The C-ORAL-BRASIL Project

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Subprojects in progress:

- Compilation of a BP spontaneous speech corpus
- Study of: main speech measurements, information structure, and BP illocutions, based on the Informational Patterning Theory (CRESTI 2000) (T. Raso)
- Study of modality and its expression in BP (H. Mello)
- Comparative studies in grammaticalization and lexicalization between BP and EP with a view to language contact phenomena (H. Mello and T. Raso)

The C-ORAL-BRASIL CORPUS

This is the fifth leg of the C-ORAL-ROM (CRESTI-MONEGLIA 2005); and as the C-ORAL-ROM it comprises the following:

- at least 30 hours and 300.000 words of spontaneous speech, divided in at least 200 texts, half informal and the other half formal and phone interactions;
- the transcription should be done following the CHILDES CLAN system (implemented through prosodic annotation);
- utterance and tone unit segmentation (MONEGLIA-CRESTI 1997);
- F0-sound-text alignment through the WinPitch software (Ph. MARTIN);
- Information unit tagging (following the Informational Patterning Theory (CRESTI 2000);
- Morphosyntactic and POS tagging and concordance lists through the PALAVRAS computational grammar (E. BICK).

Some advantages of the *corpus*

- immediate comparability, due to its architecture and annotation criteria, to the languages documented in the C-ORAL-ROM (EP, Italian, French and Spanish);
- systematic documentation of diaphasic variation and partial documentation of the diastratical variation of the Mineiro dialect;
- segmentation into utterances and tonal units;
- immediate accessibility to sound to text alignment and to spectrograms;

•information unit tagging database;
•morphosyntactic POS tagging (E. BICK);
• concordances;
• speech measurement calculations for (based on time and number of words): number of utterance; number of tonal units; number of retractings and interruptions (utterances and words); number of utterances with and without verbs; number and placing of negation particles and conjunctions (*e* 'and', *mas* 'but', *porque* 'because', *que* 'that' (beginning of utterance, beginning of unit, within unit, dedicated unit).

Phase 1 (2007-2009): the informal *corpus*

- Objective: at least 100 spontaneous speech texts: 1/3 monologues; 1/3 dialogues; 1/3 conversations (80% in family/private contexts and 20% in public contexts). Recording, transcription, segmentation, alignment, informational and morphosyntactic tagging.
- Equipment: digital recorder Marantz PMD660; kits wireless sennheiser evolution EW100 ENG G2 (receiver, transmitter, clip on microphone, batteries); omnidirecional microphones sennheiser MD421; mixer Xenyx 1622 (6 channels).

What we have right now

•Recordings: around 220 (text number is superior to that), most in stereo. Recordings are still being done despite the fact that we have reached our goal.
• Segmented transcriptions: around 80, revisions around 30, alignment around 15, informational tagging 5.
• Balanced 5,000 utterance mini-corpus for preliminary studies.

Next steps

• Finish up transcriptions, revisions and alignment.
• Go on with tagging.

The diaphasic variation

-It allows us to study speech structural variations, based on the following oppositions:

• formal vs. informal; public vs. family/private; dialogic interaction vs. monologic interaction;

- It also allows the collection of different speech acts, based on the multiple activities performed by informants.

Examples: people grocery shopping and shoe shopping; construction worker and an engineer at a construction site; people playing cards; a student helping another one with a recorder; driver and passenger talking in a car; waiters waiting at a party; 4 people playing soccer and pool; a mother telling a story to her child; people telling dramatic moments of their life or explaining their job; jokes; recipes, etc.

Interlinguistic comparability

It allows us to check:

- shared speech features and particular features of a given language;
- the specificities of a Romance language outside Europe, such as BP, in comparison with European Romance languages;
- features likely to result from contact phenomena, in a comparison between BP and EP.

Transcription criteria

Text sizes: 70% will have around 1,500 words; 10% will have around 4,500 words; 20% will have less than 1,000 (only if textually autonomous).

