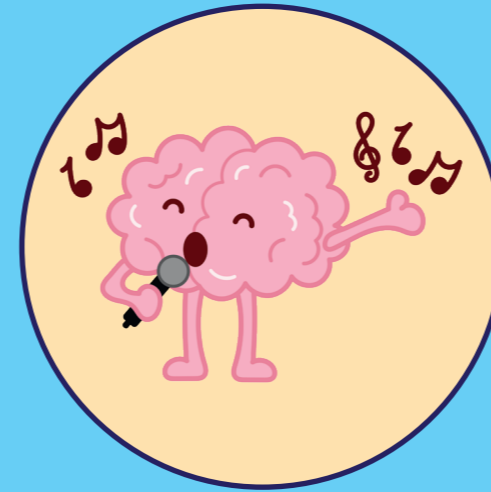


# SINGING AND SPEAKING

## What are the benefits of singing on speech production?



### Context

Speech production changes with age. As we age, voice stability, intensity and articulatory accuracy decrease, while speech duration and variability increase. In this study, which is part of our PICCOLO project, we were interested in the potential effect of singing on speech production. Since singing relies upon some of the same processes as speaking, it is possible that singing could have beneficial effects on speech and voice production, and thus reduce the effects of aging. This is known as a "transfer effect".

### Comparison of 2 Groups of Activities

**38**

**Singing**

**40**

**Non musical activities**

People practicing :  
golf, billiards, knitting,  
yoga, pétanque,  
curling, video games,  
bowling, tai chi

### What was measured

**Voice quality**

Measured by vocal quality and stability when producing the vowel /a/ at a comfortable intensity.

**Maximum phonation**

Measured by the ability to hold the vowel /a/ at a comfortable intensity for as long as possible.

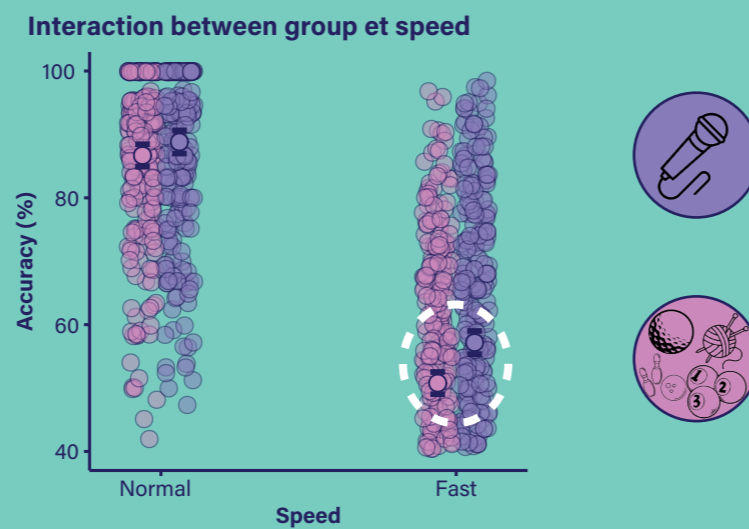
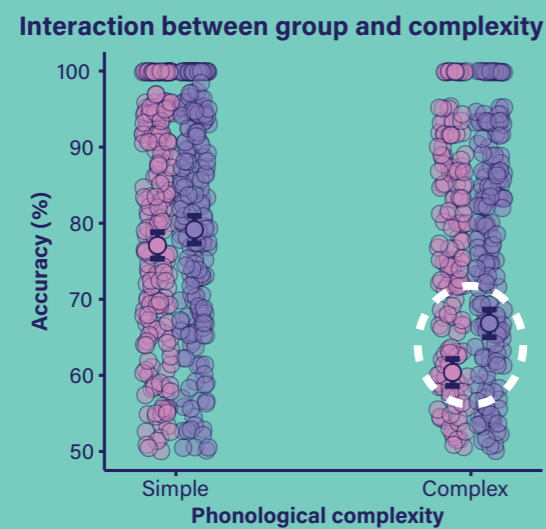
**Speech rate**

Measured by the reading speed of a neutral text.

**Articulatory quality**

Measured as accuracy during the repetition of simple and complex words and non-words at normal and maximal speed.

### The Relationship between Singing and Articulatory Performance



Articulatory quality is the only measure that benefits from singing practice. Singers exhibited a more precise articulation for complex words and nonwords compared to non-singers. In addition, singers maintained better articulation quality than non-singers when producing words and nonwords at maximal speed.

### To Summarize

The practice of singing appears to have positive effects on certain components of speech production, particularly in challenging situations, suggesting extended maximal performance capacities. It remains to be determined whether other benefits exist, and whether individual characteristics such as gender and age modulate these benefits.

