New Ways of Analyzing Sociolinguistic Perception

Novos caminhos para a análise da percepção sociolinguística

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The title of this thematic issue of *Revista de Estudos da Linguagem* (RELIN) was intended to attract papers that would focus on new methodologies for the approach of perception in Sociolinguistics, as well as papers that would discuss theoretical issues involved in the study of the social meaning of linguistic variation. The issue comprises seven articles. Three of them (Freitag; Mendonça and Araujo; Carreão) are particularly focused on methodologies to analyze perceptual and attitudinal data, while they also have a descriptive interest vis-à-vis Brazilian Portuguese. Two of them (Canever and Mendes; Lillelund-Holst *et al*.) discuss social meanings of particular variables (in Brazilian Portuguese and Danish, respectively), by employing the matched-guise technique in perceptual experiments. Lastly, although the remaining two (Oushiro; Vaughn and Kendall) also apply specific methodologies for data collection and analysis, they revolve around theoretical points: respectively, a falsifiable and replicable representation for the indexical field of a variable and its variants; and the cognitive representation of stylistically coherent variants and their social meanings.

In her article, Freitag discusses the use of Kappa statistics to measure the agreement among judgments in a perception test. She analyzes data obtained from a verbal-guise, subjective reaction test focusing on the variable pronunciation of (t, d) as stops or affricates in Aracaju (Brazil), and on social meanings related to aesthetics (e.g. sounding pleasant or beautiful), rhythm (quick, singsong) and region.

She asserts that Kappa statistics, in combination with other tests of association, can show aspects of the inter-rater agreement and reliability that can help explain how linguistic change is driven in the community.

Mendonça and Araujo use a software called Iramuteq (an interface of R) to compare the vocabulary used by university students in their evaluative descriptions of four forms: pronouns *a gente* 'we' and *tu* 'you' and nonstandard subject-verb agreement with the pronouns – *a gente vivemos* 'we 1PL live 1PL' and *tu vai* 'you 2SG go 3SG'. This case of variation in Brazilian Portuguese is within the realm of an earlier change through which the verbal inflection paradigm has been reduced, and the article neatly shows how students' evaluations of forms vary according to notions of vitality and standardization (based on CARGILE *et al.*, 1994). Despite the fact that emergent *a gente* and *tu vai* are forms that might be negatively evaluated (particularly the latter, since it is insistently pointed to as a mistake at school), their study shows that *a gente vivemos* is the only one to which stigma is attached. An even more central interest of their article lies in the multidimensional analysis of terms employed by the students in their social evaluations.

The article by Carreão discusses the results of a production analysis of variable (t,d) and coda (-r) in Louveira (a city in the countryside of São Paulo state), in light of the speakers' answers to the question "Do you think Louveira has an accent of its own?" Before [i], (t,d) can be pronounced as dental stops or affricates in Brazilian Portuguese and, while the affricate variants are far more frequent in the state capital (also called São Paulo), the dental variant is relatively less infrequent in Louveira. As for (-r), the retroflex and the tap are the most productive in the state, but the former is less frequent in the capital, while the latter is less frequent in the countryside (including Louveira). By including the speakers' yes/no answers about accent as a predictor in regression models that take (t,d) and (-r) as dependent variables, Carreão shows that there is no correlation in the first case, but there is in the second (for speakers of the second and the first age groups, but not for older speakers). He interprets these facts in consonance with the socioeconomic history of Louveira, which has shifted from a strictly agricultural setting to an industrial hub, home to a number of multinational companies. This has changed the way local speakers perceive their own accent, which in turn can help explain how they talk.

