## In search of modality: a spontaneous speech corpus based study

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Modality in speech can be taken to be a speaker's evaluation of an uttered locutive material. However, precisely defining this category is a difficult task, since, according to Venn (1888, p. 245), "[modality is] [a] variety of place upon that most thorny and repulsive of districts in the logical territory." This difficulty stems from different factors: (a) in its study tradition, modality has been the subject matter of both logical studies and natural language studies, which implies a methodological maze not always productive for the research on its actual linguistic use; (b) this category interrelates with a number of grammatical phenomena such as time, aspect and mood, prosody, information organization, among others; and (c) the concept of modality itself overlaps those as attitude, illocution and emotion. This paper explores the semantic notion of modality through the analysis of a Brazilian Portuguese spontaneous speech corpus. The building of the corpus took into account the utterance unit, as it is proposed in the Speech Patterning Theory (CRESTI, 2000). It aims to present the modality studies developed so far within the C-ORAL-BRASIL corpus. The C-ORAL-BRASIL is a spontaneous speech Brazilian Portuguese (BP) corpus, the fifth branch of the C-ORAL-ROM, a comparable corpus representative of the four main European Romance languages (Italian, French, Spanish and Portuguese), prosodically segmented into utterances and tone units, and aligned with the software WinPitch — allowing at the same time the examination of sound, spectrogram and text. The subcorpora composing the C-ORAL-ROM have, for each language, 300.000 words; 150.000 comprise the formal part and 150.000 the informal. The informal half - 139 texts, around 208.500 words —, the only one used for this study, is divided equally in three interactional text typologies: dialogic, monologic and conversational. The C-ORAL-BRASIL represents the diatopy from Minas Gerais, mainly the metropolitan zone of the capital of the state, Belo Horizonte, and provides a balanced diastratic description.

The studies discussed in this paper focus on: the identification of morpholexical modality indexes in tone units, a comparative study between the modal adverbs of certainty in a sample of Brazilian and European spontaneous speech corpora, a study on the epistemic character of conditional constructions, the description of modal indexes and their pragmatic-cognitive consequences, the mapping of modal adverbial constructions in Brazilian Portuguese. In all these studies, we carried a qualitative analysis, in order to describe the occurrences of the different modal indexes, such as for example: (semi-)auxiliary modal verbs, modal adverbs, verbs of propositional attitude, volitional verbs, modal adjective constructions and emerging forms. Quantitatively, the types and instantiated tokens were classified according to textual typology (public versus private, monologue versus dialogue versus conversation), genre (narrative, expositive, argumentative, instructional) and speaker schooling level (roughly, level 1: primary school, level 2: secondary school, level 3: college and professional education). For the quantitative analysis, we applied statistical tests that reach for a multivariate analysis, to cross-analyze the variables, and establish a representative frame of the usage of modal strategies in BP spontaneous speech. In order to carry these analyses we used the software R, a language and an environment (a fully planned and coherent system), which provides the use of statistical techniques and graphics. Through qualitative and quantitative methodologies, we concluded that verbs are the major modality agent in BP and epistemic modality is the most frequent type found. We also observed that BP allows for multiple modal valency utterances and tone units. The preliminary study on adverbs of certainty in a sample of BP and EP showed an upward curve representing an increased use of modal adverbs in lower diastraty in BP if

compared to higher ones, which may indicate socioculturally based differences in the expression of politeness in the two groups. The comparison between EP and BP indicated differences in lexical choices; however due to the make up of the EP sample, doubts remain as to the degree of variability found in this national variety. We, furthermore, were able to appreciate the relevance of modal adverbs in BP spontaneous speech and their complex usage patterns. The bare modal semantic meaning of adverbials is associated with other notions such as temporality. Decisions as to the indexes semantic value are dependent on context, co-text and prosody. Finally, in the expression of modality, there is a strong interface between semantics and pragmatics which we address in face of participants' roles in speech events and their stance. To sum up, our research on modality in a corpus of spontaneous speech aims at reaching a more unified comprehension about this complex category.

## References

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