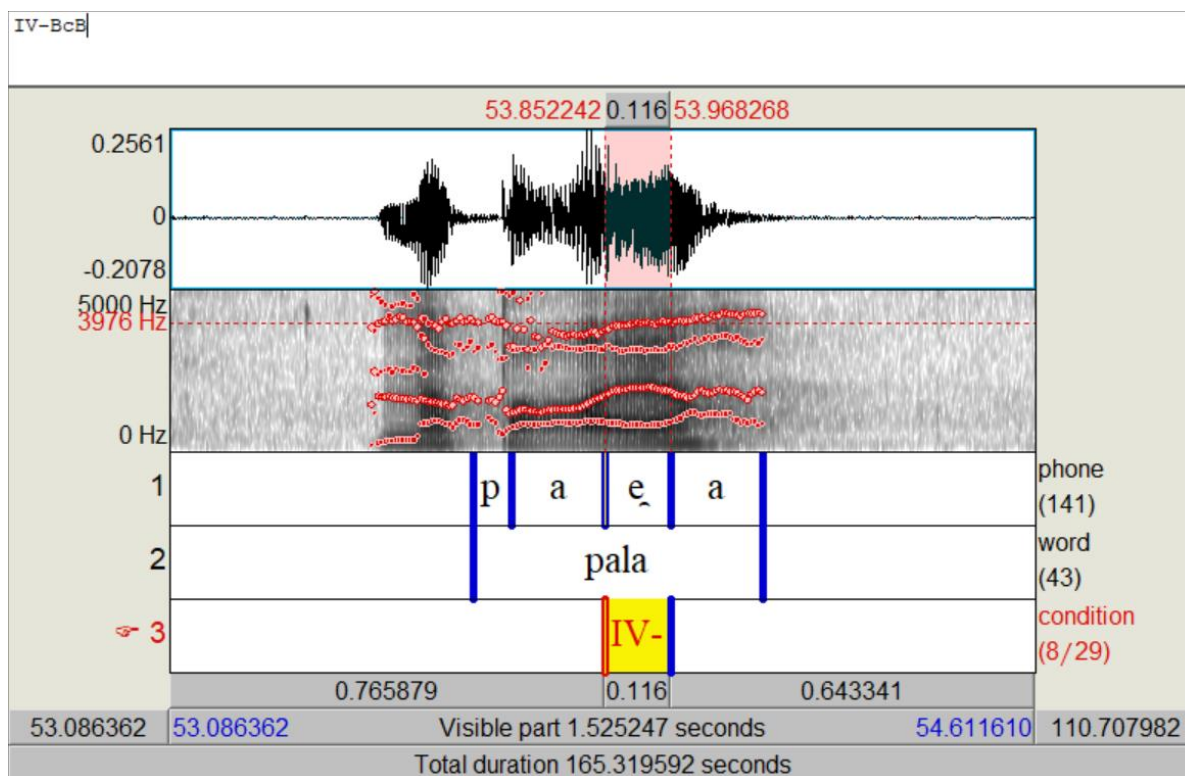
Figure 1. Example of the annotating process. In this case, the intervocalic /l/ was realised as [ɛ̞].

Due to the non-realisation allophone being more complicated to annotate – as the front vowel that caused it did not seem to vary in length or in any manner that could make it possible to annotate anything other than the vowel itself – and the focus of the research being on the realisation of the vocalic type, target words were counted if /l/ was either realised as [l] or [ɛ̞]. The relevant conditions were thus #cF, #cB, IV-BcF, IV-BcB, Cod-PrF, Cod-PrB and CompOns. The words of the condition IV-FcB, which were originally part of the stimuli set, were consistently produced with a non-realisation of /l/. This was expected, but contrasted with the condition IV-BcF, which was indeed included in the results as the word *altalena* 'swing' was produced with [l] by two participants.

3.2 Praat Script

After the annotation phase, a Praat script was written that would collect, for the relevant phones mentioned above, duration values as well as F1 and F2 values at 25%, 50% and 75% of the phone's duration.