Transcriptions are done by expert transcribers (usually people who made the recordings); later they are revised by another transcriber; a second revision is made during the alignment process; a third one during the informational tagging.

Statistical validation for the prosodic agreement among 3 transcribers shows a kappa always over 0,80 (over 0,90 for terminal breaks).

Transcriptions are orthographic, with some modifications to represent some specially significant speech aspects such as:

- lack of plural markings: *os menino bonito 'the-PL boy-SG handsome-SG'*;
- plural marking in invariable words: *ques menino bonito 'what-PL boy-SG handsome-SG'*;
- subject cliticization: tonic *você, ele 'you, he'* vs. clitic *cê (cês), e'* (*ea, es, eas*);
- reduction of demonstratives (*aque´'that-MASC'; aquea 'that-FEM', daques 'of those-MASC', etc.)*
- contraction of articulated prepositions: *pro, pra, pros, pras 'for the'*; *co, ca, cos, cas 'with the'*; *dum, duma, duns, dumas 'of the', etc.*
-apheresis: *tá, tava, tando, etc. (< estar 'be')*; *güento (< agüento 'stand'), pera (<espera 'wait'), etc.*

- reduction of the verbal paradigm (*nós faz < nós fazemos "we do"; es diz < eles dizem "they say";* etc.);
- serial verbs (*ele foi falou "he went said"; ele pegou falou "he took said"*, etc.)
-apocope: expressions such as *po' fazer < pode fazer "(you) can do (it)", o' <*olha "look";
- diminutive forms: *sozim <sozinho "alone"*, *certim <certinho "right-DIM"*, *etc.*;
- exclamations: *Nossa < No' "Our Lady", Vixe'* <Virgem Maria "Virgin Mary";
- loss of copula in interrogative and cleft constructions (*que que cê fez < o quê é que você fez "what did you do"; por que que cê veio < por que é que você veio "whay did you come"; ele que veio < ele é que veio "he was the one who came", etc.*)
- cliticization of negation;
- etc.
-The corpus will have a glossary of non-orthographic forms and the criteria followed. In principle, only features that have a chance of being grammaticalized or lexicalized are marked.

Metadata

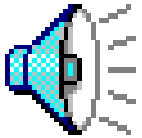
Each text has the following set of metadata:
-Title;
-File name (eg. bfamcvo1 means that it is the first text in the Brazilian-family-conversation group);
-Acoustic qualify (A, AB, B, BC or C) defined by parameters such as instruments used, environment noise level, number of overlappings, percentage of legible or reliable prosodic curve;

- Recording length in time units (only the transcribed and aligned parts);
- Number of words;
- Place of recording;
- Class: eg. Informal: family_private: dialogue;
- Subject (what is being talked about);
- Setting (eg. Friend being interviewed at home during lunch time, microphone not hidden, researcher interacts with subject);
-Participants. For each participant it is necessary to point out:
• first name and three letter abbreviation (eg. BAO, Bruno) in order to indicate turns in the transcription;

