

Cues to the perception of prosodic breaks in Brazilian Portuguese

Carolina Serra^{*} & *Sónia Frota*[^]

^{*}Universidade Federal do Rio de Janeiro; [^]Universidade de Lisboa
carolinaserra@letras.ufrj.br; sonia.frota@mail.telepac.pt

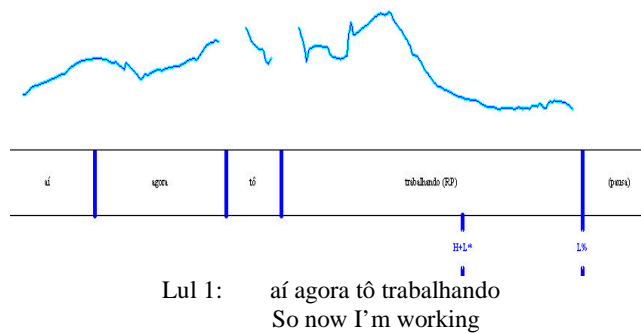
This paper focus on prosodic phrasing in Brazilian Portuguese (BP) with three related goals: (1) to capture the relation between prosodic breaks as established by prosodic hierarchy theory (e.g. Nespor & Vogel 1986; for Portuguese, Frota, 2000; Tenani, 2002) and perceived prosodic boundaries in read and spontaneous speech; (2) to describe the phonetics and phonology of intonational breaks, namely the inventory of tones and the way they are realized (Ladd, 1996); (3) to assess the most prominent cues to the perception of prosodic breaks for each speech style.

It is known that the location of prosodic boundaries is somehow related to the location of syntactic boundaries. Prosodic hierarchy theory captures this relation via syntax-phonology mapping principles which, combined with phonology-proper constraints, predict the preference patterns of prosodic phrasing in production and comprehension (e.g. Selkirk, 2000; Watson & Gibson, 2005; for Romance languages, Elordieta et al., 2005; Frota et al., 2007). Previous descriptions of prosodic breaks within Romance (based on read isolated sentence corpora and from a production viewpoint) show that the main boundary cues are a H boundary tone and a F0 rise (Frota et al., 2007). With this study we aim to contribute to the cross-linguistic knowledge about the placement and shape of prosodic boundaries, by bringing BP data into the discussion and by looking at the relation between perception and production.

Our corpus consists of 3 spontaneous and 3 read speech passages of about 2 minutes each. Read passages (RS) result from the orthographic transcription of spontaneous speech (SS) obtained in an interview setting. There is therefore a (nearly) perfect match between the materials for the two styles. 11 subjects listened to the 6 passages and had to signal the prosodic breaks they perceived in each passage. Passages were presented twice. Breaks should be signaled on a piece of paper containing the orthographic transcription of each passage, without any kind of punctuation marks. To assess consistency, listeners repeated the task in 2 sessions, in different days (for each session the items were randomized differently). The task was preceded by a training phase. Speakers and listeners were all university students, born in Rio de Janeiro, aged between 22 and 38.

Preliminary results strongly indicate that prosodic breaks are mainly perceived at intonational phrase (IP) boundaries, irrespective of speech style (SS 92%; RS 99%). However, for RS 60% of the IP-boundaries established on the basis of prosodic hierarchy theory were perceived as breaks, whereas for SS only 40% of these were so perceived. These results suggest a difference in prosodic phrasing across speech styles, regardless of syntax. The main cue to the perception of a break is the presence of a pause, for both styles (90%). The nuclear contour of declaratives in Portuguese (H+L* L%) characterizes 65% and 40% of perceived breaks respectively in RS and SS (Fig.1); against previous results, the main boundary tone is L%, especially in RS (RS 85%; SS 56%). Although similar intonational cues are being used, their relative frequency seems to set speech styles apart.

Figure 1 – IP (perceived break)



Selected References

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