

The Influence of Background Music on Perceived Speaker's Age

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When stimuli for phonetic experiments are chosen, background noises are usually minimized in favor of clear audio signals, which can more easily be compared against one another. However, research has so far largely neglected the question of whether subjects take background noises into account when interpreting audio stimuli. In this experiment, utterances in Swiss German drawn from the Dialäkt Äpp Corpus were combined with recordings of both classical and pop music.

Ninety subjects were asked in an online survey to estimate the age of a speaker in an audio stimulus. Subjects were able to complete the survey in about one minute, resulting in a high rate of return. In the analysis, the estimates that subjects made of speakers' ages while music played in the background were compared to those that other subjects made when the same stimuli were played without music or other sounds. The aim was to determine how background music affects the estimate itself, not the accuracy of that estimate. Furthermore, the actual age of the speakers, who submitted their data online via an app, was self-reported. This resulted in uncertainty as to whether the reported ages were the actual ages of the speakers.

It was found that pop music being played in the background led to subjects producing lower estimates of speaker' ages. The difference in estimates relative to the condition without music varied from 1 to 3.5 years. The effect was more pronounced when the age of the speaker was higher. However, the extent of this effect was significantly larger for some stimuli than others. In some cases, pop music did not have any significant influence. Classical music had no significant influence on age prediction across all stimuli.