Rising and rising-falling declaratives in Veneto dialects

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Abstract

The Romance dialects spoken in Veneto, North-East of Italy, have been described as possessing 'lilting cadences' [1]. Such cadences have only been reported in anecdotal terms, also by native speakers, who perceive and describe their dialects as marked by a final 'melodic tilt'. In our paper, we aim at examining the phonetic correlates of this trait. We recorded 30 dialectal speakers from Venice, Padua, and Gazzolo (near Verona), eliciting declarative sentences (N=900) across distinct three informational categories. The 3 areas differ not only in terms of geographic distribution but also by relative sociolinguistic prestige in the region. Utterances were first auditorily and visually inspected, and subsequently examined using Generalized Additive Mixed Models. The results indicated that broad focus statements in Gazzolo dialect, the most rural variety, often end with a final rise, a tonal feature possibly contributing to the lilting cadence. After providing an acoustic description of the rise, we discuss the theoretical and sociolinguistic implications of the data. Theoretically, rising declaratives are cross-linguistically seldom and can represent counter-examples for the Frequency code. From a sociolinguistic perspective, the Gazzolo rise may index the speakers not only geographically but also socially.

Index Terms: rising declaratives, dialectal variation, Veneto, final rise, sociolinguistic variation

1. Introduction

The region of Veneto, in the North-East of Italy, is one of the areas of the country where dialects are most vital and spoken in everyday conversation [2]. The dialects spoken in Veneto are Romance, vernacular varieties belonging to a different linguistic system from Italian, which is the common, national language of Italy [3]. As a consequence, Veneto dialects are characterized by lexical, grammatical, and phonological features substantially different from those of Italian.

Most speakers from Veneto are bilinguals mastering Italian as well as a dialectal variety [4]. As for their pronunciation, both Italian and the dialects in Veneto are reported to be characterized by a peculiar sing-song intonation [5,6], that has been defined as a "lilting cadence", or *'calada'* in Venetian dialect [1].

Research on the intonational systems of the dialects spoken in Italy is still scarce. Currently, , our knowledge is based on a small number of studies conducted on a handful of dialects, adopting different theoretical frameworks and methodologies, and having different empirical focuses (e.g., [7], [8], [9]). The intonational systems of Veneto dialects are not an exception in this picture. The few available studies are often couched into different frameworks and are based on data from few speakers. According to [10], the intonation of several dialects of Veneto is characterized by the presence of rising intonation in conclusive statements. Similarly [11], who analyzes a

spontaneous conversation among three dialectal speakers from Treviso, shows that declarative utterances with different focus structures in this dialect often end with rising or a rising-falling movement starting on the rightmost stressed syllable and spanning on the sentence-final. The rising-falling movement, which can be described as an LHL tonal sequence, seems sensitive to differences in focus structure. Cross-linguistically, rising declaratives are attested in English varieties, such as Liverpool and Dublin English [12] [13]. According to [11], the LHL sequence observed in Trevigiano is similar to the 'riseplateau-slumps' described by [14] for several northern varieties of British English. Although [11] does not specifically treats the LHL sequence as a possible candidate to account for the "tilting intonation" of Veneto dialects mentioned by lay speakers and scholars, rising and rising-falling declaratives might indeed be one of the intonational features allowing the identification of Venetan intonation as such. Along the lines of [19][20][11][21][22][23][24], in what follows we will refer to both rising and rising-falling final trajectories as "final rise".

In this paper, we aim at verifying the presence of final rise movements at the end of declarative utterances with different focus structures. Since the available evidence of a final rise in declaratives is limited to the Trevigiano dialect [10][11], in this paper we will enrich this picture by examining the statement intonation in three dialects spoken in different areas of the region. In doing so, we also contribute to the description of dialectal intonation in Veneto.

