



UNIVERSIDADE ESTADUAL DE CAMPINAS  
SISTEMA DE BIBLIOTECAS DA UNICAMP  
REPOSITÓRIO DA PRODUÇÃO CIENTÍFICA E INTELLECTUAL DA UNICAMP

**Versão do arquivo anexado / Version of attached file:**

Versão do Editor / Published Version

**Mais informações no site da editora / Further information on publisher's website:**

<http://periodicos.letras.ufmg.br/index.php/relin/article/view/14387>

**DOI: 10.17851/2237-2083.27.4.1649-1670**

**Direitos autorais / Publisher's copyright statement:**

©2019 by UFMG/Faculdade de Letras. All rights reserved.

DIRETORIA DE TRATAMENTO DA INFORMAÇÃO

Cidade Universitária Zeferino Vaz Barão Geraldo

CEP 13083-970 – Campinas SP

Fone: (19) 3521-6493

<http://www.repositorio.unicamp.br>



## Linguistic evaluation and variation: accent marks in the opinion of Louveirenses

### *Avaliação linguística e variação: marcas de sotaque na opinião dos louveirenses*

Victor Carreão

Universidade Estadual de Campinas (UNICAMP), Campinas, São Paulo / Brazil  
vcarreao@yahoo.com.br

**Abstract:** Linguistic evaluation is portrayed and explored in sociolinguistic studies in various ways (e.g. LABOV, 2008 [1972]; KROCH, 1995). In this paper, we discuss the ways in which speakers are asked, in sociolinguistic interviews, about their perceptions and evaluations of accent: what the speakers understand by this term and how the opinion about their own accent can be correlated to the production of linguistic variables. Firstly, we compare how these questions are asked in three studies of Brazilian Portuguese (BARBOSA, 2002; OUSHIRO, 2015; CARREÃO, 2018). Secondly, we focus on data about Louveira (a city in the countryside of São Paulo state, but rather close to the state capital, also named São Paulo), which shows a correlation between opinions on accent and the production of two linguistic variables: (i) (t,d) followed by [i] – variably pronounced as dental stops [t, d] or affricates [tʃ, dʒ]; and (ii) coda (-r) – variably pronounced as retroflex [ɻ] or tap [ɾ]. Louveira’s less common variants ([t, d] and [ɻ]) correlate in production to accent evaluation by the speakers. Considering that accents tend to be ranked in comparison to one another (see BARBOSA, 2002), we discuss how the opposition “capital vs. countryside” is operationalized in Louveira. The cities that exert the greatest influence on speakers also determine which values (positive or negative/stigmatized) are attributed to certain linguistic variants.

**Keywords:** linguistic evaluation; accent; socioeconomic changes; linguistic variation.

**Resumo:** A avaliação linguística é retratada e explorada de diferentes maneiras em estudos sociolinguísticos (como em LABOV, 2008 [1972]; KROCH, 1995). Neste trabalho, coloca-se em pauta a maneira pela qual é possível perguntar aos falantes sobre suas percepções e avaliações linguísticas em torno da noção de “sotaque”: o que os

falantes entendem por esse termo e como a opinião sobre seu próprio sotaque pode se correlacionar à produção de variantes linguísticas. Para tanto, em um primeiro momento verificamos como são feitos esses questionamentos em três trabalhos sociolinguísticos acerca do português brasileiro (BARBOSA, 2002; OUSHIRO, 2015; CARREÃO, 2018). Em um segundo momento, concentramo-nos em dados sobre a cidade de Louveira (no interior do estado de São Paulo, mas próxima à capital), que revelam correlação entre a opinião sobre sotaque e a realização de duas variáveis linguísticas: (i) (t, d) diante da vogal [i] – cujas variantes são dentais (t, d) ou africadas [tʃ, dʒ]; e (ii) a realização de (-r) em coda silábica – cujas variantes são o retroflexo [ɾ] ou o tepe [r]. As variantes menos comuns no município ([t, d] e [r]) estão correlacionadas à opinião dos falantes sobre sotaque. Considerando-se que um sotaque é sempre classificado em comparação a outro (segundo BARBOSA, 2002), interessa verificar como a oposição “capital vs. interior” opera em Louveira. As cidades que exercem maior influência sobre os falantes são aqueles que, aparentemente, ditam o valor e o estigma atribuídos a determinados traços linguísticos.

**Palavras-chave:** avaliação linguística; sotaque; mudanças socioeconômicas; variação linguística.

Submitted on November 11th, 2018

Accepted on May 5th, 2019

## 1. Introduction

In light of speakers’ opinions about accent (“*sotaque*” in Brazilian Portuguese, henceforth BP), this paper analyzes two variables – (t,d) before [i], as dental stops or africates, and coda (-r), as tap or retroflex – employed by speakers in Louveira (a small city in the countryside of São Paulo state, next to Campinas and to the state capital). Louveira is a city where migrants from Northeastern Brazil and Italian immigrants’ descendants have established. The city is connected to other locations by important state highways, and the area is known for its many multinational companies as well as agricultural fields. Home to few more than 44,000 inhabitants, it used to be an agricultural location, which has changed to a big logistics center and is nowadays seen as the richest city in Brazil in terms of per capita income (G1 2012; PRATES, 2014). We explore the relationship between Louveira’s speakers notions of accent and their variable pronunciation of coda (-r) and (t, d) followed by [i]. The data analyzed were extracted from 25 interviews, stratified by gender,

