Evaluation of Progressive Palatalization by University Students

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Abstract:

This research aims to investigate, based on tests of attitudes and linguistic judgments, the social significance of the variants involved in the process of progressive palatalization of the alveolar stops /t/ and /d/, as in linguistic forms of the type ‘mui[t]o ~ mui[tʃ]o’ and ‘gos[t]o ~ gos[tʃ]o’ (I like), by university students from Alagoas. Sociolinguistic studies with spontaneous speech production indicate that this linguistic process suffers negative social pressures (Henrique; Hora, 2012; Mota; Rollemberg, 1997; Oliveira, 2017; Santos, 1996; Souza Neto, 2014), being avoided by younger people, more educated and female. Considering this mapping in the Northeast, this research investigates how the palatalized variant is evaluated in the university environment. To this end, the study takes place through experiments developed with the matched-guise technique (Campbell-Kibler, 2009; Irvine, 2001; Lambert et al., 1960), with the aim of analyzing how subjective aspects of the speaker's identity can interfere in linguistic judgments and highlight socially established values. Therefore, a perception and judgment questionnaire was applied, via electronic form, to 200 university students from the State University of Alagoas - UNEAL. The results suggest a difference in the social meaning of the palatalized variant, depending on the phonetic/phonological context preceding the stop consonant, whether fricative, as in words like ‘gosto’ (I like), or semivowel, as in ‘oito’ (eight). It can be stated that, despite negative evaluation in both cases, when palatalization occurs in a semivowel environment, the negative judgment is more prominent.

Keywords: Variationist sociolinguistics; progressive palatalization; perception.
INTRODUCTION

This work aims to analyze the social significance of the variants involved in the process of progressive palatalization of the alveolar stops /t/ and /d/ in linguistic forms such as ‘mui[t]o ~ mui[t]ʃo’ and ‘gos[t]o ~ gos[t]ʃo’ (I like). To this end, a questionnaire on linguistic judgments and attitudes is administered to students at the State University of Alagoas.

Taking into account sociolinguistic studies that indicate that this process suffers from negative social pressures (Henrique; Hora, 2012; Mota; Rollemberg, 1997; Oliveira, 2017; Santos, 1996; Souza Neto, 2014), this research seeks to investigate how the palatalized variant is assessed in the university environment.

In this sense, the theoretical basis of Variationist Sociolinguistics (Campbell-Kibler, 2009; Eckert, 2000; Irvine, 2001; Labov, 2008; Lambert et al., 1960) is used in order to observe how subjective aspects of the speaker can interfere in their judgments and attitudes. To this end, perception tests and linguistic judgments, carried out via electronic form, were administered to 200 university students.

The matched-guise method was also used (Campbell-Kibler 2009; Lambert et al., 1960) and questionnaires were applied on a semantic differential scale and on a Likert scale, to assess the informant's level of conscious identification and linguistic judgments and attitudes about of the progressive palatalization of alveolar stops (Vogel; Wanke, 2016).

Some questions guide this research: a) does the performance of the palatalized variant trigger a more negative evaluation, on the part of the informant, than the occlusive variant? b) does progressive palatalization in a semivowel context, as in words like ‘oito’ (eight), suffer the same type of social evaluation as in a fricative context, such as ‘gosto’ (I like)? c) are linguistic judgments sensitive to the subjective process of speaker identification?

The work will be organized into three sections, the first being the Social Meaning of Linguistic Variation, which contains the theoretical apparatus used in the research; the second, Methodology, in which the particularities of data collection and processing are presented; and the third, Results and Discussions, where the research data must be presented, as well as its subsequent analyses.

SOCIAL MEANING OF LINGUISTIC VARIATION

All social forces that affect the speaking subject consequently have repercussions on the language, since it is not possible to disassociate the language from the subject or its speech community, which includes considering the entire load of social values, preferences, prejudices, status, etc., as well as the dynamic power relationship that moves social groups, naturally mediated/affected by language. “[...] social pressures are operating on the language. Not from some remote point in the past, but as an immanent social force acting in the living present” (Labov, 2008, p. 21).
Sociolinguistics has been concerned with investigating the processes of linguistic variation and change, considering the set of social values that induce the emergence and establishment of the identity of the individual and the community and, consequently, direct the direction of linguistic phenomena, by providing the extension from the values (positive or negative) of community members to the linguistic forms they employ. The individual's subjective construction of identity is sub-established by the social values of the community in which he lives, so that ‘who am I?’ depends, among other things, on ‘who are we?’, since man is a social animal, the rules and values (explicit or not) of the group must affect its behavior, including linguistic behavior, so that variations are not just about different ways of communicating, but as a way of positioning oneself in the world. This is what Campbell-Kibler, 2009, p. 136:

Proponents of social meaning argue that linguistic variation not only reflects social differences, but is also used by speakers to position themselves within the social world, and through such positioning, to build and rebuild that world […]. The crucial observation is that not only do linguistic behaviors and other related social structures, but that they do so because speakers/hearsers mentally connect them, whether consciously or unconsciously. Social meaning, then, is social content tied in the minds of a given speaker/hearer to a particular piece of linguistic behavior.

Therefore, the social valuation of linguistic forms may not seem obvious, as it is not just about linguistic variation, but about how socially established values determine the speaker's linguistic behavior. Investigating the speaker's linguistic judgments and perceptions means studying, consequently, how social values are transformed into norms and attitudes, which can preserve prejudices and cultivate stigmas.

Status attributions primarily reflect perceptions of socioeconomic status. Because standard varieties tend to be associated with dominant socioeconomic groups in a given society, standard speakers are typically attributed more status than nonstandard speakers. This is especially true in status-stressing contexts, such as the workplace or school, where strong social norms may operate to prescribe the use of standard varieties. The stronger one’s nonstandard accent, the more negatively the person tends to be evaluated. (Dragojevic, 2017, p. 19).

The social meanings of linguistic variants are themselves variable and changeable, but once available, the speaker activates different social prospect evaluations about certain variants depending on the situational expectation of the context.

Therefore, the aim of this work is to investigate the linguistic judgments of Alagoan speakers regarding the process of progressive palatalization of the alveolar stops /t/ and /d/, in variations of the type 'very ~ mui[tʃ]o', 'taste ~ gos[tʃ]o' and 'doido ~ doi[dʒ]o' and identify the values attributed to each of the variants.

The progressive palatalization of alveolar stops, phonologically, occurs in relation to the position of the trigger of the process, generally a phoneme carrying the feature [+coronal], such as the fricatives /s/ and /z/ and the semivowel /ʃ/ in an anterior position to the stops /t/ and /d/. It is understood that there is a progressive spreading of the [+coronal] feature towards the stop consonant, triggering the palatalization process and authorizing the transformation of a stop sound into an affricate (Cf. Bisol, 1991, 2014). What distinguishes progressive from regressive palatalization, in this case, is the position of the coronal feature, which comes after the stop consonants, as in linguistic forms like 'tio' and 'dia'.
Figure 1 – Process of progressive palatalization of alveolar stops

![Tree Diagram]


Figure 1 illustrates how the process of progressive palatalization of alveolar stops results from the spreading of the [+coronal] feature of the oral cavity of the anterior segment towards the root node of the stop consonant, transforming it into an affricate phone. It is this movement that characterizes the progressive process.

This is a linguistic process perceived throughout the Northeast region, mainly in the Litoral and Zona da Mata strip, which runs from Bahia to Rio Grande do Norte (Henrique; Hora, 2012; Hora, 1990; Mota; Rollemberg, 1997; Oliveira, 2017; Souza Neto, 2014).

Alagoas, however, is the state in the Northeast that has the highest production rates, with a percentage that varies between 20% and 25% (Oliveira, 2017; 2018; Oliveira; Oliveira, 2021; Oliveira; Oliveira; Paula, 2018; Santos, 1996), in comparison with other states in the Northeast, whose linguistic production of progressive palatalization of alveolar stops is around 10% or less (Henrique; Hora, 2012; Hora, 1990; Mota; Rollemberg, 1997; Souza Neto, 2014), which makes Alagoas the most productive speech community in the process of progressive palatalization of alveolar stops throughout Brazil.

This research therefore reports on an investigation into the effects of two linguistic variants on the social perception of Alagoas, especially on the behavior of students at the State University of Alagoas, based on the hypothesis based on oral speech data that the palatalized variant undergoes evaluation negative social.