For the present investigation, we selected three dialects spoken in the following areas of Veneto: Venice (insular neighborhood of Castello), Padua, and Gazzòlo (near Verona) (see Fig.1). Venetian, Padua and Gazzolo dialects have different sociogeographic features: Venetian is the urban dialect of the regional capital, enjoying a high linguistic prestige in the whole region [1]; Padua dialect is also an urban variety, but not as prestigious as the Venetian dialect; Gazzolo is a rural dialect spoken in a small village.



Figure 1: Venice, Padua and Gazzolo

The paper is articulated as follows: in Section 2 we describe the methodology adopted for this work. In Section 3 we focus on the rise, showing that its presence appears to be a distinctive feature of BF statements in Gazzolo dialects. In Section 4, we discuss the implications of the distribution of the rises across focus conditions and dialects. Section 5 concludes the paper with possible directions for future research.

2. Methodology

We recorded 10 speakers (5M/5F) per area, all aged 20-30 and bilingual speakers of both Italian and dialect. Productions were elicited using a reading task, in which target sentences were presented in the context of short dialectal dialogues. Stimuli were presented twice in a pseudo-randomized order. The dialogues were recorded in .wav format (44kHz) and designed to elicit declarative sentences in three focus conditions: Broad Focus (BF), Contrastive Focus (CF), and Narrow Informational Focus (NIF). The experimental design included 5 target sentences per condition, (tot:15) and 30 fillers of different clausal types. The total experimental sample includes 900 target sentences (3 dialects * 10 speakers * 3 focus conditions * 5 sentences * 2 randomizations). The segmental layout of the focused word was designed to optimize prosodic analysis and comparison across dialects. The focused words had the same 'CVCVCV structure; the stressed syllable has a nasal incipit (e.g. MOnica, MUsica, MArica, MAnica, MOnaca). In (1) we provide an example of the context used to elicit BF statements.

(1) Gazzolo A: Cossa feto de sera? B: Scolto la musica
Padua A: Cossa xe che te fe de sera? B: Scolto la musica
Venice A: Cossa te fa de sera? B: Scolto la musica
A: 'What do you usually do in the evening?'

B: 'I listen to some music'

To elicit CF and NIF context post-focal material was added. In (2) and (3), we show examples of dialogues eliciting CF and NIF.

(2)	Gazzolo	A: Scoltito la partia ala radio?
		B: Scolto [la musica] _{CF} , ala radio
	Padua	A: Scoltito la partia ala radio?
		B: Scolto [la musica] _{CF} , ala radio
	Venice	A:Ti scolti la partia ala radio?
		B: Scolto [ła musica]cF, ala radi

A: 'Are you listening to the football match, on the radio?' B: 'I am listening to music, on the radio'

(3))	Gazzolo	A: Sa zè che ti scolti ala radio?
			B: Scolto [la musica] _{NIF} , ala radio
		Padua	A: Cossa scoltito ala radio?
			B: Scolto [la musica] _{NIF} , ala radio
		Venice	A: Cossa ti scolti ala radio?
			B: Scolto [la musica] _{NIF} , ala radio

A: 'What are you listening on the radio?'

B: 'I am listening to music, on the radio'

Utterances were auditorily and visually inspected using Praat [15], to qualitatively assess the presence of a final rise.

Subsequently, we compared the distribution of the final rise across the three dialects. We ran a logistic regression in R to predict the effect of variety on the presence or absence of feature at stake. While the logistic regression was based on manual annotation, we also built a Generalized Additive Mixed Model (GAMM) using the *itsadug* [16] and *mgcv* [17] packages by computing f0 points, which were automatically extracted using Parselmouth [18]. Both models included the speaker as random effect. Supplementary material, such as data frame and scripts, are available on https://osf.io/b5tza/.

3. Results

The qualitative examination of the data indicates that the statement tunes can indeed include a rise on the unstressed, sentence-final syllables. However, statement realization with a rise occurs in a minority of cases (78 out of 900), and only in BF context, while they are absent in CF and NIF contexts. While CF and NIF nuclear tunes appear characterized by spanned nuclear accents, the utterance-final, post-focal stretch does not present any relevant melodic movement. Figures 2 and 3 show examples of CF and NIF in Venice dialect.