age (18 to 29; 30 to 45; and 46 to 60 years old), and place of residence (new or old neighborhoods in the city). Age group is an important social variable as it encompasses speakers who lived through different stages of the city's development: those who are the oldest lived during the political emancipation of Louveira; those whose age range from 30 to 45 years old are the ones who lived during the economic shift of the city (from plantations to big companies and factories); and the youngest Louveirenses are the ones who were born in an already wealthy and industrialized city. Louveira was a rather encapsulated city, which opened economically to others as the years went by. This gradual connection to other places and people has meant that Louveirenses have gotten more frequently in contact with other language varieties. Therefore, it is important to check what these speakers, in each age group, consider as an accent mark – if we are to use this as a reference point to analyze the variables aforementioned in their sociolinguistic production. In one of the sociolinguistic interviews in this sample, speaker IE17<sup>1</sup> states (CARREÃO, 2018, p. 81):

IE17 *Louveira não tem sotaque porque a gente é muito mesclado*  
 ‘Louveira has no accent because we are very mixed’

Since there are many companies and factories in Louveira, there are also many people visiting from nearby cities (such as São Paulo, the state capital, and Campinas). Statements regarding this “blend” as an accent nullifier are certainly not particular to Louveirenses. In the cities of Brasília (Brazil’s capital) and São Paulo, which are much bigger than Louveira and characterized by many varieties in contact, their speakers commonly refer to how mixed their cities are, in terms of “people from everywhere”. In her dissertation about spoken BP in Brasília, Barbosa (2002, p. 57) gives examples of similar statements as the one made by our informant in Louveira, as in:

A22G *Em Brasília tem gente de tudo quanto é canto do Brasil*  
 ‘In Brasília there are people from all around Brazil’

---

<sup>1</sup> IE stands for *Informante Entrevistado* ‘interviewed informant’ and the number corresponds to the order in which the interviews were collected.

One of Oushiro's (2015, p. 10) informants states something similar, when talking about speakers in the city of São Paulo:

ROMULO S. M3MC: porque isso aqui... draga as pessoas não tem como... e e eu acho que as pessoas acabam/ tem um um amálgama aí né um... sabe uma uma uma junção de todos os sotaques veio junto que faz uma sopa... e e todo mundo entra nessa sopa chega uma hora que você acaba tomando essa sopa... do so/ dos sotaques todos que é um/ que vira o sotaque paulista entendeu... que é uma mistura que tem uma coisa bastante misturada né

ROMULO S. M3MC: because this here... drags people there's no way around that ... and I think people end up/there's a a blend right?... you know like a a gathering of all accents together which makes a soup... and and everybody gets into that soup and it gets to a point that you end up taking that soup... of all the accents which is/ which becomes the Paulista accent you know... which is a blend that has something very blended you know

Many other examples can be found in the studies cited above, but the main point here is that speakers perceive accents according to their references, which are usually related to cities/areas known to them. In other words, one accent is always conceived of in opposition to another.

In our study in Louveira, the accent issue was brought up in the final moments of the sociolinguistic interviews – similarly to what is done by Kroch (1995) – by asking informants “do you believe that Louveirenses have an accent, or any mark of speech that would show people where they come from?” Each sociolinguistic interview (conducted as described by Labov 2008 [1972]) was about 45-minutes long, and the final 10 to 15 minutes were dedicated to questions about accent. This paper shows how this sort of question may be used as a way of collecting/extracting data for statistical tests, in the form of an independent variable. In other words, we analyze how Louveirenses' beliefs about whether they have an accent correlate to variation in their speech. In addition, we also check for correlations between accent perception (positive or negative) and variation in production. As mentioned earlier, the linguistic variables being focused are: the pronunciation of onset (t, d) followed by [i] (in words like *tia* ‘aunt’ and *dia* ‘day’, which can be pronounced as dental stops or affricates in Louveira – [‘tia] or [‘tʃia]; [‘dia] or [‘dʒia]), and coda (-r) (in words like *porta* ‘door’ and *mar* ‘sea’, respectively variably pronounced as [‘pɔɾ.ta] or [‘pɔɾ.ta], and [‘maɾ] or [‘mar]). In Louveira, the

dental stops [t, d] and the tap [ɾ] are the less common variants observed for these sociolinguistic variables (CARREÃO, 2018). Out of the 25 speakers that were interviewed, 13 believe that Louveira has its own accent – and all of them refer to the retroflex as a characteristic feature (but not to the dentals [t,d]).

In the following sections, statistic models built in R (R CORE TEAM, 2018) are presented according to age groups, and focus on speakers' opinions about Louveira's accent (whether it exists or not) and on speakers' sex/gender. The interest in age groups is related to Louveira's economy, which has shifted from agriculture-based to logistics-based and, as mentioned earlier, speakers from each age group lived in different economic situations and interacted with people outside Louveira in different degrees. Speakers' opinions about accent also relate to the different degrees of interaction that our speakers likely have had with people from other cities (and their language varieties): it is possible to check if their opinions on accent are comparisons to other people's varieties or comparisons among Louveirenses themselves. Finally, the decision to look into sex/gender is based on our speakers' comments about how men and women appear to have different roles/professions in the community.