METHODOLOGICAL ASPECTS

The research followed the methodological precepts of Variationist Sociolinguistics (Campbell-Kibler, 2009; Eckert, 2000; Irvine, 2001; Labov, 2008; Lambert et al., 1960), which foresees the spontaneous identification of variable processes in subjective behaviors and attitudes of the speakers.

The data analyzed belong to ‘GEVAL – AL – Study group linguistic variation in Alagoas’ and were collected by filling out an electronic form (google forms) between June and December 2021. The form used for data collection was composed of 65 questions, with 25 questions aimed at measuring speakers' judgments about the process of progressive palatalization and 40 distracting questions, which dealt with other linguistic phenomena.

Using the matched-guise method (Campbell-Kibler, 2009; Lambert et al., 1960), university research approved by the Ethics Committee with CAAE: 57933822.8.0000.5013

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1 Research approved by the Ethics Committee with CAAE: 57933822.8.0000.5013
students were subjected to previously recorded audio stimuli (by the same person), which contained the presence and absence of the palatalized variant², being prompted to fill out an evaluation and perception questionnaire.

Questions were also applied on a semantic differential scale, in order to obtain categorical perceptions about the informants' judgments based on opposing adjectives (ugly~beautiful, correct~wrong, urban~rural, etc.). Furthermore, university students were asked about their perception of linguistic prejudice and the relationship between the production of variants and the speaker's level of school education.

Carrying out the test produced data that allowed analyzes and interpretations of the judgments involving the production and reception of the palatalized variant in Alagoas, as will be presented in the following section.

RESULT AND DISCUSSIONS

The test involved the collaboration of 200 informants, all university students from Campus III of the State University of Alagoas – UNEAL, aged between 18 and 45 years old and of both sexes – although there was a predominance of young and female informants.

Around 34% of survey respondents said they had a family income of less than one minimum wage and 56% said they had a family income of up to three minimum wages. Only around 10% of students at Uneal Campus III reported having a family income greater than four minimum wages, as can be seen in graph 1. This gives a clue to the social class represented by the sample of Uneal students.

Graph 1 – Informant's family income

![Graph showing family income distribution](Signum: Estudos da Linguagem, Londrina, v.26, i.2, p.104-116, aug. 2023)

Universe: Prepared by the authors.

Unlike the NURC Project, Project for the Study of the Educated Urban Linguistic Standard, which, in the 1970s, was based on the assumption that university students were faithful representatives of the educated standard, here, it is not possible to assume that the informants in this research are reliable samples of the standard urban culture in Brazil, since 50 years later, the country's social reality has changed and higher education is no longer a privilege of the highest social classes (Cf. Castilho, 1994).

² This research understands as a palatalized variant the affricated phonetic forms [tʃ] and [dʒ], resulting from the process of progressive palatalization, which are opposed to the plosive forms [t] and [d].
On the other hand, even though Uneal students, on average, belong to the lowest social classes, it is believed that in the reality of Agreste Alagoano, the simple fact that the student is in a higher education course is enough for him to experience certain social prestige, in addition to the fact that the longer period of schooling will give you greater contact with the school standard.

It is believed that the profile established as research informant, someone predominantly young, female, middle-lower social class, directs the judgments established towards the variants involved in the palatalization process. After all, “attitudes towards nonstandard dialects are attitudes which reflect the social structure of society. In the same way, societal values may also be reflected in judgments concerning linguistic varieties” (Trudgill, 2000, p. 09).

In order to investigate possible awareness of production related to the palatalized variant, the informants were asked about the frequency of production. According to graph 2, 62% of informants reported never or rarely producing palatalized linguistic forms of the type ‘muicho’ (very), while around 22% of speakers acknowledged using this linguistic form always or regularly. These data are in line with Oliveira and Oliveira (2021), who found, through collection of spontaneous speech, that the production of these variants in Alagoas is around 20%, which suggests a high level of linguistic awareness among speakers.