Figure 2: CF statement from Venice dialect, without rise.



Figure 3: NIF statement from Venice, without rise.

In addition to this, most of the rises (50 out of 70) observed in BF statements are produced by speakers from Gazzolo, while rises only occur seldom in Venice (12 occurrences) and Padua dialect (16 occurrences).

The rise of BF can take different forms, as it can start in the second part of the nuclear syllable or later, and can either reach a high target at the end of the utterance or be followed by a fall on the last, unstressed syllable. Figures 4, 5, and 6 show different realizations of BF statements in Gazzolo, including a falling declarative tune without any rise (Figure 4), a statement with a rise starting at the beginning of the nuclear syllable and ending at the utterance offset (Figure 5), and a statement in which a steep rise is followed by an equally steep final fall on the last syllable on the utterance (Figure 6).



Figure 4: BF statement from Gazzolo, without rise. The tune realization corresponds to the $H+L^*$ L-L% tune of BF statements widely-attested in Italian varieties.



Figure 5: *BF utterance with the rise starting at the beginning of the nuclear syllable*



Figure 6: *BF* statement from Gazzolo with rise starting at the middle of the nuclear syllable and followed by a steep fall on the last utterance syllable.

Interestingly, in the examined corpus, such variation is not available in the instances of final rise in Venetian and Paduan dialects, where the contour is homogeneously similar to the example reported in Figure 7, both in terms of the turning point position and the presence of a final fall.



Figure 7: Broad focus utterance in Venetian including a rise.

A logistic model was fitted to ensure that the difference in the frequency of the rise is statistically significant. We report in table 1 the coefficients for the fixed effects¹.

	Estimate	р
(Intercept):	-0.84	0.001 (***)
PD		
VarietyVE	-0.19	0.59
VarietyVR	0.68	0.03 (*)

Table 1: Coefficients of the fixed effects of the logistic regression. $PD = Padua \ dialect, \ VE = Venice \ dialect, \ VR = Gazzolo \ dialect.$

The automatic analysis made by GAMM also found a statistical difference between Gazzolo and the other two varieties.

After checking the required statistical assumptions, the model, having a substantial statistical power $R^2 = 0.7$, shows that the interaction of the variety Gazzolo is statistically significant (p < .001). The effect of speaker is also statistically significant (p < .001). Note that no statistical difference was found between Padua and Venice dialects. Figure 8 displays the two fitted curves for Broad Focus sentences in Venetian and Gazzolese, whereas figure 9 represents the fitted curves for Paduan and Gazzolese.



Figure 8: Broad focus fitted curves for Venice (VE) and Gazzolo (VR dialect).

simr [25] in R. With 20 simulations, the test obtained 95% of statistical power.

 $^{^1}$ In order to ascertain whether the dataset contained a sufficient number of observations, Monte Carlo simulations were run using the package



Figure 9: Broad focus fitted curves for Padua (PD) and Gazzolo (VR) dialects.

The measurement windows of significant difference are within the area of 5-7 and 11-13, corresponding to the tone of the nuclear accent and the tonal events at the end of the utterance, with Gazzolo displaying a final rise and a fall. A caveat is needed in the interpretation of figure (9): the estimated curve for Padua seems to display a rise for this variety as well. Indeed this is the case, but less systematically in comparison to Gazzolo (confirming our regression model and the mere count of instances). As visible in the figure, the fitted curve of Gazzolo reaches higher levels at the end of the utterance, but it does not mean that the peak is higher in this variety. In Padua, the fitted curve occupies lower frequencies because the final rise is more penalized by its reduced occurrence. In this light, it is important to keep in mind that the curves' estimation by GAMM also consider the probability distribution of every point and compute a medial value ([26] for a comprehensive explanation of GAMMs).

4. Discussion

The data presented in this paper confirm the presence of a final rise in declaratives in the dialects spoken in the Veneto region. However, the distribution of such intonational features is not homogeneous across dialects and focus conditions.