When asking our informants about their opinion regarding a Louveirense accent, the word “accent” was followed by the word “mark” (as in “what accent mark do Louveirenses have?”). The idea was to get an answer from our informants that would bring up a specific linguistic variety. Had we only used the word “accent”, our question might have led our informants to compare the speech in Louveira to other varieties. Differently, by employing “accent mark” in our question, their answer would be more likely to center in an evaluation of their own dialect, since examples of their own speech variety might be provided. In the following section, we present how data is distributed according to age groups – first for (t, d), and then for (-r).

## **2. Accent and linguistic variation in louveira**

Our 25 informants – all born and raised in Louveira - are stratified as follows: (i) 18 to 29 years old (4 men and 5 women); (ii) 30 to 45 years old: 4 men and 4 women; (iii) 46 to 60 years old: 4 men and 4 women. The following subsections show data distribution for both variables: (t,d) followed by [i] and coda (-r).

## 2.1. (t, d)

As we mentioned earlier, the dental variants [t, d] for (t, d) are not mentioned by louveirenses in their interviews when they are asked about linguistic features that are commonly observed in the countryside and in Louveira. There's a clear distinction between older and younger speakers, as Table 1 shows:

TABLE 1 – Proportions of affricated and dental variants for (t, d) by age group

Age group	Affricated	Dental	Total	Chi-square
18 to 29 y.o	2413 (99%)	17 (01%)	2430	$\chi^2 = 1817,4 (2),$ $p < 0,001$
30 to 45 y.o	2186 (90%)	233 (10%)	2419	
46 to 60 y.o	1324 (54%)	<b>1115 (46%)</b>	2439	

Source: Carreão (2018, p. 79)

Speakers from the first age group affricate (t,d) nearly categorically. In a comparison among the three age groups, it is possible to attest that a linguistic change was in course (from the dental to the affricated variant) and is completed in the speech of the youngest speakers. Because of this, the occurrences from the first age group will be ignored in the regression models that follow, since the interest here is to analyze data by the speakers whose pronunciation of (t,d) is more variable. The data for second and third-age-group informants (respectively referred to as “younger” and “older” speakers for the (t, d) analysis) are presented in detail in Table 2:

TABLE 2 – (t/d) data by second- and third-age-group speakers

Informant	Affricated	Dental	Total
<b>Younger speakers (2nd age group)</b>			
IE21	178 (99%)	01 (01%)	179
IE28	391 (100%)	0 (0%)	391
IE31	283 (72%)	<b>110 (28%)</b>	393
IE35	324 (88%)	43 (12%)	367
IE38	293 (97%)	04 (03%)	297
IE40	279 (97%)	09 (03%)	288
IE43	153 (72%)	<b>60 (28%)</b>	213
IE44	285 (98%)	06 (02%)	291
TOTAL	<b>2186 (90%)</b>	<b>233 (10%)</b>	<b>2419</b>
<b>Older speakers (3rd age group)</b>			
IE22	123 (31%)	277 (69%)	400
IE24	233 (68%)	111 (32%)	344
IE29	193 (58%)	141 (42%)	334
IE30	170 (56%)	132 (44%)	302
IE36	40 (13%)	260 (87%)	300
IE39	270 (95%)	<b>13 (05%)</b>	283
IE41	101 (38%)	164 (62%)	265
IE42	194 (92%)	<b>17 (08%)</b>	211
TOTAL	<b>1324 (54%)</b>	<b>1115 (46%)</b>	<b>2439</b>

Source: Carreão (2018, p. 86)

The lines in red in Table 2 highlight the speakers who state that Louveira has an accent of its own. In the second age group, 4 speakers (IE38, IE40, IE43 and IE44) believe Louveira has its own accent, differently from the other 4 (IE21, IE28, IE31 and IE35). Among the older speakers, 3 (IE24, IE41 and IE42) believe that Louveira has an

accent, and the other 5 (IE22, IE29, IE30, IE36 and IE39) do not. In our sample of speakers, there is no bias regarding accent perception as both age groups have different visions about Louveira having an accent of its own or not.

Informants IE31 and IE43 (of the younger group) are the ones with highest frequencies of dental (t, d); in the older speakers group (the third age group), informants IE39 and IE42 are the ones with lowest frequency of dentals. The data for these informants show that some speakers may present high use of one variant while others rarely use them. After presenting (t, d) and coda (-r) data, we check if these speakers with high frequency of dental [t, d] also present high rates of tap [r], and whether they differ in relation to the common variants in Louveira.

Regarding the interviewees' responses about accent in Louveira (to the question "does Louveira have an accent of its own?"), the distribution of data for (t, d) is as follows:

TABLE 3 – Proportion of affricated and dental (t,d) variants according to the answer given by the informants to "Does Louveira have an accent of its own?"

Does Louveira have an accent of its own?	Affricated	Dental	Total	Chi-square
Yes	3057 (89%)	387 (11%)	3444	$\chi^2 = 239,88$ (1), $p < 0,001$
No	2866 (74%)	<b>978 (26%)</b>	3844	

Source: Carreão (2018, p. 96)

As shown in Tables 1 and 2, dental [t, d] is much less frequent than the affricate variant in Louveira. Table 3 shows that dental (t,d) is most frequently observed in the speech of Louveirenses who believe that Louveira does not have an accent of its own. These facts suggest that dental (t,d) (very uncommon in the speech of capital São Paulo speakers) is a variant below the level of consciousness of Louveirenses, and it would be uncommon in the speech of the first age group speakers', considering that these informants were born after a generation of louveirenses with low use of dental [t, d] (as the second age group presents only 10% use of this variant). Table 4 shows the distribution of (t,d) according to the accent response by speakers of the second and third age groups.

