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Mixed Methods Unveil Rhetorical Stress in Naturally-Occurring L2 Instructional Speech

Abstract:

Rhetorical word stress, i.e. acoustic prominence on non-primary syllables, has been identified as a feature of public, presentational, and didactic speech styles in Spanish through theoretical descriptions, intuitive accounts, and laboratory-based empirical research. Despite some disagreements, most scholars agree that non-primary stress is cued by pitch and primary stress is cued by segment lengthening. I offer a novel perspective on the rhetorical stress phenomenon by presenting an experimental study exploring naturally-occurring speech data through a mixed methods approach. For the study, I collected audio recordings during classes taught by four teaching assistants (TAs) of intermediate second language (L2) Spanish at a large midwestern research university. I extracted words containing rhetorical stress and similar words containing only primary stress, then measured the prosodic correlates of pitch, intensity, and duration of each vowel. To aid in the interpretation of quantitative data, study participants also completed background questionnaires about their linguistic history, education, and teaching experience.

Results from acoustic analyses of the data support hypotheses that pitch is the main correlate of rhetorical stress and duration is the main correlate of primary stress. Stress clash was not avoided by study informants, and the TAs utilized both initial stress and alternating stress patterns in longer words. Contrary to previous findings, intensity was also strengthened in rhetorically stressed syllables in the data set, following the same strengthening pattern as pitch, thus indicating that pitch and intensity work together in the production of rhetorical stress during L2 classroom instructional speech. This evidence suggests that rhetorical stress is produced differently than primary stress and fills both didactic and communicative functions in the classroom. Teachers use the stress phenomenon to establish authority and get students' attention. Additionally, descriptive analyses revealed that while all TAs produced instances of rhetorical stress, two of the speakers produced the phenomenon more than twice as often as the other two. Individual differences between the TAs such as native-speaker status, teacher training, and prior experience elucidate possible explanations for the varied frequency of usage across speakers.

The observations and analyses presented provide a unique outlook on rhetorical stress in Spanish, thus further reinforcing the importance of naturalistic data elicitation settings and mixed methods designs for research on speech style prosody. Furthermore, the identification of the stress phenomenon in student-directed speech has implications for L2 teaching and learning. "Teacher talk" can provide discourse clues and aid student comprehension, but it can consequently diverge from naturalistic speech styles in other spoken contexts with regard to prosody, and these are important details to account for when considering L2 input.

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