3.3 Picture-naming task

165 Due to the more controlled nature and narrower scope of the picture-naming task, the results can be better understood by looking at the frequency of each strategy in each condition, across participants. Table 4 illustrates the resulting findings.

Condition	Strategy	Realisations	Total stimuli
#cF	l	6 (40%)	15
#cB	l	5 (50%)	10
	e̥	2 (20%)	10
IV-BcF	l	2 (13.33%)	15
IV-BcB	l	2 (5%)	40
	e̥	32 (80%)	40
Cod-PrF	l	7 (140%)	5
Cod-PrB	l	4 (80%)	5
CompOns	l	5 (100%)	5

Table 4. Results of the picture-naming task across participants.
*The number of realisations includes instances where a target word was not produced correctly, but the resulting realisation belonged to a different condition, hence the number of Cod-PrF realisations' exceeding the total number of possible realisations within a condition.

In the results table of Table 4, the number of conditions that predominantly, if not
170 consistently, employ [l] as the preferred realisation must not be taken as indicative of a preference for the lateral approximant over the non-syllabic vocalic allophone. By looking at the number of realisations out of the total number of possible realisations within a condition, it is clear that [l] is the preferred allophone only in the vicinity of a consonant, as explained in 1. Introduction. In proximity of a front vowel, /l/ is predominantly not realised, as the lack of
175 the entire IV-FcB condition from the table shows.

In the case of #cB, there seems to be more variability between the three allophones, although [l] has the greater number of realisations. For IV-BcB too, all three strategies are employed, though [e̥] is by far the most popular allophone.

3.4 Scene-description task

Turning to the scene-description task, the recordings of which proved too long and dense to
180 get useful data from apart from phonetic transcriptions, an impressionistic overview can be had. Despite not having duration and formant values for the relevant phones in those recordings, an individual Microsoft Word document containing the full phonetic transcription

(with phonological and/or lexical words being separated for a simpler count of the allophones) was made for each participant.

Here, by means of the 'Find' tool, it was possible to count, for each participant, the occurrences of [l] and [ę] as well as [Ø] (the latter was calculated by subtracting the occurrences of the other two allophones from the total word count within each document). As can be seen in Table 5, it seems that [l] and [Ø] were the predominant phone of choice, ranging from 36.56% to 76.69% and from 20.38% to 52.98% respectively, leaving the remaining 2.91% to 10.44% of realisations to [ę].

Participant	[l]	[ę]	[Ø]	Total utterances
G1	69 (42.85%)	8 (4.96%)	84 (52.17%)	161
MG	49 (36.56%)	14 (10.44%)	71 (52.98)	134
NMR	55 (45.45%)	11 (9.09%)	55 (45.45%)	121
NR	158 (76.69%)[6]	6 (2.91%)	42 (20.38%)	206
SS	60 (48%)	7 (5.60%)	58 (46.4%)	125

Table 5. Percentages of strategies used by each participant across all conditions in the scene-description task.

In order to better interpret the results that Table 5 offers, a few points should be made. Most crucially for the conclusions drawn below regarding the distribution of strategies across participants, the role of the diacritic played an important role in the counting phase of the occurrences of the front vowel glide. In all recordings, the definite article *la* 'the.F.SG' was used extensively. Still, it was not counted on Microsoft Word as it was most often realised as [ea]. This was due to the difference in prosody, which will be elaborated on further in 4. Discussion. Due to the number of utterances and in the interest of time, realisations of this type were not included when counting the number of occurrences of each strategy in the scene-description task. This, it is important to mention, does not change the fact that realisations of this type should be considered to be part of the front vowel glide strategy.

It should be noted that, due to the scene-description stimuli displaying more subjects (e.g. several people, animals or objects of the same kind) at the same time, the number of conditions that favour the non-realisation strategy (above all, plural words where either the final vowel or both vowels bordering /l/ are phonologically front) and their use was inevitably increased, as participants would often talk about categories of subjects (in plural terms),

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[6] No influence of extended residence outside the island is visible in any of the results. As for the transfer of Italian, influence was present in at least the case of participant NR, who used [l] extensively more than any other participant, including their spouse NMR.