TABLE 4 – Proportions of affricated and dental (t,d) according to the responses given by speakers of the second and third age groups

<b>Does Louveira have an accent of its own?</b>	<b>Affricated</b>	<b>Dental</b>	<b>TOTAL</b>
<b>Age group 2</b>	<b>2187</b>	<b>233</b>	<b>2420</b>
Yes (4 speakers)	1011 (93%)	79 (07%)	1090
No (4 speakers)	1176 (88%)	<b>154 (12%)</b>	1330
<b>Age group 3</b>	<b>1324</b>	<b>1115</b>	<b>2439</b>
Yes (3 speakers)	528 (64%)	292 (36%)	820
No (5 speakers)	796 (49%)	<b>823 (51%)</b>	1619
<b>TOTAL (16 speakers)</b>	<b>3511</b>	<b>1348</b>	<b>4859</b>

These numbers show, in more details that those in Table 3, that the speakers who believe that Louveira does not have an accent of its own are the ones who most frequently pronounce (t,d) as dentals. To verify this, regression models were built in R (R CORE TEAM, 2018) to test the correlation between the responses given by speakers about an accent in Louveira and variable pronunciation of (t,d). For the older speakers, there is no such correlation. As shown in Table 1, the total number of occurrences for this sociolinguistic variable is balanced (46% of dental stops and 54% for the affricates). For the speakers of the second age group, this scenario is different, as those informants who believe that Louveira has an accent are the ones prone to pronounce (t,d) as dentals [t, d]. Table 5 summarizes the results of a logistic regression model, specifically for the 8 informants of the second age group, regarding their opinion on Louveira's speech and their sex/gender:

TABLE 5 – Estimates (in logodds) for the realization of (t, d) in relation to speaker 'sex/gender' and 'response about accent' – speakers of the second age group

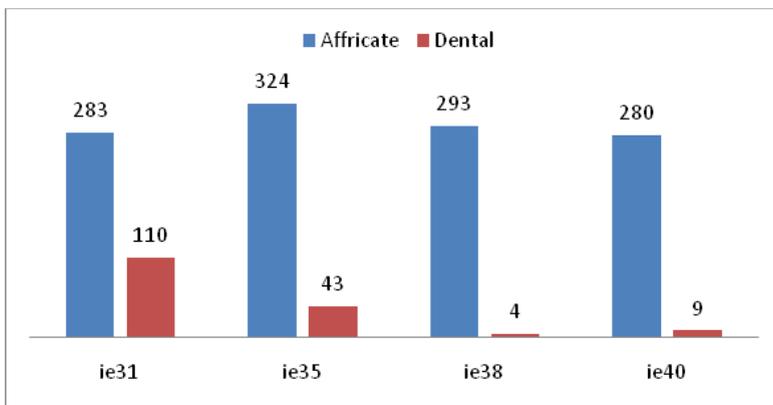
FACTORS	Estimate	Std. Error	z value	Pr(> z )	
(Intercept)	-2.35	1.1573	-2.034	0.0419	*
No, Louveira does not have an accent	-0.64	1.3649	-0.470	0.6380	
Sex/Gender Male	-1.60	1.3633	-1.171	0.2417	
C = 0.620 <sup>2</sup>	+ 0,1 < p > 0,05; *p < 0,05; **p < 0,01; ***p < 0,001				

\* Formula: `mod.glmer <- glmer(VD ~ Response.accent + sex + (1|Informant), data = dentals, family = binomial)`

As mentioned in the introductions, Louveira was a city with an agriculture-based economy. More recently, logistics and industries have become the main source of income and revenue for the city's Gross Product and, with that, the Louveirenses started to get more frequently in contact with people from different cities, especially because of companies that had different suppliers in their logistic chains. If the accent perception is a byproduct of this economic phenomenon, it is possible to associate one's profession to one's sense of accent perception. Do men and women in Louveira have the same professions and have similar chances to get in contact with people that speak other varieties? Figure 1 shows the number of (t,d) occurrences for each female speaker of the second age group (30 to 45 years old):

<sup>2</sup> The C index, according to Hosmer and Lemeshow (2000) (apud LEVSHINA, 2015, p. 259), is described as follows: C < 0.6 indexes would have little power of outcome discrimination, whereas values 0.7 < C < 0.8 would have acceptable discrimination result. Higher values, such as 0.8 < C < 0.9, would represent excellent power of outcome discrimination and, finally, a C value greater than 0.9, a notorious power of outcome discrimination. As we are working with an extralinguistic variable which has only two factors, the C index is expected to be low. The more variables and variants there are in the statistical model, the higher the C index tends to be.

FIGURE 1 – Occurrences of affricate and dental (t, d) for female speakers (age group 2)



Both IE31 and IE35 are middle-class women who have worked in Louveira for their whole lives. They have also been working with the local community for a long time and, at the same time that they make clear their work is important in and for the local community, they also intend to advance in their job positions by studying more and by expanding the reach of their services to those who come from other cities. Their jobs, though not in the same area, are related to social service (IE31 works in an NGO and IE35 is a social worker), and they work directly with the community, with people from all social classes, but not people from other cities. Unlike the male speakers of the same age group, who work in companies, these women are more locally connected to other Louveirenses.