Canever and Mendes examine how competent speakers of Brazilian Portuguese (BP) sound depending on the variable number inflection of infinitive verbs. Based on earlier studies that have discussed how the nonstandard inflection of infinitives can be considered a case of hypercorrection, they use a modified matched-guise task (LAMBERT *et al.*, 1960) in order to check whether speakers sound more educated, more intelligent and more formal in their inflected guises, and whether these perceptions vary significantly according to the syntactic context, the grammatical person and listeners' age. Their results indicate that speakers are judged as more competent-sounding in their uninflected guises, contradicting the initial hypothesis, and that this effect is stronger in hypercorrect contexts than in structures in which inflected infinitives are more frequent in production. According to the authors, this is a case in which higher rates of use translate into more neutral perceptions. In addition, since older respondents present stronger reactions to inflected guises (while younger respondents' judgments tend to be more neutral), their data suggest a change in progress in the sociolinguistic perceptions associated to inflecting infinitives (even though a diachronic examination of the variable does not reveal change in production).

Lillelund-Hurst, Pharao and Maegaard investigate the social meanings of (s) and (t) for Copenhagen girls in two different registers: modern Copenhagen speech and street language. They carry out two matched-guise experiments in order to examine the social connotations of standard [s] and [ts], and fronted [s+] and palatalized [tj]. Both experiments show that variable (s) has little to no effect in both registers, which the authors interpret as surprising, since [s+] is commonly perceived to index femininity and to be an integrated part of the street register. As for (t), the presence of palatalized [tj] significantly indexes non-Danish ethnic background and the Western suburbs of Copenhagen, which are traditionally associated with the working class and mixed ethnic backgrounds. In addition, their data show significant effects of prosodic frames, which link modern Copenhagen speech to intelligence and the Northern suburbs of Copenhagen (a traditionally upper middle class locale), and street language to non-Danish ethnic background, the Western suburbs of Copenhagen, and acting tough. A particularly interesting realization made possible by the analyses in this article is that neither (s) nor (t) index the exact same traits, associated personae, and stereotypes as those found for boys in previous work. While the authors

show that the social meaning ascribed to a particular variant can be highly dependent on the variation with which it co-occurs (a finding that has been portrayed in a number of other studies, e.g. CAMPBELL-KIBLER, 2012 and LEVON, 2014), the comparison between results obtained by using female voices with those of earlier work that used male voices for the stimuli, adds the effect of speaker gender to the relationship between segmental and prosodic variation – carefully controlled in the stimuli.

Oushiro also utilizes the matched-guise technique to examine the association of multiple social meanings to the tap and the retroflex realizations of coda (r) in São Paulo Portuguese. Her data show that, in São Paulo, this variable is strongly associated to geographical identities, from which further inferences arise regarding the social status of the speaker, including their social class, area of residence, level of education, and personal traits such as sounding "articulate" and "hardworking." She discusses the nature of the ideological inter-relations among multiple factual and potential social meanings, and proposes the use of Minimum Spanning Trees (GOWER; ROSS, 1969) as a falsifiable and replicable computational method for representing indexical fields. While such a representation does not constitute a mental mapping of how listeners arrive at their perceptions of how speakers sound, it objectively shows how close or distant social meanings are (according to listener's responses in an experiment) – both in relation to one another and to the variants of the variable being focused upon.

Finally, Vaughn and Kendall utilize a production method in order to approach whether and how stylistically coherent variants (that is, variants that are perceived as conjointly pertaining to a particular style) covary in the speech of subjects in a laboratory setting. As theoretical standpoints for their article, they assume (i) that the perception of social meanings and styles is dependent upon the contributions of a constellation of multiple covarying sociolinguistic variants; and (ii) that this suggests that listeners maintain associations between stylistically coherent variants and their social meanings in mental representation. They asked four American English speakers to produce sentences containing (ING) words (as in *talking* vs. *talkin'*), in their *–in* and *–ing* variants. Then they analyzed the speakers' productions in order to check whether the speakers also manipulated other stylistically-linked variables, even though prompted only to manipulate (ING). Their results show that speakers indeed modulated other variables beyond (ING) in ways that

align with the Southern and casual social meanings of –*in*. This suggests that speakers not only hold indexical linkages between variants and styles in mental representation, but that variants are also linked to variants of other variables through associations with those styles. Therefore, their article argues that a better understanding of social meaning in cognition provides an important base upon which to advance research on sociolinguistic perception.

