

The Influence of Musical Genre and Training on Verbal Fluency: A Comparison Between Jazz, Classical, and Non-Musicians. Research Preparations.

Can music influence language skills, and does musical training affect these abilities? Exposure to music activates distinct brain regions that are often involved not only in auditory processing but also in various intellectual functions. Previous studies have demonstrated that music can positively impact language competencies; however, there is limited understanding of which specific musical properties exert this effect. Additionally, research indicates that musical training can alter the functional organization of the brain, allowing trained individuals to perform better on language tasks. Nevertheless, there remains a gap in the comparison between musicians from different genres.

Building upon insights from my bachelor's thesis, which explored the influence of the musical genre – classical and jazz – on verbal fluency, I aim to further investigate the relationship between music, musical expertise, and language. My previous study indicated that jazz music enhanced performance on phonological verbal fluency tasks, while classical music improved performance on semantic verbal fluency tasks. Since the prior study was conducted with non-musicians, the current study focuses on comparing musicians from two different genres (jazz and classical) with non-musicians.

During this semester, I have been preparing the previous study for publication, which has provided valuable insights and new interpretations of the findings that are critical for my ongoing research. It emphasized the importance of carefully selecting study participants with comparable language proficiency levels. Furthermore, it highlighted the need to conduct a pilot study in which participants perform verbal fluency tasks without exposure to music, in order to compare results with those obtained after music exposure and determine whether the observed effects are a result of listening to music. The importance of considering participants' mood was also noted, and a tool for assessing mood will be employed.

In addition, I met with a professor of Musicology and musicology students to discuss my study, which underscored the necessity of selecting appropriate musical stimuli for both jazz and classical music. To ensure the stimuli accurately represent their respective genres, machine learning techniques will be applied, followed by expert opinion to refine the selection. This presentation will outline the research preparations, methodology design, and directions for future work.