As mentioned before, IE31 and IE35 believe Louveira does not have an accent of its own – differently from IE38 and IE40, who are female speakers that work in companies and get in contact with people from different cities. As we have seen, the former two present significantly higher rates of dental (t,d) than the latter. On the other hand, we have IE43 (TABLE 2), a male speaker of the same second age group, who works in a small food business (selling goods mainly to Louveirenses), and also presents a high rate of dental stops [t, d]. Differently from IE31 and IE24, he states that Louveira has an accent of its own, but like the two female speakers, he also presents high rates of dental (t,d).

Their proximity to different groups of people (Louveirenses vs. people from other cities) is the characteristic that may explain why certain variants are unnoticed. Dental (t,d) is more frequently found in the speech of speakers who are closer to Louveirenses on a daily basis. This may also explain why the dental (t, d) is not mentioned as an accent mark in any of the interviews – not even by those who claim that Louveira has an accent. Those who work in big companies do not pronounce (t, d) as dentals, so there is no actual variability in their workplace, as far as (t,d). If there is no perception of this variant as an accent mark, questioning speakers about accent in general will lead to answers that do not take variants that are below the level of consciousness into account.

Next, we turn to variable coda (-r). Like dental (t,d), tap (-r) is generally less frequent in the community, but this variable is likely above the level of consciousness for our speakers, since the retroflex variant is often mentioned as part of the Louveirense accent. The idea is to verify if the production of a variant above the level of consciousness – differently from (t,d) – is correlated to speakers' perception about whether Louveira has or not an accent of its own.

## **2.2. Coda (-r)**

Our interviews revealed that the speakers who believe Louveira has an accent of its own consider the retroflex variant an accent mark typical of the inhabitants of the state countryside – which includes Louveira. In opposition to it, the tap variant was mentioned by some informants as the variant used in the state capital. As the community in Louveira is also formed by migrants from various Brazilian states – especially from the Northeast – some comments made by our speakers also highlighted that the glottal (or uvular) variant for coda (-r) was found in Louveira.

The analysis of (t, d) above showed that the speakers who present higher rates of the less common variant in Louveira (dental [t, d]) are those who have occupations and play social roles centered in the community. Considering this as a starting point for the present analysis of (-r), we check which informants present higher rates of tap (less common in the community than the retroflex), as well as their occupation/role in the community and their opinion on accent. Our hypothesis is that occupation/role in the community is connected to one's perception

about accent and that this may influence their use of tap. Coda (-r) data are distributed as it follows:

TABLE 6 – Proportions for retroflex and tap by age group

Age group	Retroflex	Tap	Total	Chi-square
18 to 29 y.o	1209 (92%)	106 (08%)	1315	$\chi^2 = 91,172 (2),$ $p < 0,001$
30 to 45 y.o	898 (79%)	<b>232 (21%)</b>	1130	
46 to 60 y.o	1031 (89%)	124 (11%)	1155	

Source: Carreão (2018, p. 97)

The second age group of speakers is the one with the highest tap rates. The chi-square test shows a significant difference between the groups, but there is more behind these numbers. If we look at the data according to whether the speakers answered yes or no about Louveira’s having its own accent, we have the following scenario:

TABLE 7 – Proportions of retroflex and tap according to the informants’ answer to the question ‘Does Louveira have an accent of its own?’

Does Louveira have an accent of its own?	Retroflex	Tap	Total	Chi-square
Yes	1528 (91%)	145 (09%)	1673	$\chi^2 = 47,804 (1),$ $p < 0,001$
No	1610 (83%)	<b>317 (17%)</b>	1927	

Source: Carreão (2018, p. 114)

There is a significant difference between the tap rates corresponding to the yes/no responses given by the speakers to the accent question. But, according to Table 6, the second age group is the one with the highest tap rate, so Table 8 crosses these variables specifically for the speakers of that group:

TABLE 8 – Proportions of retroflex and tap for speakers of the second age group, according to their answer about a Louveirense accent

Opinion on accent/age group	Retroflex	Tap	TOTAL
Louveira has an accent of its own	430 (88%)	57 (12%)	487
Louveira does not have an accent of its own	468 (73%)	175 (27%)	643
<b>TOTAL</b>	<b>898</b>	<b>232</b>	<b>1130</b>

In the second age group, the speakers who believe that Louveira does not have an accent of its own are those that produce tap (-r) more frequently, which is an accent mark that is not related to Louveira, as the retroflex variant is mentioned as the one that is part of the Louveirense accent. Next, each age group is analyzed separately, starting with the third age group (older speakers) and moving to the two younger groups, in order to see how the patterns changed from one generation to the other.