　　　Although all of the articles in this issue of RELIN fall under the perception umbrella, they also employ other terms to refer to the interpretation of social meanings linked to sociolinguistic production, such as "(social) evaluation" and "attitudes". These notions are certainly all associated with one another, but, in practice, the term "perception" seems to be used more and more frequently (including in the articles in this issue) to refer to subjective reactions to stimuli that contain or are organized according to specific variables, which the participants in the experiment are either not aware of or are led to not consciously focus on. This is particularly evident in the experiments carried out by Canever and Mendes, Lillelund-Hurst *et al*. and Oushiro, in which the matched-guise technique was utilized, among other reasons, as a method to access associations between linguistic forms and social meanings without asking direct questions to the speakers-hearers (though it should be noted that Oushiro and Lillelund-Hurst et al. did start with and open-ended questionnaire, in order to obtain vocabulary that would later be converted into relevant scales for their second, matched-guise experiment). In addition, although Vaughn and Kendall did not perform a perception experiment per se in asking speakers to attend to their production of (ING) but then analyzing how they employed other variables, the speakers were not directed towards employing certain variables of particular variants. Thus, their approach is indicative of methods that can distract the speakers-hearers involved in an experiment from the linguistic variables being focused upon.

　　　In contrast, Freitag's article addresses subjective reactions to linguistic data that were obtained in a verbal-guise experiment consisting of near-minimal pairs of isolated words that did not undergo manipulation. All participants listened to all stimuli – defined by (t,d) variation – and rated them categorically (ugly/beautiful; quick/slow etc), and it is likely that the listeners become more and more aware – as they proceed through the task – of the variable(s) being studied. Thus, this could be a particularly

useful method when the variable of interest is below the level of consciousness (in the terms of LABOV, 2001). Similarly, the data analyzed by Mendonça and Araujo were acquired by directly asking speakers what they thought about all four linguistic forms. The authors were particularly interested in descriptions and variable vocabulary volunteered by the students that participated in the research, and their methodology directly and clearly elicited attitudes associated to linguistic forms. Since speakers might refrain from uttering what they actually "think" about a certain variant, especially when there is stigma or prejudice involved, further work could utilize perception strategies to address this possibility. In the case of Carreão's article, he does not focus on particular variables when asking his speakers "Do you think Louveira has an accent of its own?". However, speakers might simply say "yes" or "no" even when they're not sure. Building on Carreão's work might include employing methodologies that would seek to elicit speaker's evaluation about accented speech by utilizing stimuli containing the variables of interest in ways that would not guide their attention to such variables.

These issues are particularly eloquently stated by Campbell-Kibler (2010, p. 2), in her overview of research on language attitudes, social evaluation and sociolinguistic perception:

> A common concern in attitudes research (…) is the distortion that may occur as a result of conscious manipulation on the part of respondents, for example in order to adhere to social constraints against articulating negative judgments. To elicit responses that participants are unwilling or unable to describe consciously, verbal guise and matched guise techniques have been developed. (…) While listeners are still consciously evaluating the stimuli, they are evaluating specific individuals, relieving them of the social task of conveying an attitude toward an entire group. The differing evaluations of the guises are then taken to reflect participants' attitudes toward the varieties employed and the group associated with them. This connection is assumed to be particularly strong in matched guise work, where the use of the same speakers across guises ensures some level of consistency of paralinguistic cues.

In studying local social evaluations of New York City English, Labov (2006) seems rather radical for the time in his considerations about directly asking speakers about what they think of linguistic variables (especially phonetic ones):

> Most reactions to phonological variables are inarticulate responses (…). They occur as part of an overall reaction to many variables. There is no vocabulary of socially meaningful terms with which our informants can evaluate speech for us. We therefore need to proceed not by direct questions, but by eliciting some kind of evaluative behavior that is sensitive enough to reflect the influence of many variables, and is subject to quantitative measurement. Direct questions are almost useless. (…) Direct questions will tap the reactions of only a handful of exceptionally articulate middle class speakers.