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rather than individual subjects. Still, it would not be unreasonable to think that the relatively consistent of distribution of the three strategies across participants indicates a consistent distribution of the conditions that favour each allophone.

3.5 Comparison of results

By comparing the two tasks, two observations can be made: firstly, the number of occurrences of [ę] in the contexts that Tomasin (2010) describe to be favourable were strikingly predominant, when compared to the two other allophones. Secondly, however, the other two strategies are overall employed much more often across the different conditions. It could also be argued that the condition IV-BcB is overall less common in the Venetian language. To demonstrate this, an extensive study should be conducted on the whole language.

3.6 Phonetic features of [ę]

In order to properly answer the research question of what the features of [ę] are, duration, F1 and F2 (both taken at 25%, 50% and 75% of the duration of the sound) values were collected.

Condition	Strategy	Duration	SD_Duration	F1_25%	SD_F1_25%	F1_50%	SD_F1_50%
#cF	1	0.08	0.03	393.90	76.36	417.06	88.05
#cB	1	0.06	0.02	386.81	110.64	371.10	57.50
IV-BcB	1	0.08	0.03	480.82	3.57	456.57	12.55
Cod-PrF	1	0.09	0.04	450.47	334.05	349.02	94.05
Cod-PrB	1	0.10	0.05	392.27	57.59	386.25	90.28
CompOns	1	0.05	0.02	385.16	36.80	416.52	41.83
F1_75%	SD_F1_75%	F2_25%	SD_F2_25%	F2_50%	SD_F2_50%	F2_75%	SD_F2_75%
441.67	93.29	1468.43	198.01	1576.67	242.20	1570.10	213.53
388.23	78.55	1487.60	130.55	1490.78	105.88	1427.55	85.40
549.90	115.78	1004.43	378.34	1317.38	174.66	1306.15	209.84
366.50	99.42	1785.67	354.10	1838.48	320.64	1920.51	280.43
349.50	99.94	1330.14	52.96	1510.88	88.95	1356.82	85.96
487.06	100.67	1456.03	132.93	1411.06	162.52	1361.02	105.89
Condition	Strategy	Duration	SD_Duration	F1_25%	SD_F1_25%	F1_50%	SD_F1_50%

#cB	e̩	0.08	0.03	558.45	299.03	710.75	136.21
IV-BcB	e̩	0.07	0.02	617.61	119.51	609.21	137.34

F1_75%	SD_F1_75%	F2_25%	SD_F2_25%	F2_50%	SD_F2_50%	F2_75%	SD_F2_75%
750.68	115.32	1689.33	293.68	2068.65	142.64	2137.95	248.55
595.45	123.61	1438.20	309.87	1541.51	288.51	1503.96	306.49

Table 6. Duration and formant values at different times for [l] and [e̩]. Measurements were taken for duration as well as F1 and F2 values, both at 25%, 50% and 75% through the phone. Additionally, the standard deviation was calculated for all the values measured.

Across the different conditions, the duration and formant values of each phone varies only slightly. If not for the statistical non-significance of the results, these data could be used to inform additional research on the features of [e̩]. It seems then that averaging all realisations of [e̩] as well as [l] across participants and across conditions might be more telling for the purposes of this study.

Strategy	Duration	F1_25%	F1_50%	F1_75%	F2_25%	F2_50%	F2_75%
l	0.08	405.11	386.60	410.04	1,491.43	1,571.18	1,546.54
e̩	0.07	614.13	615.18	604.58	1,452.98	1,572.52	1,541.25

Table 7. Averaging across all conditions and participants.

In acoustic terms, the two phones vary enough in terms of F1 to be recognised as different but overall have similar values. It is important to note, however, that while [e̩] was realised in two conditions and there were more data for the one condition IV-BcB, the average values of [l] include realisations across very different conditions. This could be taken to explain the different F1 slopes. Still, the F1 of a regular [e] should also drop, unlike what the averaged F1 values of [e̩] seem to indicate.