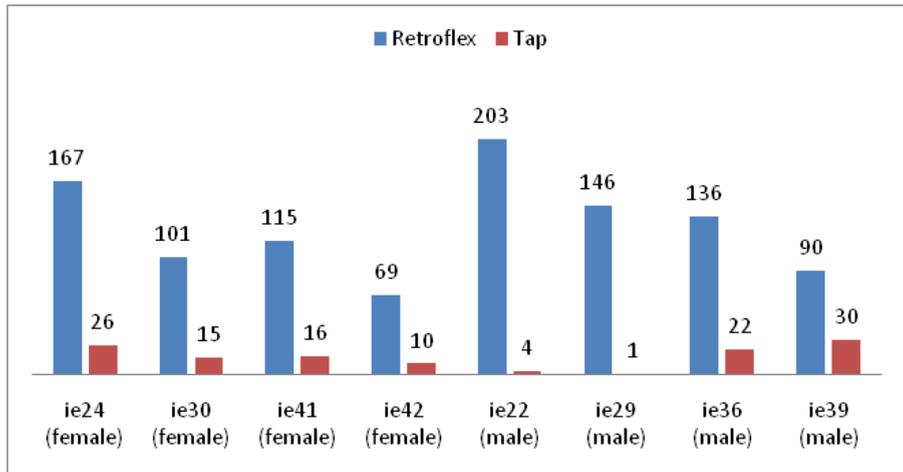
TABLE 9 – Estimates (in logodds) for [r] according to speaker sex/gender and their response about accent in Louveira – third age group

FACTORS	Estimate	Std. Error	z value	Pr(> z )	
<i>(Intercept)</i>	-1.95	0.56083	-3.475	0.00051	***
No, Louveira does not have an accent	0.01	1.12209	0.014	0.98863	
Sex/Gender Male	-0.81	1.09990	-0.740	0.45935	
C = 0.550	+ 0,1 < p > 0,05; *p < 0,05; **p < 0,01; ***p < 0,001				

\* Formula: `mod.glmmer <- glmmer(VD ~ Response.Accent+ sex + (1|Informa), data = RCODA, family = binomial)`

For this group, speakers' answers to the accent question and their sex do not correlate with tap (-r). Figure 2 shows the number of tokens for each informant in the group:

FIGURE 2 – Coda (-r) for informants of the third age group



Only female speakers IE24, IE41 and IE42 say that Louveira has an accent of its own. The first two descend from Italian immigrants and commented that this accent would be a result of the contact between Brazilians and the immigrants back in the beginning of the twentieth century. One of the male speakers – IE36 – also descends from Italian immigrants, and presents a relatively highest rate of (-r); however, he does not believe that Louveira has an accent of its own. IE36 is a farmer and he states that back in time he would help his father in the plantations and would hear a dialect that was different from the one he listened to at his elementary school. He also stated that it is a pity to see this different dialect disappearing as the years go by. For him, Louveira has no accent of its own, but the immigrants had a different way of speaking Brazilian Portuguese. On the other hand, IE39 is not a descendent from immigrants, but has a big business in the city and works with suppliers from different cities; he presents a higher use of tap (-r) – especially compared to IE36 – and also believes that Louveira has no accent of its own. In this age group, the only comments regarding an accent are associated to the pronunciation of immigrants, but this is not related to the number of tap (-r) observed. The few occurrences of this variant makes it hard to find a correlation between accent perception and variation.

For the second age group, we do see a correlation between (-r) and the speakers’ responses about accent:

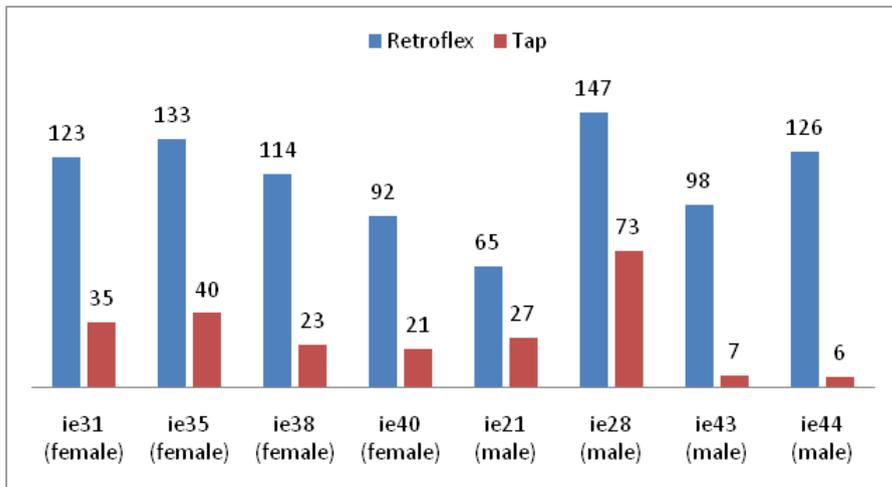
TABLE 10 – Estimates (in logodds) for [r] in relation to speaker sex/gender and their response about accent in Louveira – second age group

FACTORS	Estimate	Std. Error	z value	Pr(> z )	
(Intercept)	-1.97	0.2673	-7.385	1.52e-13	***
No, Louveira does not have an accent	1.10	0.3113	3.546	0.000392	***
Sex/Gender Male	-0.28	0.3151	-0.906	0.364734	
C = 0.640	+ 0,1 < p > 0,05; *p < 0,05; **p < 0,01; ***p < 0,001				

\* Formula: mod <- glmer (VD ~ Response.accent + sex + (1|Informant), data = RCODA, family = binomial)

Out of the 232 tokens of tap in this group, 119 (51%) were found in women’s speech. Figure 3 shows the distribution of (-r) per speaker:

FIGURE 3 – Coda (-r) distribution for second age group informants



Informants IE31 and IE35 – the speakers who pronounce (-r) as tap most frequently amongst the women – are the same who pronounce (t,d) as dentals more frequently in their group. Recall that IE38 and IE40 work in big companies in Louveira, an occupation that promotes their

connection with people from other cities, who speak other varieties. Based on these facts, we expected that they would show higher tap rates, but that is not what our results show. As for the male speakers, IE21 and IE28 both work in big companies in Louveira (differently from IE43 and IE44, who work in small businesses) and are the ones who present the highest tap rates. The four speakers in this group who believe that Louveira has an accent of its own (IE38, IE40, IE43 and IE 44) are also those who least frequently pronounce (-r) as tap – which explains the correlation shown in Table 10.