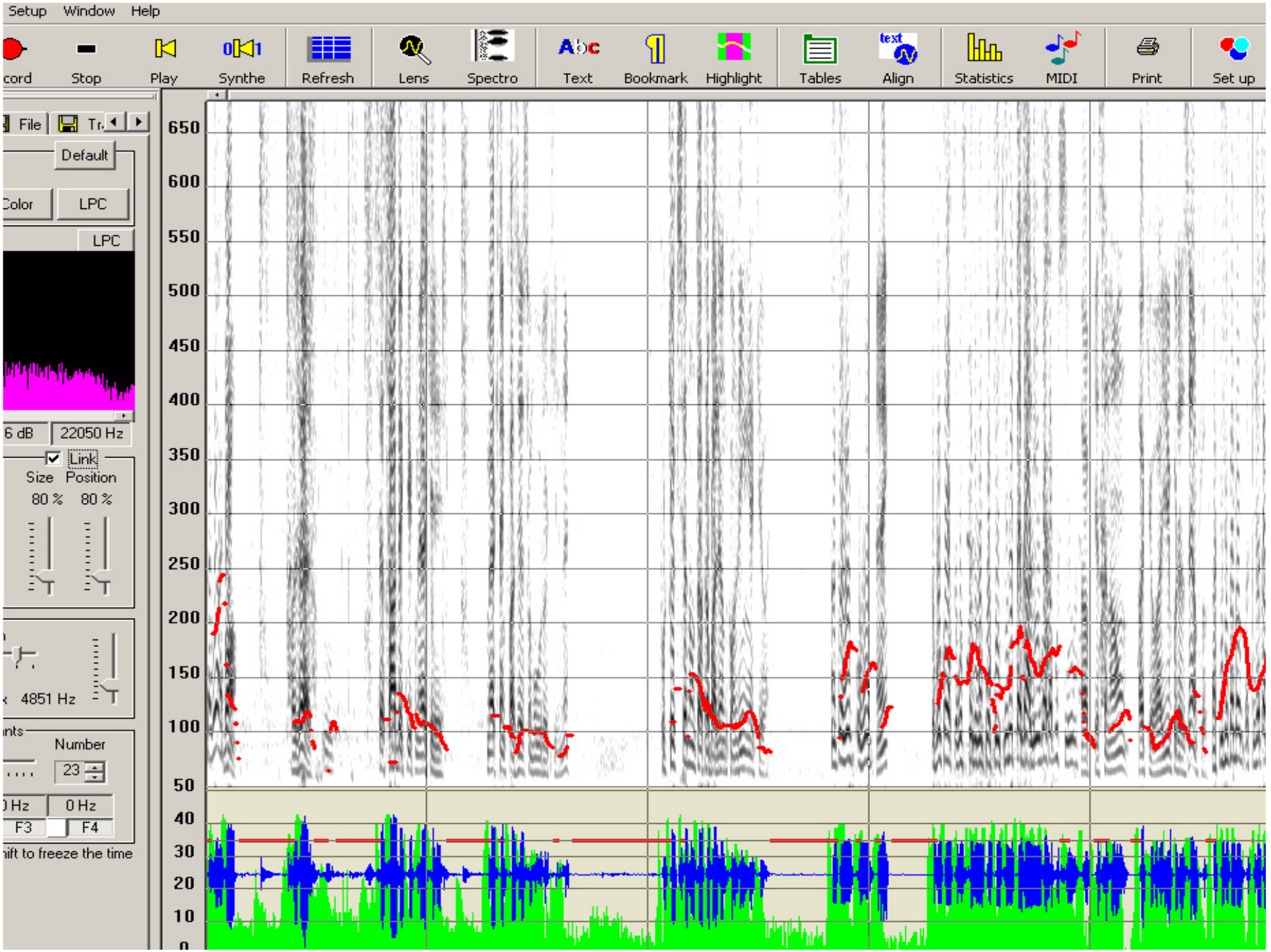
• role (if he/she takes part in the interaction, if he/she is an interviewer, and what participation he/she has);
• origin;
• gender;
• age (A = 18-25 years old, B = 26-40, C = 41-60, D = more than 60, M = underage, X = unknown);
• schooling (1 = no schooling or up to grade school, 2 = high school graduate or college graduate whose profession does not require the title, 3 = college graduate whose profession require the title or post graduate);
• occupation.

All participants sign an agreement form, approved by the Ethics Committee.