Finally and most crucially, the F1 and F2 values at 50% of [e̩], namely 615Hz and 1572Hz, differ significantly from the normal F1 and F2 of [i], respectively around 300Hz and 2300Hz (data taken from an analysis of [i] in Boersma, 2014). This crucial to the determination of the nature of [e̩] and subsequently of the IPA symbol to use. As the F1 and F2 values of this phone are much closer to a regular [e] than [i], it stands to reason that the appropriate symbol is [e̩] and not [j][7]. Investigation on the degree of palatalisation was not

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[7] Additionally, /impaja/ and /impala/ are a minimal pair where the choice between /j/ and /l/ determines whether the meaning is 'stuffed' or 'impaled'/'frozen (figurative)'. This is another, if not the main reason why [j] cannot be the allophone of /l/ under discussion.

235   taken into account in the present study, though the acoustic quality of [i] is enough to establish [e̞] is a different sound and should have a different symbol to represent it.

4. Discussion

By looking at the results that Praat gave regarding the phonetic features of [e̞], it is clear that Tomasin's (2010) native intuition about the IPA symbol to be used was grounded. However, what is not clear is why this phone is an allophone of /l/ in the first place.

240   As mentioned in 1. Introduction, in Indo-European languages, L-vocalisation is a phenomenon that occurs predominantly in coda position (Recasens; 1996). Johnson & Britain (2007), by means of and OT analysis of language acquisition and sound change in English, go so far as to say that L-vocalisation is a natural phenomenon that happens over time in a language's lifespan. Venetian proper being an Indo-European language, it is quite puzzling

245   that the type of L-vocalisation explored in the present research does not occur in coda position but rather in onset position. What is more, Tomasin (2010) concludes that the Venetian proper allophony emerged around the second half of the 19th century at the earliest and as more written proof came about in the early 20th century, all three allophones were already present. The phonotactic position of the Venetian L-vocalisation, paired with its

250   seemingly already fossilised allophony system would go perfectly against what both Recasens' (1996) and Johnson & Britain's (2007) studies have shown.

4.1 Choice of allophone

Huffman (1997), comparing data from Sproat & Fujimura (1993) with her own, points to prosody as a cause for the /l/ allophony of English and further posits the existence of an intermediate phone between light and dark L in intervocalic position. The two concepts are

255   merged in Huffman's hypothesis of a gradient scale on which /l/ exists – at least in English – where /l/ goes from lightest to darkest along four positions within a word. In word-initial position (e.g. light), /l/ is lightest, in unstressed medial onset (e.g. paler) and in stressed medial onset (e.g. aloof) it becomes slightly but not detectably darker, while in coda or word-final position (e.g. sulphur or ball) it is darkest.

260   Venetian proper, unlike English, does not have a light-dark L contrast. Huffman's gradient scale, however, can still be used to map the role of prosody and syllable structure on the phonology of Venetian proper. Instead of light and dark L as the two ends of the scale, the

substitution strategies (lenition and deletion) are placed on one end and full lateral realisation on the other.

WORD-INITIAL	UNSTRESSED MEDIAL ONSET	STRESSED MEDIAL ONSET	CODA/WORD-FINAL
substitution	←————————————————→		lateral approximant
[e̞aˈ] or [Øaˈ]	[ˈso.e̞o] or [ˈso.Øo]	[ba.ˈe̞oŋ]	[fol.po] / [el]
but [ˈea]	but [sa.ˈver.lo]		

265 As the scale shows, the full lateral approximant realisation seems to be the preferred phone in one (and a half) of the cases, namely coda/word-final position. The unstressed medial onset position can, however, allow for a lateral realisation[8]. This is most likely due to the presence of a consonant adjacent to /l/, as is the case for the /p/ in the /folpo/ example.

Going from right to left then, the lateral realisation is abandoned in favour of the front

270 vowel glide realisation first, and an apparently arbitrary choice between the front vowel glide and the non-realisation strategies in the (unstressed) word-initial or medial onset positions. Interestingly, the stressed medial onset position seems to only allow for [e̞] as the allophone of choice, although the role of stress as explored below seems to indicate that this strategy should be employed in unstressed position only. It is not clear why this is not the case.

