The PAVOQUE corpus as a resource for analysis and synthesis of expressive speech

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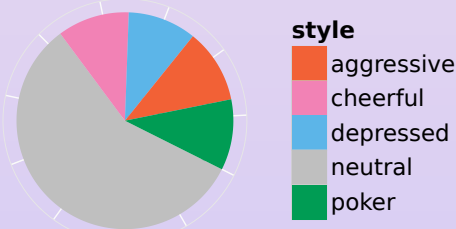[3]German Research Center for
Artificial Intelligence

Overview

We announce the release of the PAVOQUE corpus, a single-speaker, multi-style database of German speech, designed for analysis and synthesis of expressive speech. The corpus has been previously used for voice conversion [5] and expressive text-to-speech synthesis [1, 4].

The *full* corpus data is now being made available to the public, under a Creative Commons license. It is hosted at

    https://github.com/marytts/pavoque-data

Speaker and recordings

src: www.stefan-roettig.de

Stefan Röttig, a male native speaker of German trained as a professional actor and baritone opera singer, was hired to produce the corpus.

The recordings were carried out in a sound-proof studio, over multiple sessions, with a sampling rate of 44.1 kHz at 24 bit per sample.

All utterances were automatically transcribed using MaryTTS [3]; the phone-level segmentation was manually verified by phonetically trained research assistants.

Corpus composition

style
- aggressive
- cheerful
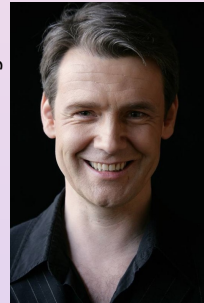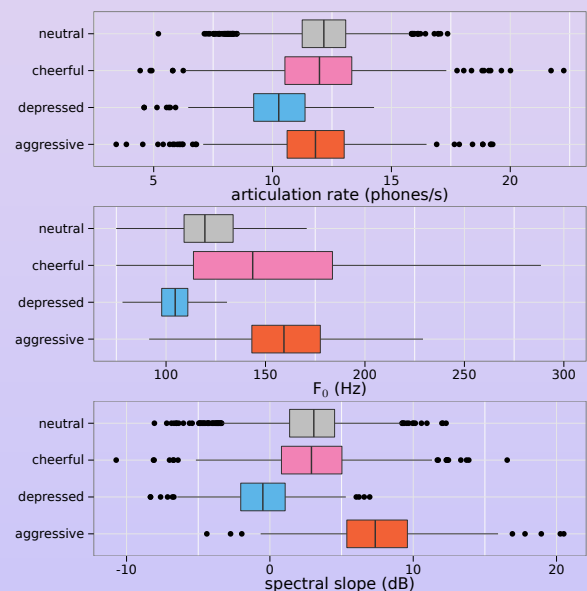- depressed
- neutral
- poker

The bulk of the corpus consists of general-domain sentences (A) automatically extracted from Wikipedia using a greedy algorithm optimizing for phonetic and prosodic coverage [2]; these were spoken in a neutral, "news-reading" style. 375 more of these (B) are common to all styles. A number of domain-specific utterances (C) were spoken as well.

set	neutral	cheerful	depressed	aggressive	poker
A	2639	25	25	25	25
B	375	375	375	375	375
C	112	184	156	201	175
total	3126	584	556	601	575
time	321 min	46 min	55 min	45 min	49 min

Overall, 5442 utterances (8 h 37 min) are available in five different speaking styles.

Selected statistics

References

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[4] I. Steiner, M. Schröder, M. Charfuelan, and A. Klepp. "Symbolic vs. acoustics-based style control for expressive unit selection". In: *7th ISCA Tutorial and Research Workshop on Speech Synthesis (SSW)*. Kyoto, Japan, 2010, pp. 114–119.

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