Example: transcription and segmentation



*PAU: bom // Rogério //
*ROG: hum //
*PAU: cê sabe aqui como é que [/3] como é que tem que fazer esse muro aqui / né // por que que cê não tá trabalhando com linha aqui o' //
*ROG: ah / então eu vou [/2] eu vou &f +
*PAU: hein //
*ROG: eu vou &coloc [/3] eu vou suspender mais um pouquinho aqui / e vou pegar a linha e colocar por cima //
*PAU: ah / porque se não + aqui o' // aí / por exemplo +
*ROG: aqui já tá dando [/4] aqui já tá dando a altura //
*PAU: o' aqui + não // tá dando a altura daquele que a Isa /
*ROG: é //
*PAU: / marcou lá / <né> //
*ROG: <que a dona> Isa marcou ali //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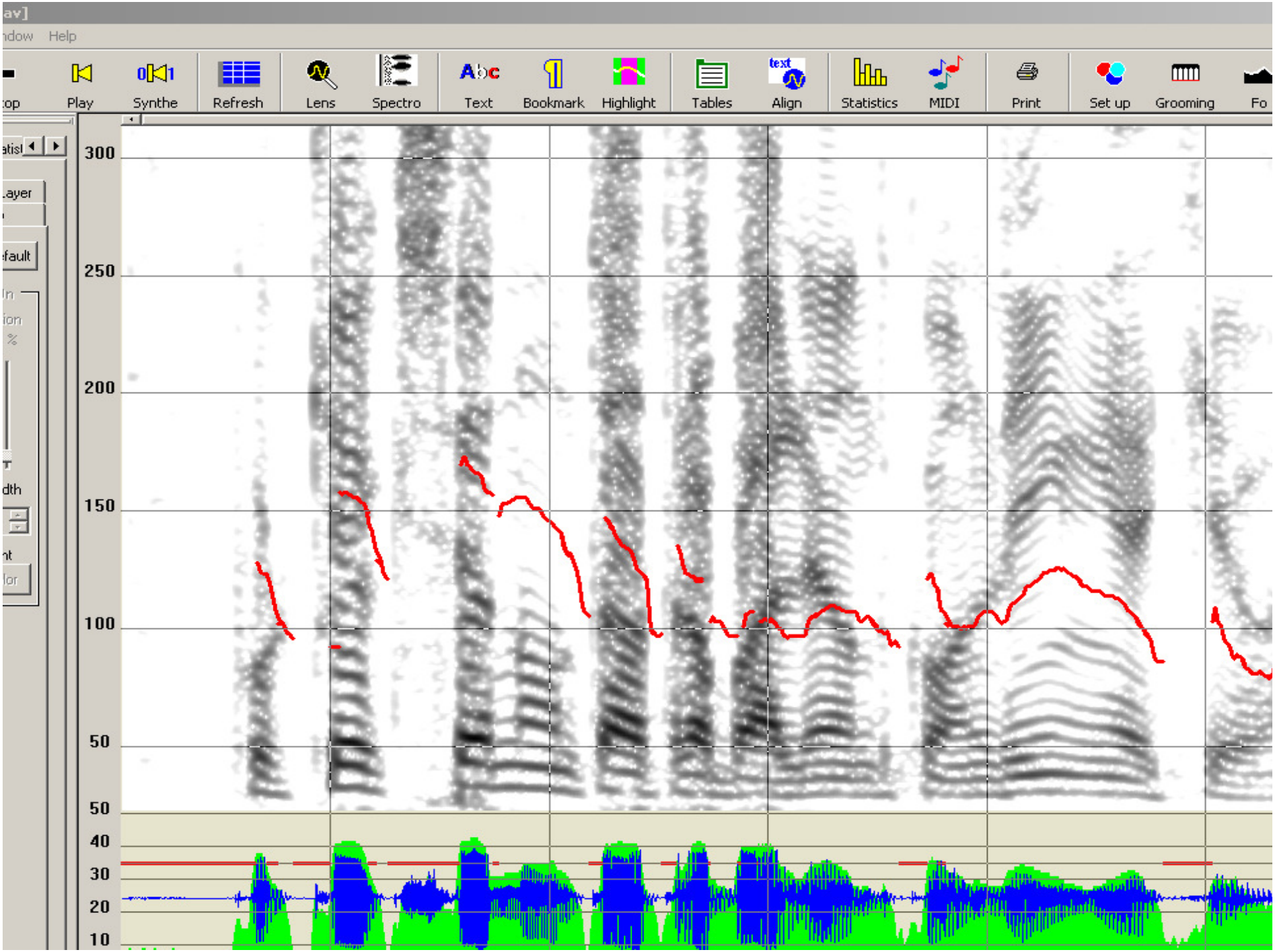
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Segmentation criteria