275 Again, the intervocalic position (between two "back" vowels) is the favoured condition for the front vowel glide strategy and it also is the condition that favours it above all. If it is expected to find this strategy in this position, it should also be noted that it is by no means the only one. Choosing one non-lateral strategy over the other seemed for the participants of the present paper to be an arbitrary matter in the picture-naming task. On the

280 other hand, the employment of the non-realisation strategy over the front vowel glide in the scene-description task should be attributed to the "natural speech"-like nature of the task itself. Connected and (virtually) natural speech often caused participants to reduce the glide to the point where it was not clearly visible in the spectrogram, while at times they would drop it entirely (non-realisation strategy) and where /l/ was surrounded by two vowels of the

285 same type (e.g. /solo/), the second vowel would see an increase in amplitude to compensate for the missing separation of the two otherwise identical vowels.

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[8] In principle, it is likely that the same applies to the stressed medial onset position. However, examples of this structure are harder to find, possibly because less frequent.

The coexistence of the front vowel glide and the non-realisation strategies in some of the same positions and conditions could be explained as an intermediate step in the evolution of the allophony of /l/. Starting from an original [l] as the only possible realisation of /l/, [e̯] probably emerged as an alternative in intervocalic position. Once this allophone was established, another one, namely [∅], surfaced to favour less demanding articulation and overall ease of speech. At the present time, it might be the case that [∅] has not taken over yet and therefore competes with [e̯] in contexts where the vowels surrounding /l/ need to be differentiated from each other and not merged in a single long vowel.

Finally, there seems to be quite some variability in word-initial position. While /l/ in unstressed word-initial position can be either substituted with [e̯] or deleted entirely, if /l/ is in stressed word-initial position, then it might be realised as a full vowel [e] (i.e. /la/ turns into [ea] instead of [e̯a]). This seems to be the result of prosody alone: spoken individually, the definite article /la/ 'the.F.SG' was often realised as [ea] by participants during the experiment, usually before a short pause during which they would be thinking of the word to use next[9], while [e̯a] would be produced in case of uninterrupted speech, in which case the article would be virtually always in unstressed position within the utterance.

Using Huffman's gradient scale theory to the /l/ allophony of Venetian proper requires some modifications, nevertheless it prompts some interesting considerations regarding (part of) the phonotactics of Venetian.

4.2 Choice of phone

Turning to the allophony of /l/ in English once more, one final consideration in respect of the type of glide being researched in the present study can be made. Inkelas & Rose (2007) researched the first language acquisition process of a child raised in a monolingual American English-speaking environment during the child's first three years of age. The authors found that, during a fourteen-month-long period of time, the child would employ [j] and [w] as allophones of /l/ instead of [l] and [ɫ]. The child's use of the two glides was phonologically systematic and could be attributed to the primary articulatory gesture of /l/ - which has two, namely an apical and a velar gesture – of each allophone of /l/ in adult American English. As the child could not articulate both gestures, the primary one of each allophone would be favoured, resulting in an approximant which had only said gesture. The palatal glide [j] was

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[9] It is interesting to note that their choosing a grammatically feminine and singular article meant they already had that information about the word they could not yet articulate. However, psycholinguistics is not the focus of the present research paper.

therefore used in stressed onset position in place of the light L [l][10], while the (labio-)velar glide [w] was chosen in unstressed coda position in place of the dark L [ɫ].

What Inkelas & Rose's (2007) study proves is that L-vocalisation can occur in onset position and that the employment of a glide articulated relatively fronter in the mouth, unlike [w], can be used in such a position. The findings of Inkelas & Rose (2007) demonstrate that across different languages and developmental stages, a front glide is a feasible candidate for /l/-substitutions. The importance of the primary gesture of /l/ could thus be considered to be the cause for the articulation of /l/ as [e̞] in onset position and [l] in coda position. Keeping in consideration that [e] is articulated further back in the vocal tract that both [l] and [j] (and so would be [e̞], in theory), this explanation for the allophony of Venetian proper thus begs two questions. Firstly, could [l] then not be in fact slightly darker in Venetian proper than in other varieties of Venetian – in which the allophony is not present – and Italian? Secondly, how light is /l/ in Venetian proper in the first place?

