

Musical training, bilingualism and executive functions



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Introduction to CS

- Bilingualism



- Task-switching

- Musical training



- Dual-task performance

PARTICIPANTS

- Monolingual musicians ($n = 45$)
- Monolingual non-musicians ($n = 36$)
- Bilingual musicians ($n = 36$)
- Bilingual non-musicians ($n = 36$)



METHODS

- Quantity/Identity Task
 - Block 1 (quantity): how many numbers
 - Block 2 (identity): values of numbers
 - Block 3 (quantity & identity): switching between block ½
- Krantz paradigm
- n-back task – Brain Workshop
 - https://www.youtube.com/watch?v=IA_WsNdhCc4



RESULTS

Long-term musical training



Task-switching ability
& dual-task performance

Monolinguals



Bilinguals

Thank you for your attention 😊



Reference:

Moradzadeh, L., Blumenthal, G., & Wiseheart, M. (2014). Musical Training, Bilingualism, and Executive Function: A Closer Look at Task Switching and Dual-Task Performance. *Cognitive science*.