

Accepted Manuscript

The Role of Prosody and Voice Quality in Indirect Storytelling
Speech: Annotation Methodology and Expressive Categories

Raúl Montaña, Francesc Alías

PII: S0167-6393(15)30010-8
DOI: [10.1016/j.specom.2016.10.006](https://doi.org/10.1016/j.specom.2016.10.006)
Reference: SPECOM 2409

To appear in: *Speech Communication*

Received date: 2 September 2015
Revised date: 10 October 2016
Accepted date: 11 October 2016

Please cite this article as: Raúl Montaña, Francesc Alías, The Role of Prosody and Voice Quality in Indirect Storytelling Speech: Annotation Methodology and Expressive Categories, *Speech Communication* (2016), doi: [10.1016/j.specom.2016.10.006](https://doi.org/10.1016/j.specom.2016.10.006)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



The Role of Prosody and Voice Quality in Indirect Storytelling Speech: Annotation Methodology and Expressive Categories

Raúl Montañó, Francesc Alías*

*GTM - Grup de Recerca en Tecnologies Mèdia, La Salle - Universitat Ramon Llull,
Quatre Camins, 30, 08022 Barcelona, Spain*

Abstract

Storytelling speech entails a particular speaking style that contains subtle expressive nuances represented by specific acoustic cues. In the literature, different pieces of research have addressed its analysis following diverse approaches, some of them studying these subtleties by attending only to prosodic variations. In this work, we propose an analysis methodology to annotate this particular speaking style at the sentence level based on storytelling discourse modes (narrative, descriptive and dialogue), besides introducing narrative sub-modes denoted as expressive categories. Following this annotation methodology, we analyse the role of both prosody and voice quality in indirect storytelling speech through statistical and discriminant analyses. The results obtained on the oral interpretation in Spanish of a tale show the viability of the annotation methodology, since most of the sentence-level utterances are successfully classified after several inter-annotator agreement verifications. Moreover, the outcome of the statistical and discriminant analyses prove that voice quality is as important as prosody to characterize storytelling expressive categories. Finally, we also show evidences that such categories can be conveyed with subtle expressive variability.

Keywords: Storytelling, indirect speech, speech analysis, prosody, voice quality, expressive categories

1. Introduction

The affective communication channel in human-computer interaction has been a topic of interest for both the speech recognition and speech synthesis research communities. Analysing the expressiveness present in affective speech has been of great interest for both domains of research and it is still a field under investigation. During the last decades, expressive speech has been explored in myriad studies devoted to speech analysis. Although the main focus of initial works had been placed on prototypic expressions of basic emotions (see Schröder, 2004, and references therein), the interest of the research community has moved

*Corresponding author tel.:(+34)932902440

Email addresses: raulma@salleur1.edu (Raúl Montañó), falias@salleur1.edu (Francesc Alías)

Download English Version:

<https://daneshyari.com/en/article/4977857>

Download Persian Version:

<https://daneshyari.com/article/4977857>

[Daneshyari.com](https://daneshyari.com)