4.3 Consonant lenition and deletion in Venetian proper

The discussions introduced so far have shed light on the distribution of the allophones of /l/ in Venetian proper as well as on the existence of [e̞] itself as a feasible choice of phone for an allophone of /l/. The only question that has not been answered is that of why this L-vocalisation phenomenon came about to begin with.

A definitive answer is virtually impossible to give, especially considering the scope of the present study. Nonetheless, there is an aspect of Venetian proper that has emerged in the annotating process which may elucidate the matter.

What the scene-description recordings show is that Venetian proper seems to lenite and/or delete consonants other than /l/, both at the phonetic and phonemic level. Phonetically, participants would often realise words such as /kwalkoza/ and /del/ as [ɰwəlxɔsa] – with either one or both stops being lenited - and [ðel] respectively. This is probably mainly due to natural speech favouring more fluid and faster articulations, in which case fricatives and/or approximants would be preferred over stops and affricates. Phonemically, though, words such as /kaveli/ and /otʃali/, which in Italian and Latin would have /p/ for /v/ and /k/ for /tʃ/ in these two examples, were often realised as [kavei] and [otʃai] respectively. Here, the stops were substituted by a fricative and an affricate, respectively. What is more, the target word /pala/ in

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[10] The single gesture, i.e. place of articulation, of the palatal glide /j/ is, in English, laminal, not apical. In the absence of an apical approximant that, according to English phonology, was similar enough to /l/, it stands to reason that the closest place of articulation with the best match would be chosen instead.

345 the picture-naming task was not realised and, in its place, they chose the lexically related word /badil/ but realised it as [β̞ai:l] and [bail] respectively, the intervocalic /d/ being deleted.

   Whether or not this example is phonetic or phonemic, all the substitutions and deletions mentioned in this section point to the idea that Venetian proper is, at the time of writing this paper, in the process of leniting or deleting various types of consonants.

350 Therefore, the L-vocalisation investigated throughout the present paper could be seen as part of this larger phenomenon in Venetian proper.

5. Conclusion

The aim of the present research was to investigate the phonetic features of a phone present in Venetian proper, whose usage is linked to an allophony system unique to this variety of Venetian. The experiment bore promising results regarding its phonetic features, making it

355 clear that the glide in question is [e̞] and that it is not the same as [l], nor is it another glide such as [j] or a common L-vocalisation driven glide such as [w]. Additionally, it is clear that the vowel glide and the other two allophones of /l/, namely [l] and [Ø], are systematically distributed across different phonotactic conditions.

   To compliment the finding that, at the time of writing, the glide in question is indeed

360 [e̞] and that it is widespread, a phonological analysis was undertaken to explore the questions of how and why the allophony system and this type of L-vocalisation specifically came about, for which articulatorily driven account was proposed. Furthermore, a more general consonant lenition and deletion process has been posited.

   This research is however not exhaustive. For this reason, further research should look

365 to expand upon it both phonetically and phonologically.

   For a better phonetic understanding of the allophonic system and the quality of the allophones, (better equipped) acoustic as well as articulatory studies should be conducted. Most importantly, however, more participants should be recruited so as to allow for better inferential statistics and generalisations.

370   For the purposes of this paper, many assumptions were made about the phonology of Venetian proper, due to a lack of comprehensive sources to draw from. While it is true that some phonotactical research has been conducted, more and up-to-date systematic studies should tackle the phonological aspect of the language, ideally examining the entire phonological structure of Venetian in order to lay firmer ground for more comprehensive

375 research, possibly also outside of phonetics. For the purposes of this paper, many assumptions were made about the phonology of Venetian proper.

Be that as it may, this thesis paper will hopefully spark the interest of others within and maybe even without the field of linguistics on the topic of L-vocalisation if not Venetian proper specifically. Most of all, the intent that moved this endeavour was to lay some
380 foundations for the research and appreciation of Venetian proper as a proper language.