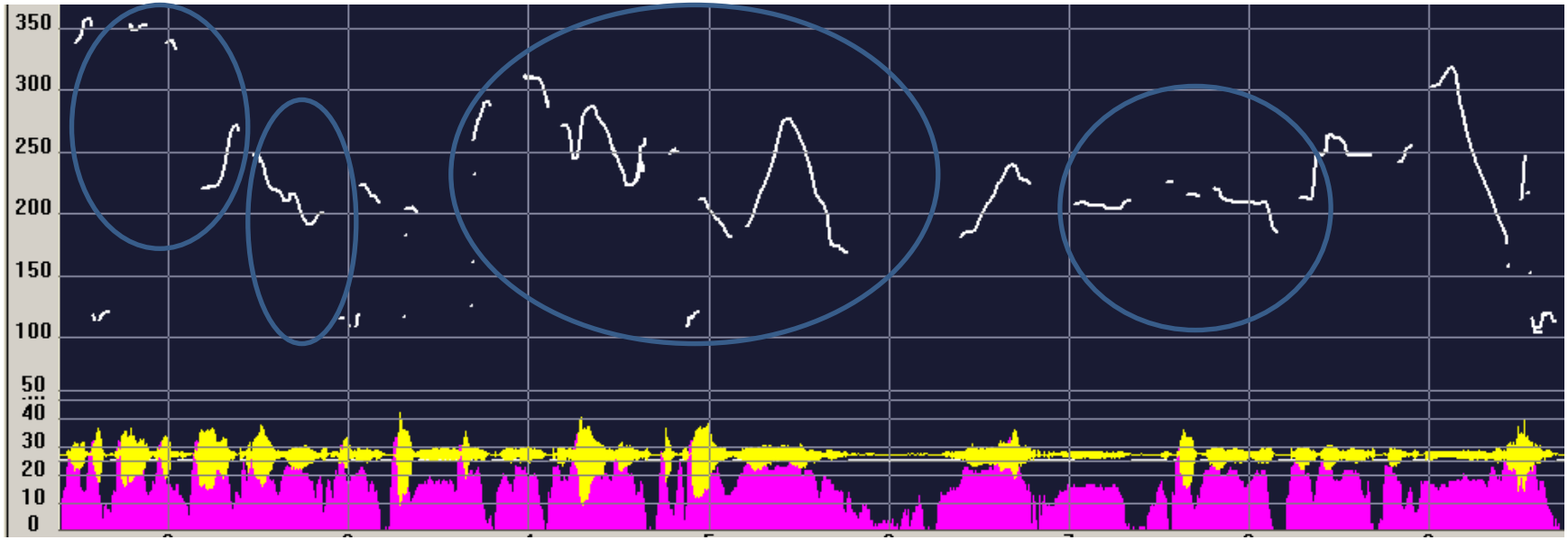
Terminal break (//): indicates the end of an utterance, that is, the smallest autonomous interpretable unit.

Non-terminal break (/):indicates tonal unit within an utterance – in principle, it is an information unit.

Retracting ([/n]): some execution problem – it could have a partial or total repetition, or no repetition. The n indicates the number of words cancelled by the speaker and shouldn’t be counted.

