Connected speech

Connected speech, or connected discourse, in linguistics, is a continuous sequence of sounds forming utterances or conversations in spoken language. Analysis of connected speech shows sound changes affecting linguistic units traditionally described as phrases, words, lexemes, morphemes, syllables, phonemes or phones.

The words that are modified by those rules will sound differently in connected speech than in citation form (canonical form or isolation form).

Analysis of connected speech in the field of adult neurogenic communication disorders is essential for research and clinical purposes, yet time and expertise are often cited as limiting factors.

The purpose of a project of Fromm et al. was to create and evaluate an automated program to score and compute the measures from the Quantitative Production Analysis (QPA), an objective and systematic approach for measuring morphological and structural features of connected speech.

The QPA was used to analyze transcripts of Cinderella stories from 109 individuals with acute-subacute left hemisphere stroke. Regression slopes and residuals were used to compare the results of manual scoring and automated scoring using the newly developed C-QPA command in CLAN, a set of programs for automatic analysis of language samples. Results The C-QPA command produced two spreadsheet outputs: an analysis spreadsheet with scores for each utterance in the language sample, and a summary spreadsheet with 18 score totals from the analysis spreadsheet and an additional 15 measures derived from those totals. Linear regression analysis revealed that 32 of the 33 measures had good agreement; auxiliary complexity index was the one score that did not have good agreement.

The C-QPA command can be used to perform automated analyses of language transcription, saving time and training and providing reliable and valid quantification of connected speech. Transcribing in CHAT, the CLAN editor, also streamlined the process of transcript preparation for QPA and allowed for precise linking of media files to language transcripts for temporal analyses [1].

[1)]
Fromm D, Katta S, Paccione M, Hecht S, Greenhouse J, MacWhinney B, Schnur TT. A Comparison of Manual Versus Automated Quantitative Production Analysis of Connected Speech. J Speech Lang Hear Res. 2021 Mar 30:1-12. doi: 10.1044/2020_JSLHR-20-00561. Epub ahead of print. PMID: 33784197.