Firstly, although the use of a reading task was needed in order to ensure comparability among the different productions, the results need to be confirmed on spontaneous material. Note, however, that final rises of the type observed here are attested in spontaneous, dialectal speech in Veneto [11] whereas their presence is not mentioned in the available research on Veneto Italian [27], suggesting that the rise is not an artifact of the task but rather a dialectal feature.

Secondly, the final rise only occurs in BF statements, whereas in CF and NIF contexts, in which the sentence-final stretch is post-focal, rising movements are absent. This result confirms the observations made by [11] on spontaneous Trevigiano dialect. Additionally, our data show that the presence of a rising movement is optional. The three varieties may employ a final low tone as well, in line with the realization of BF statements with a H+L*L% tune (cf. Figure 4), which is largely predominant in the Romance varieties investigated so far [28]. The final rise, moreover, is also variable in its shape, as it can be realized as a rise-fall, i.e. with a 'rise-plateau-slumps' similar to the LHL sequence described by [11] (as in Figures 6-7), as well as a constant rise starting from the beginning of the nuclear syllable (as in Figure 5).

The rise is also unevenly distributed across the examined dialects; a logistic regression confirmed that the rise is statistically more frequent in Gazzolo than in Venice and Padua

dialects. As mentioned in Section 1. Gazzolo dialect is a rural variety spoken in a small village. In Italy, Veneto included, geographic and social markedness are intrinsically intertwined [29]. This means that the presence of local linguistic features in speech is likely to index the speaker not only geographically, as affiliated to a given place, but also socially, as belonging to a given group. This leads us to hypothesize that this final rise, because of its socio-geographic value, is more likely to be suppressed by speakers of urban dialects, who in turn would converge toward the typical Italian (and Romance) contour H+L* L%. In future research, therefore, we also need to consider the social value of the trait to better account for its distribution across speakers. Roseano et al. also found an optional rise in BF statements of Friulian dialects [30], which are geographically-closed varieties to the Venetan ones. [31] analyzed the final rise as a source of allotonic variation. It is certainly true that the rise can be considered as a variant, coexisting in BF statements with (at least) another variant, namely the H+L* L% tune. Both variants can be used in the same pragmatic import and information structure, i.e. the final rise does not have any distinctive meaning. This is not the case, for instance, in English rising declaratives discussed in [31], where a different pragmatic import is encoded by the tune. However, in the light of the observation made above on the socio-geographic value of linguistic features, we can hypothesize that such variants, while sharing the same categorical meaning, differ as far as their social meaning is concerned. If we are on the right track, the rise might be a phonetic variant acting as a social and geographical index.

Finally, a broader comment can be made. It has been claimed that statements typically end with a low boundary tone, not only in Romance but quasi-universally. This claim is mainly based on biological assumptions like the Frequency Code [32] ([33] for a discussion). The main idea behind this principle is that the completion of the predicate is signaled by a low pitch, whereas the high / rising pitch represents non-finality. Our final rise discussed here is a counter-example of this claim. Hence, we adopt Ladd's skepticism on these kinds of universals [34]: they should not be discarded altogether but considered with the *caveat* that language-specific variations are not just minor alternatives. It is noteworthy to remark that similar rises have been observed in other dialects and varieties. For example, in Dominican Spanish, a final H% is found in broad focus sentences, as well [35].

5. Conclusions

Our research confirms that the declarative tune in Veneto dialects can include a final rising movement, possibly contributing to the 'lilting cadences' attributed to such dialectal varieties. However, assessing the role of this feature in the intonational system of Veneto dialect is not a trivial task (cf. [36]): it requires tackling sociolinguistic questions, e.g. when and why this feature is suppressed and how it is perceived and evaluated by the speakers of the region.

In addition, our data indicate that the feature is unevenly spread in Veneto. Since a similar rise has been also observed in Friulian, further investigation is needed to shed light on intonational variation both along a horizontal direction (across dialectal varieties) and vertically (within the individual speaker's repertoire, i.e. Italian and dialect), in both controlled and spontaneous speech.

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