



An analysis of prosodic information for the recognition of dialogue acts in a multimodal corpus in Mexican Spanish

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Abstract

This paper presents empirical results of an analysis on the role of prosody in the recognition of dialogue acts and utterance mood in a practical dialogue corpus in Mexican Spanish. The work is configured as a series of machine-learning experimental conditions in which models are created by using intonational and other data as predictors and dialogue act tagging data as targets. We show that utterance mood can be predicted from intonational information, and that this mood information can then be used to recognize the dialogue act.

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1. Introduction

Spoken language processing in artificial intelligence (AI) presents a large number of research challenges in the first decade of the 21st century. Some of the most demanding are the robustness improvement in automatic speech recognition (ASR) systems and the exploitation of diverse information sources that speakers use when participating in a dialogue.

Since one of the goals of AI is to implement efficient applications to process natural language, this area takes into account knowledge from diverse sciences that study the linguistic phenomena; some of them are linguistics, philosophy of language, psycholinguistics and phonetics.

One of most relevant contributions in philosophy of language is Searle's notion that the minimal unit for linguistic communication is the speech act instead of the symbol, the word or the phoneme. This idea introduced a new approach in the linguistic studies. Linguistics, in turn, suggests that one of the means to express

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