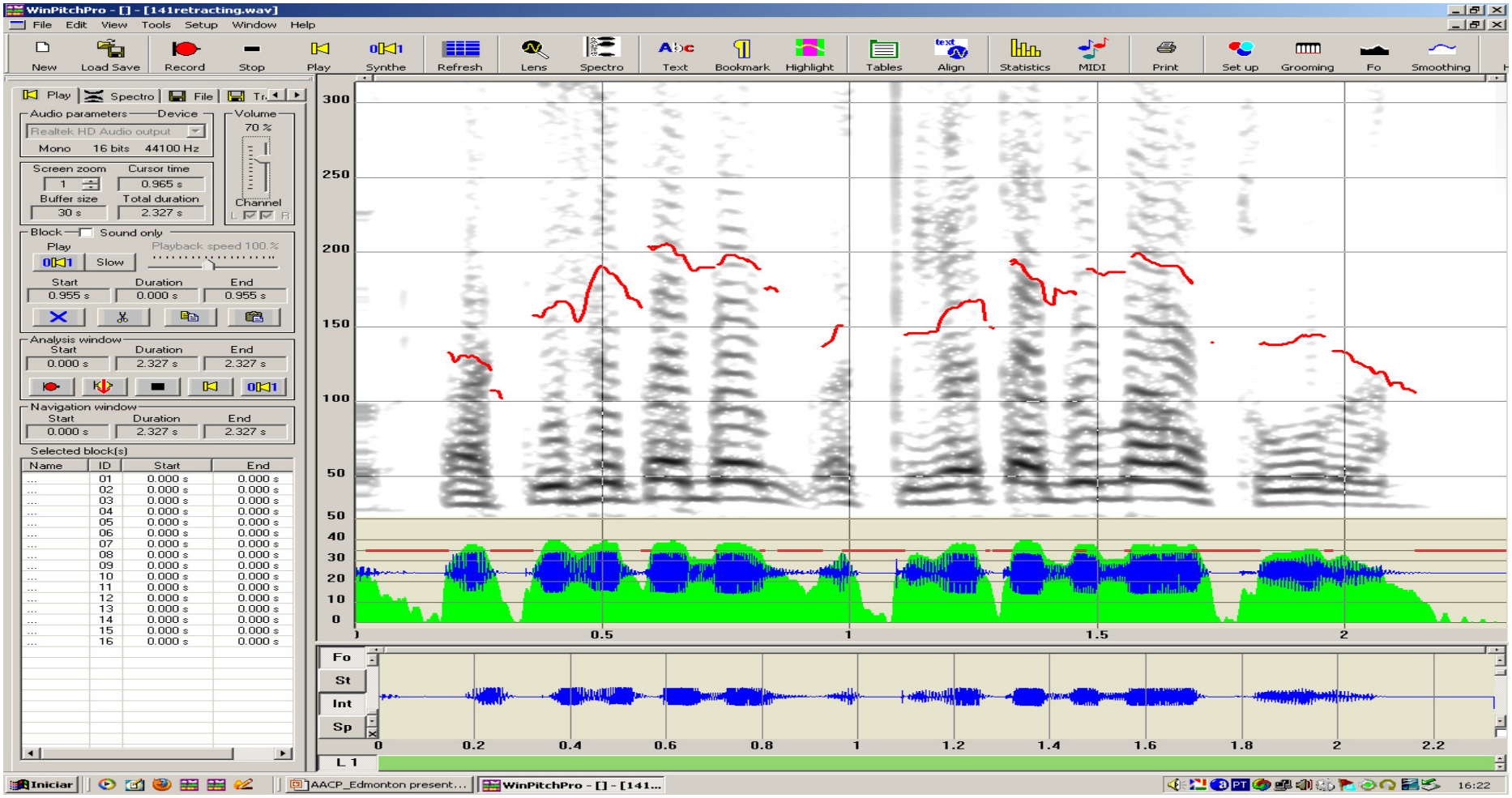
Interrupted utterance (+): when for some reason, the program is not completed.

