The effect of salience on co-variation in Brazilian Portuguese

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The study of co-variation investigates whether multiple variables in a speech community cohere in forming sociolects (Guy 2013). Since patterns of social stratification and style-shifting are recurrent for different variables and communities, one can reasonably expect that variables should also correlate with one another. Previous works have shown co-variation not only between structurally related variables (e.g. *ael* and *oh*-raising in NYC English, Labov 1966; NP and VP agreement in Brazilian Portuguese, Guy 2013), but also between structurally unrelated pairs (e.g. denasalization and NP number agreement in Brazilian Portuguese, Guy 2013). But it is still unclear which internal and external constraints promote co-variation.

This paper examines the effect of phonetic salience (Naro 1981, Scherre 1988) on co-variation, in a set of 5 variables of Brazilian Portuguese: retroflex pronunciation of *ca* /t/ (*porta* ‘door’); coda /r/ deletion; nominal agreement (NP); and verbal agreement in first and third person plural (1PP-VP, 3PP-VP). We show that speakers who use more salient forms (e.g. nonstandard 1PP-VP as in *nós vai* ‘we go’) also tend to use other relatively less salient forms (e.g. nonstandard NP as in *osmenino-o* the(pl.) boy(sg.)’), but the reverse is not always true. Furthermore, highly salient variants co-vary more strongly with other highly salient variants.

In a sample of 118 speakers, each variable was first analyzed separately in mixed-effects models in R, with speaker as a random effect. And cross-correlations were calculated through Pearson correlation coefficients, based on speaker’s weights for nonstandard variants (p<.05*, .01**, .001***). We found that *r*-deletion correlates with *r*-retroflexion (r=.31***), and the two phonological variables co-vary with NP (r=.22*; r=.23*) and with 3PP-VP (r=.34***; r=.31***), with which they share no structural relation. All morphosyntactic pairings are significantly correlated, but, contrary to what might be structurally expected, correlation between NP and 3PP-VP (r=.70*** is stronger than that between 1PP-VP and 3PP-VP (r=.30***). A closer examination shows that use of nonstandard 1PP-VP correlates with nonstandard 3PP-VP, but use of standard 1PP-VP does not predict the use of 3PP-VP. This implies that co-variation between a pair of variables is not necessarily symmetrical, and that there is an implicational scale based on variants’ social markedness.

Given that non-agreement in 1PP-VP is the most socially marked among these variants, we tested the hypothesis that the phonetic salience of variants constrains co-variation, by running alternative cross-correlation analyses with only more salient tokens of 3PP-VP (Naro 1981; e.g. *disse/disseram* ‘they spoke’, which is appreciably more salient than *conome/comem* ‘they eat’) and NP (Scherre1988; e.g. *caminhão/caminhões* ‘trucks’, vs. *mening/meninos* ‘boys’). In comparison to the previous analysis, salient 3PP-VP correlates less strongly with NP (r=.49*** vs. r=.70***)) and more strongly with 1PP-VP (r=.34*** vs. r=.30**); salient NP correlates less strongly with 3PP-VP (r=.63*** vs. r=.70***)) and more strongly with salient 3PP-VP (r=.48*** vs. r=.45***)) and 1PP-VP (r=.30** vs. r=.26*). Correlations with phonological variables are overall unaltered. Thus phonetic salience plays a significant role in co-variation between structurally related variables in enhancing the correlation between more salient variants, which explains why structural similarity alone doesn’t predict the correlational hierarchy.
References