As stated previously, the retroflex is the most common variant for coda (-r) in Louveira. Those who believe that Louveira has an accent of its own seem to embrace the idea of the retroflex variant as an accent mark, therefore they have no problems on using this variant, nor assuming it as part of their linguistic repertoire. On the other hand, those who claim that Louveira does not have an accent of its own try to support this statement by realizing coda (-r) as tap, which is a variant related to the state capital (according to our speakers’ comments).

Finally, for the youngest speakers (18 to 29 years old), there is also a correlation between their answers to the question about accent and their production of (-r).

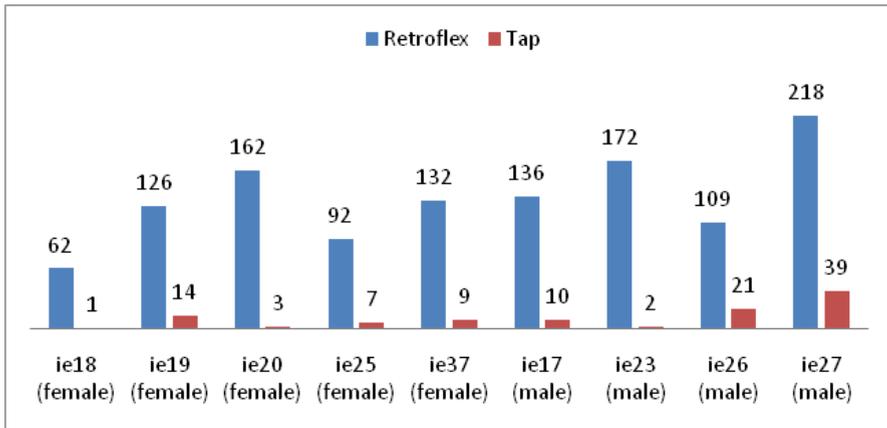
TABLE 11 – Estimates (in logodds) for [r] in relation to speaker sex/gender and their response about accent in Louveira – first age group

FACTORS	Estimate	Std. Error	z value	Pr(> z )	
<i>(Intercept)</i>	-2.91	0.2631	-11.065	< 2e-16	***
No, Louveira does not have an accent	2.55	0.8548	2.981	0.00287	**
Sex/Gender Male	-1.60	0.8519	-1.878	0.06038	.
C = 0.650	+ 0,1 < p > 0,05; *p < 0,05; **p < 0,01; ***p < 0,001				

\* Formula: mod.glmmer <- glmmer(VD ~ Response.accent + sex + (1|Informant), data = RCODA, family = binomial)

Figure 4 shows how the data is distributed per speaker.

FIGURE 4 – Coda (-r) distribution for informants in the first age group



In this age group, 6 speakers answer ‘yes’ to the question about Louveira having an accent of its own: all of the female speakers (IE18, IE19, IE20, IE25 and IE37) and one of the male speakers (IE23). Note that the sex difference is nearly significant ( $p = 0.06$ ), according to the model summarized in Table 11. IE26 lives in a neighborhood that was recently included in the city’s law for urban planning. IE27 lives in a neighborhood characterized by a blend of Louveirenses and migrants from other Brazilian states. Both mention the retroflex variant as an accent mark in the state’s countryside (including Louveira), but also refer to the migrants’ speech as a dialect. As stated by the speakers, the migrants are also part of the community, therefore their variety of speech is part of Louveira’s accent. In this sense, in regarding accents the speakers in this age group make no comparisons between Louveira and other cities. The only comparisons they do make are related to the diversity of the community within Louveira. As these speakers were born in a city with big companies and industries, they see this phenomenon as a characteristic of Louveira – differently from the speakers of the other age group, who witnessed the implementation of these companies and the gradual transformation of the city.

Going back to previous results, there is no correlation between responses about accent and coda (-r) for the speakers in the third age group (TABLE 9) – differently from what we have obtained for the second- and the third-age-group speakers (TABLES 10 and 11, respectively). Those in

the second group (30 to 45 years old) are the ones with the highest rates of tap – a variant that is generally infrequent in Louveira. The speakers of this age group are those who lived the economic changes in the city, which could be the main reason for paying attention to Louveira’s accent. Particularly, the female informants IE31 and IE35 (from the second age group) are the ones that present high rates of tap (-r), even though they work within the community and not in big companies. Speakers from the first age group – born in an industrialized Louveira - follow the same pattern observed for the second age group: those who believe that Louveira does not have an accent are those who use the retroflex and not the tap.

We considered earlier that tap (-r) is above the level of consciousness of our speakers and the results for the second and the first age groups confirm this hypothesis. In these groups, speakers refer to a Louveirense accent by commenting on the retroflex as one of its characteristics. This is not the case for the older speakers (third age group), who talk about accent in reference to immigrants’ descendants, who had moved to Louveira back in time. More generally, our results show that using speakers’ perceptions about accent as a variable is useful to understand linguistic variation, especially when the variable being focused is above the speakers’ level of consciousness.