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7. Appendix – Praat script for extracting duration, F1 and F2 values

#This script is an amalgamation of two scripts created by Joey Stanley & Lisa Lipani:

#... https://joeystanley.com/downloads/191002-formant_extraction#14_the_finished_product

#... and https://joeystanley.com/downloads/190918-praat_scripting#6_outputting_file.

#Since I couldn't get Praat to open the files when I put them in a string for it to go through,

#... I made a script that goes through one file. In order for it to work with all participants'

#... files, I had to rename the directory, the files to read and the Praat object.

#... It's not elegant but I had no time to make the string thing work.


```
directory$ = "C:\BA_Thesis\participants
...\picture-naming task\"
outPutPath$ = "C:\BA_Thesis\participants\picture-naming task
...\hackerman\G2PNT.csv"



Read from file: "C:\BA_Thesis\participants\picture-naming task\G2.TextGrid"
Read from file: "C:\BA_Thesis\participants\picture-naming task\G2.wav"

selectObject: "TextGrid G2"
plusObject: "Sound G2"

phoneTier = 1
wordTier = 2
conditionTier = 3
thisSound$ = selected$ ("Sound")
thisTextGrid$ = selected$("TextGrid")
vowelsAndL$ = "[e̞ə̃l]"
#conditions$ = "[HcF|HcB|FcB|BcF|BcB|CodPrF|CodPrB|CompOns]"
#conditions$ = " [123456789]"
```

```
select Sound 'thisSound$'
To Formant (burg)... 0 5 5000 0.025 50


writeFileLine: outPutPath$,
... "file,condition,word,phone,time,
...duration,F1_25%, F1_50%, F1_75%,F2_25%, F2_50%, F2_75%"


select TextGrid 'thisTextGrid$'
numberOfIntervals = Get number of intervals: phoneTier
numberOfConditionIntervals = Get number of intervals: conditionTier


for thisInterval from 1 to numberOfIntervals
        thisPhone$ = Get label of interval: phoneTier, thisInterval
        #nextPhone$ = Get label of interval: phoneTier, thisInterval


                if index_regex(thisPhone$, vowelsAndL$)
                thisPhoneStartTime = Get start point: phoneTier, thisInterval
                thisPhoneEndTime = Get end point: phoneTier, thisInterval
                duration = thisPhoneEndTime - thisPhoneStartTime
                oneFourth = thisPhoneStartTime + duration*0.25
                midpoint = thisPhoneStartTime + duration/2
                threeFourths = thisPhoneStartTime + duration*0.75
                thisWordInterval = Get interval at time: wordTier, midpoint
                thisConditionInterval = Get interval at time: conditionTier, midpoint


                select Formant 'thisSound$'
                f1_25 = Get value at time... 1 oneFourth Hertz Linear
                f1_50 = Get value at time... 1 midpoint Hertz Linear
                f1_75 = Get value at time... 1 threeFourths Hertz Linear
                f2_25 = Get value at time... 2 oneFourth Hertz Linear
                f2_50 = Get value at time... 2 midpoint Hertz Linear
                f2_75 = Get value at time... 2 threeFourths Hertz Linear
```

```
select TextGrid 'thisTextGrid$'
thisWord$ = Get label of interval: wordTier, thisWordInterval
thisCondition$ = Get label of interval: conditionTier, thisConditionInterval

appendFileLine: outPutPath$,
...thisSound$, ",",
...thisCondition$, ",",
...thisWord$, ",",
...thisPhone$, ",",
...midpoint,",",
...duration,",",
...f1_25,",",
...f1_50,",",
...f1_75,",",
...f2_25,",",
...f2_50,",",
...f2_75
endif


endfor

plus Sound 'thisSound$'
plus Formant 'thisSound$'
Remove

writeInfoLine: "Scemo chi legge."
appendInfoLine: newline$, newline$,
... "I'll just go click click on the keyboard and Excel will spit out numbers"
```