However, it is undeniable that metalinguistic discourse developed by speakers in reference to specific variables are not just revealing of potential social meanings (even when speakers have difficulty referring to specific variables or variants), but also useful for further work that implicitly tests associations between forms and types of speakers, personae or characteristics. Take, for example, Oushiro's (2015) analysis of São Paulo speakers' comments in their answers to the question "What do you think of this way of speaking: *Meu, você tá entend[ejn]do o que eu tô diz[ejn]do?* 'Dude, are you understanding what I'm saying?' The pronunciation of nasal /e/ (indicated as [ejn] here) was purposely and particularly emphatic, in all 118 interviews that she analyzed. Yet, only 2 of the speakers specifically referred to such pronunciation, recalling a characterological figure known as *patricinha* – a type of hyper feminine, frivolous girl who is considered to spend too much time on her looks and on aspiring to a higher social class (similar to the North American stereotype of the "valley girl"). The great majority of the interviewees did not reference that pronunciation in their responses, instead making comments on (i) the use of vocative *meu* as something very particular to São Paulo speakers; (ii) the reduction of *está* and *estou* to *tá* and *tô*, respectively; and (iii) the reasons for being asked such question (as an expression of worry about whether one is being understood).

These evaluations are in line with results of production analysis: the diphthongization of nasal /e/ (41% in a sample 7,235 tokens) is favored in the speech of women, higher classes and in the deployment of careful styles (OUSHIRO, 2015). Both the distribution of data in the community (considering the representativeness of the sample) and the speakers' metalinguistic comments (or lack thereof) on nasal /e/ constitute fairly strong evidence that the variable functions below São Paulo

speakers' level of consciousness. Based on these findings, Mendes (2016) designed a matched-guise experiment in which the stimuli were organized according to nasal /e/ (as a diphthong or a monophthong). Four speakers were listened to by 44 respondents in one of their guises, and then were rated in various scales (including femininity and Paulistanity – the quality of sounding like a genuine speaker from São Paulo). In addition, listeners could also pick out traits that they thought were useful in describing the images that they had formed of the speakers, based on what they heard – among which was the term *patricinha*. Mendes's analyses of the listeners' ratings showed a significant effect of nasal /e/ on how feminine one of the female speakers sounded – but not the other, who in turn sounded significantly more or less like a genuine São Paulo speaker depending on the guise (differently from the former). Thus, femininity and Paulistanity can be considered as social meanings (potentially) associated with diphthongized nasal /e/, integrating the indexical field of the variant – although São Paulo speakers are frequently unable to make any metalinguistic comment on the variable when directly asked about it. Furthermore, very few of the listeners marked the characteristic *patricinha* on the perception form, suggesting that, although this was a comment volunteered by two of Oushiro's interviewees, the relationship between nasal /e/ and such a characterological figure is likely not strongly enregistered in the community (AGHA, 2007).

In sum, the research of social meanings associated to linguistic forms can utilize several methods: (i) asking subjects to provide metalinguistic commentary about variables; (ii) inferring them from practices in a certain community; (iii) applying experiments that carefully avoid directing listeners toward specific variants. In addition, we can also ask speakers to produce certain variables, while our analysis of such production will also look into other variables that they conjointly end up using (as in Vaughn and Kendall, this issue). The second method listed above would probably be more efficient in communities of practice, rather than in a larger community (considering that sampling methods of speech in a larger community usually do not include the observation of actual practices). Metalinguistic commentary, though very useful to help verify if a variable is "above the level of conscience", may yield speakers' attitudes and ideologies (which may be the actual goal of a certain study, as in Mendonça and Araujo, this issue), rather than actual social meanings that they operate with in their practices. As for perceptual

experiments, although they can certainly help us figure out which social meanings integrate the indexical field of a variable or variant, they are not necessarily efficient in testing for meanings that would only arise locally, in particular practices. In isolation, none of these methods are sufficient and our research on language attitudes, social evaluation of linguistic forms and sociolinguistic perception should strive to take advantage of all of them.

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