**Graph 2** – Awareness of local realization of the palatalized variant

<table>
<thead>
<tr>
<th>Source: Prepared by the authors.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where you live, it is more common to say:</td>
</tr>
<tr>
<td>muito/muicho (very)?</td>
</tr>
<tr>
<td>70%</td>
</tr>
<tr>
<td>60%</td>
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<tr>
<td>50%</td>
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<td>40%</td>
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<td>20%</td>
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<td>10%</td>
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<tr>
<td>0%</td>
</tr>
<tr>
<td>38%</td>
</tr>
<tr>
<td>62%</td>
</tr>
</tbody>
</table>

The research informants demonstrated a perception of linguistic achievement of an ethnic/diatomic nature when relating the process of progressive palatalization of alveolars stops with geographic location. Initially, they were asked about the most common form of speech in their locality and then about the region in which such linguistic forms would be most common. The relevant data here is that part of the students, 38%, report that, in their places of residence, the affricate variant is more productive, which demonstrates a high level of linguistic awareness, since production data suggest the realization of this variant around 20% (Oliveira; Oliveira, 2021).

These data are consistent with those presented in graph 3, which indicate that around 39% are highly aware of producing the palatalized variant and report producing these palatalized variants sometimes, regularly or always. This indicates that although this result does not necessarily represent linguistic production data on the part of the speaker or the community, there is a high level of perception of palatalized variants by these informants.
Graph 3 – Awareness of frequency realization of the palatalized variant

When asked about the region in which the progressive palatalization process would be most productive – despite the majority, 43%, identifying the Northeast Region as the most productive place for palatalization –, among those who identified the process as a typical phenomenon in Alagoas, 17% said it was more common in small cities in Alagoas and only 5% identified the process as a linguistic characteristic of large cities in the state.

These numbers give evidence of the negative social significance that this type of phenomenon may carry, as in addition to having its production inhibited by female speakers, young people and those with more education (Cf. Oliveira, 2018) and being more common in the peripheral neighborhoods of Maceió City (Cf. Oliveira; Oliveira, 2021), this linguistic form is being attributed to speakers from small towns in the interior of Alagoas.

Graph 4 – Association of the palatalized variant with geographic space

When investigating linguistic variation between rural and urban spaces, it is possible to note that while the urban environment favors the establishment of educated norms, rural spaces are
the target of negative evaluations because they harbor linguistic variants considered uneducated. Bortoni-Ricardo (1993, p. 73), when investigating the continuum of linguistic variation, highlights that:

In view of the complexity of linguistic variation in the Brazilian speech community, a methodological resource for describing popular varieties of Portuguese is to work with a scenario of a dialectal continuum. One of the poles will contain the standard language used in urban areas by educated people, of which the Nurc project corpus is representative. At the opposite end, there will be the varieties used in the most geographically and socially isolated communities, by illiterate or semi-literate speakers.

So, when the university student understands that the palatalized variant is more produced in the interior cities or in rural environments, he attests to a negative perception about the variant, especially when production data reveals that the capital of Alagoas is the largest producer of the palatalized variant, reaching 30% completion (Oliveira; Oliveira, 2021).

The attribution of negative values to the process of progressive palatalization can also be seen in graph 5, which illustrates the reaction of informants when asked about their personal impression of this type of variation. As seen in graph 5, around 74% of informants evaluated palatalized linguistic forms with negative values as ugly, wrong or old, which highlights a negative social significance.

Graph 5 – Judgment of the palatalization process

![Graph 5](image)

Source: Prepared by the authors.

When asked about the relationship between the variational process and the speaker's level of education, a high percentage of informants, 68%, responded that the palatalization process is not affected by the speaker's level of school education. Perhaps, this perception arises from a realization of the variant palatalized by all school strata of Alagoas society. Oliveira (2017) observed that, from a production point of view, there was achievement in all educational levels; however, the higher the speaker's level of schooling, the lower the probability of the palatalized variant occurring.

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3 On original: Em vista da complexidade de que se reveste a variação linguística na comunidade de fala brasileira, um recurso metodológico para se descrever as variedades populares do Português é trabalharmos com um cenário de um continuum dialetal. Em um dos polos situar-se-á a língua padrão usada nas áreas urbanas pelas pessoas cultas, da qual o corpus do projeto Nurc é representativo. Na extremidade oposta, estarão as variedades usadas nas comunidades mais isoladas geográfica e socialmente, pelos falantes analfabetos ou semi-alfabetizados.
Likewise, the informants also perceive the existence of social judgments that affect the process of progressive palatalization in Alagoas and the consequent prejudice suffered by speakers, at least this is what 67% of the research informants attest, as shown in graph 7:

Thus, it is possible to affirm that the process of progressive palatalization is judged by the Alagoan speech community and that it falls on the affricated variants – a result of the palatalization process – negative evaluations that result in prejudice and discrimination towards the speaker.