Tagged complex utterance



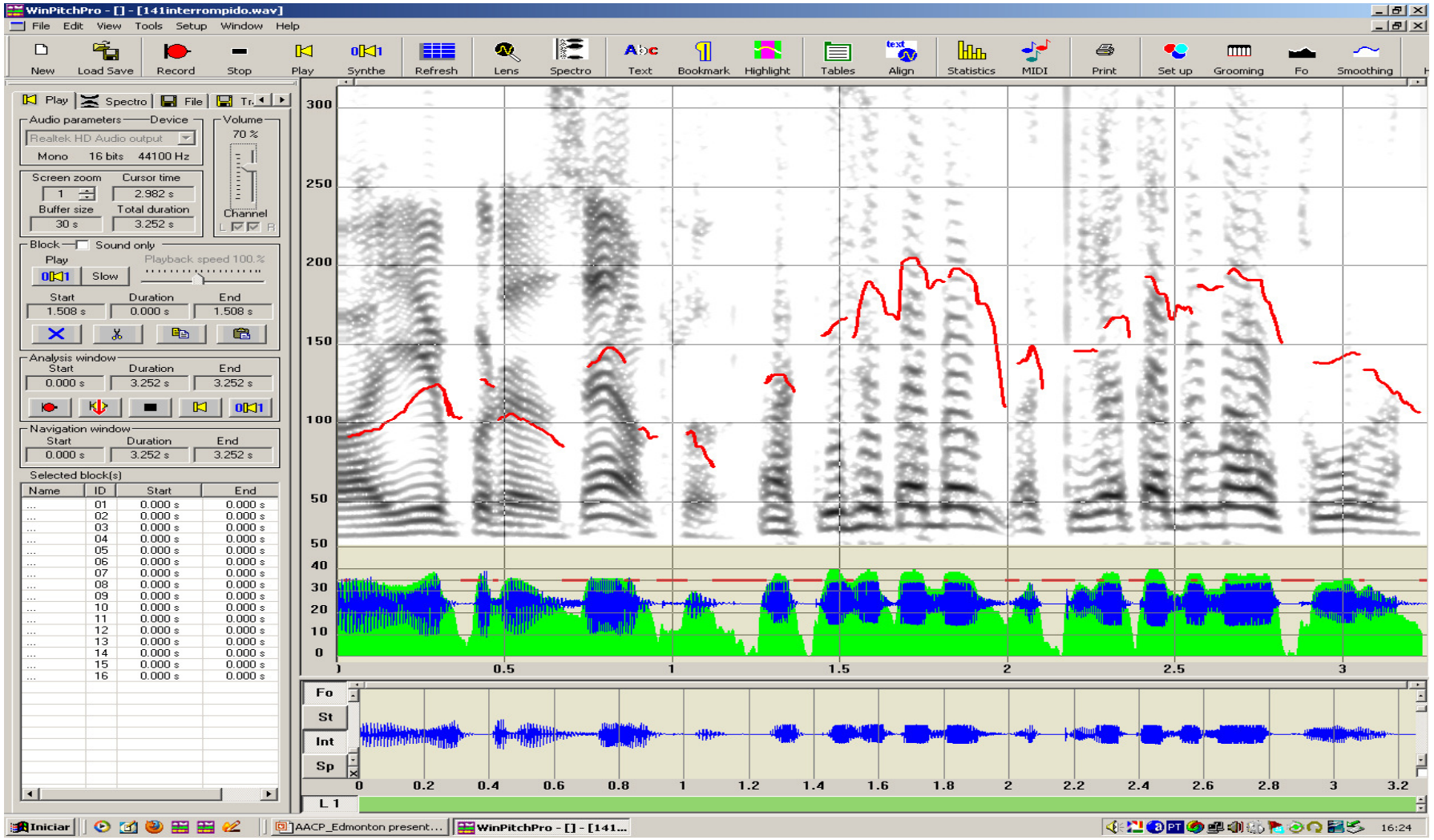
Tudo que é de bom /=TOP= pra gente /APT que a gente tá se sentindo que realmente tá fazendo /=TOP= né /=AUX= e [/] e que tá dando retorno /=APT= a gente continua //=COM=

Retracting



aqui já tá dando [/4] aqui já tá dando a altura //

Interrupted utterance



aí / por exemplo +

Thanks //COM

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