### **3. Final remarks**

Dental stop pronunciation of (t, d) is ignored in the comments by Louveirenses about accent in the city. Coda (-r) is more sensitive to the judgment by our informants, and it comes as a variable to which positive value or stigma can be easily attributed. In some of our sociolinguistic interviews, our informants commented that the retroflex is typical of São Paulo state’s countryside (which is also shown in other studies, like AMARAL, 1920 and RODRIGUES, 1974). They also say that Louveira is a rich and developed city because of the companies that settled there, which makes it a city that is “not typical of the countryside” –comparatively to other cities of the region. The dichotomy of meanings that seems to operate in Louveira is “countryside vs. capital”: to have an accent is to assume that an individual is from the countryside, while not having an accent is to assume that an individual is from the modern Louveira. Barbosa (2002, p. 69. Translated by us) draws attention to this:

In assuming the negative pole of the dichotomy, in defining his speech as a non-accent, a speech without characteristic traits, although private (as if this were possible), this group corroborates for itself the ideology of the modern and the different, which moved the very construction of the capital, and ratifies the external image that is wanted for the Federal District.

The dichotomy of accents works only for the varieties of speech that are known to the speakers. The relationship between tap (-r) and accent in Louveira is established in reference to the capital of the state. This shows how the relation between cities/communities is important in this for the perception of accent. It can be said that this relationship is based on a “sociolinguistic space”, because it does not always necessarily correspond to a city: it can be associated with an idea that is made of a certain place, near or far from the community that is studied. For example, Louveirenses are unaware that the retroflex variant is also found in the capital São Paulo (OUSHIRO, 2015). However, the idea created in the imagery of the Louveirense speaker is that the capital city cannot present a variant that also exists within the state’s countryside. And in these processes we create the dichotomies about accents, which are the central axes for possible processes of linguistic variation/change to be understood.

This paper has explored the idea of using speakers’ perceptions about accent in a quantitative way – as a predictor for the production of variables. However, our results suggest that such predictor may come up as significant only for variables that are above the level of consciousness. For variables below the level of consciousness, results are most likely to show no significance, but in case linguistic variation is observed, this information may be useful to understand why it is unnoticed by speakers. It is only possible to realize whether a variant is above or below the level of consciousness if a qualitative method is employed. In our study, asking Louveirenses about accent was a way of gathering such data, which was backed by sociohistorical facts. The economic shift in Louveira, in this paper, was the thread that connected perceptions about accent with other variables (such as age group).

## References

AMARAL, A. *O dialecto caipira*. São Paulo: Editora O Livro, 1920.

BARBOSA, A. *Brasilienses e a idéia do não-sotaque no processo de formação de identidade linguística*. 2002. Dissertação (Mestrado) – Instituto de Estudos da Linguagem, Universidade Estadual de Campinas, Campinas, 2002.

CARREÃO, V. *Transformações econômicas e mudança linguística: a língua em Louveira/SP*. 2018. Dissertação (Mestrado em Linguística) – Instituto de Estudos da Linguagem, Universidade Estadual de Campinas, Campinas, 2018.

G1. Indaiatuba é a 1ª do país em ranking das melhores cidades para se viver. *G1*, Campinas, December 2nd 2012. Available at: <http://g1.globo.com/sp/campinas-regiao/noticia/2012/12/indaiatuba-e-1-do-pais-em-ranking-das-melhores-cidades-para-se-viver.html>. Access on: May 3rd 2015.

HOSMER, D. W.; LEMESHOW, S. *Applied Logistic Regression*. 2<sup>nd</sup> Ed. New York: John Wiley & Sons, 2000.

KROCH, A. Dialect and Style in the Speech of Upper Class Philadelphia. In: GUY, G; BAUGH, J. SCHIFFRIN, D. FEAGIN, C. (org.). *Towards a Social Science of Language: Papers in Honor of William Labov*. Philadelphia: John Benjamins, 1995.

LABOV, W. *Sociolinguistic Patterns*. Philadelphia: University of Pennsylvania Press, 1972.

LABOV, W. *Padrões sociolinguísticos*. Trad. Marcos Bagno; Marta Scherre e Caroline Cardoso. São Paulo: Parábola, 2008.

LEVSHINA, N. *How to Do Linguistics with R: Data Exploration and Statistical Analysis*. Amsterdam, Philadelphia: John Benjamins, 2015. Doi: <https://doi.org/10.1075/z.195>

OUSHIRO, L. *Identidade na pluralidade: avaliação, produção e percepção linguística na cidade de São Paulo*. Tese (Doutorado) – Faculdade de Filosofia, Letras e Ciências Humanas, Universidade de São Paulo, 2015.

PRATES, M. O ranking definitivo das cidades mais desenvolvidas do país. *Revista Exame online*, São Paulo, June 8th 2014. Available at: <http://exame.abril.com.br/brasil/noticias/lista-definitiva-das-500-cidades-mais-desenvolvidas-do-pais>. Access on: May 3rd 2015.

R CORE TEAM. R: *A language and environment for statistical computing*. R Foundation for Statistical Computing, Vienna, Austria, 2018 Disponível em: <http://www.R-project.org>. Acesso em: 25 mar. 2017.

RODRIGUES, A. N. *O dialeto caipira na região de Piracicaba*. São Paulo: Ática, 1974.