This discriminatory judgment can be better perceived by the following graphs, which illustrate the informants' reactions to auditory stimuli based on audios prepared exclusively for this research. In them, the informants heard linguistic constructions that carried the plosive form – a conservative variant of the process – and the affricate variant – the result of the palatalization process.

When observing the contrast between the information in graph 8, the type of social
judgment that involves the process of progressive palatalization in the state of Alagoas becomes clear. While 31% understood the affricate form as wrong, only 1% had the same judgment with the conservative variant; 40% said that the affricate form is ugly, but only 4% said that the use of the plosive is ugly. More than 70% of informants identified the affricate variant as belonging to someone from the interior, as opposed to 25% in relation to the occlusive variant. While 46% attributed the realization of the affricate variant to someone who was not educated, this perception was only 4% with the occlusive variant. Regarding age perception, 40% of informants attributed the speech to someone older when the affricate variant was used, but this value reduced to 17% when the occlusive variant was used, although the recordings are by the same author.

**Graph 8** – Auditory perception of the progressive palatalization process in a semivowel context

![Graph](image)

**Source:** Prepared by the authors.

On the other hand, this perception of a negative social mark was lower for the affricate variant in the context of the palatalization of the alveolar fricative, with /S/ in a position before the stop consonant, as in words like “like”, as can be seen in the graph 9. This perception corroborates the results found by Oliveira (2017), who had already noted that, in Maceió, the use of palatalized variants in a semivowel context (“eight” and “doido”) was more avoided than in a fricative context.

**Graph 9** - Auditory perception of the progressive palatalization process in the context of a fricative

![Graph](image)

**Source:** Prepared by the authors.
Possibly, this more subtle perception of stigma with the palatalized variant in the context of a fricative occurs due to another phonetic process present throughout the Northeast, which is the palatalization of the alveolar fricative, which authorizes the realization of linguistic forms such as “pa[ʃ]ta” and “pe[ʃ]te”. Therefore, the production of a palatalized phone is already expected in words of this nature, so that when the palatalization process falls on the alveolar stop, the listener's perception is reduced.

Although it is also possible to notice, in graphs 8 and 9, some negative evaluation in relation to the stop consonant – which is the educated and educated linguistic form – it is not known to what extent these values represent a truly negative perception on the part of the listener or if they are just result from a structural error in data collection, in which the university student did not respond honestly to the questionnaire or did not really understand what was asked and the data did not correspond to reality.

In any case, the judgments that occur regarding the process of progressive palatalization reveal discriminatory social behavior that affects the use of the linguistic variants involved in the process, as can be seen in the different evaluations presented in graph 9.

**CONCLUSION**

Considering the particularities of the test and the profile of the informants, composed mainly of young women studying higher education, it is not possible to present a complete picture of the social meaning of the process of progressive palatalization in Alagoas, but it is possible to identify trends in social judgments that affect the palatalized variant.

It is possible to identify that the results of this research point to the existence of a difference in the social valuation involving the palatalized variant, depending on the phonetic/phonological context preceding the stop consonant, whether fricative, as in words like 'like', or semivowel, such as in 'eight'.

These linguistic perception and judgment data corroborate the results of Oliveira (2017), who had already demonstrated, based on spontaneous speech data, that the process of progressive palatalization is favored by the fricative context, while the semivowel context disfavors it. Thus, it is possible to state that, although in both cases there is a negative evaluation, when the affricated consonant occurs in a semivowel environment, the negative judgment is more prominent.

The social meaning that the variant may carry is perhaps linked to the environment in which it is produced, that is, as these are university students who answered the questionnaire within the university environment, it is expected that the social values of this environment reflect in your assessments. But when this informant is in an external environment – such as the home –, it is possible that this variant has another social meaning – perhaps, less marked – having common use, despite the negative evaluation.

Although this research identified a social valuation of the variants based on the stereotype of positive and negative, it was not possible to identify detailed social meanings for this variation. Therefore, it is essential that new studies delve deeper into the investigation of the relationship between these linguistic forms and the situational contexts of use and thus contribute to a more comprehensive and precise understanding of the social dynamics that involve this variational process.
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