



**Musical training changes sound processing in the brain**



**Music**



**Language & Reading**

**How does music have a generalized effect on auditory processing?**

## Musicians perform better on cognitively-based listening tasks

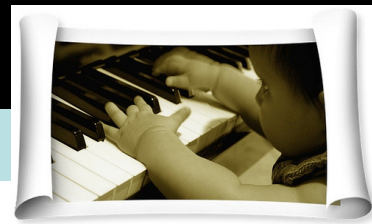
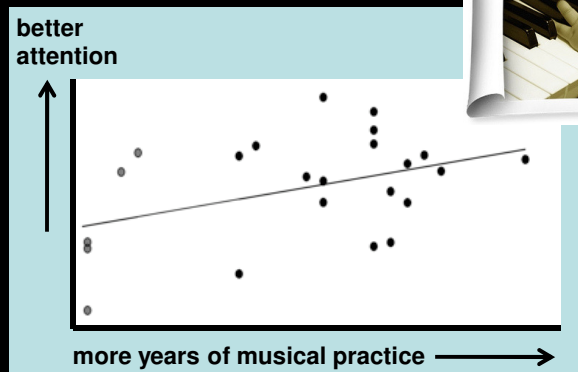


→ Auditory attention

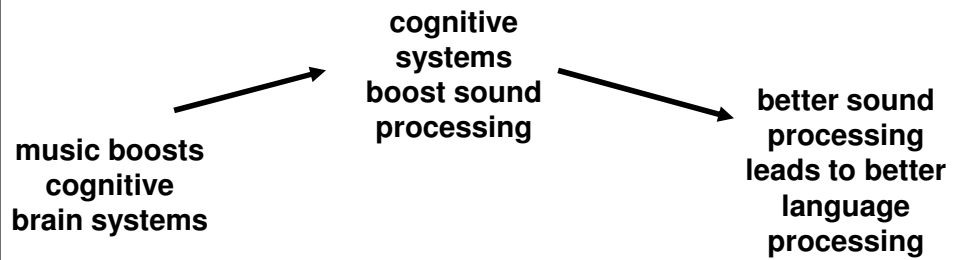
→ Auditory memory

No musician advantage for detecting simple tones, hearing thresholds or visual attention tasks

## The longer you practice, the stronger your cognitive auditory abilities



## Implications for language and reading disorders



**Auditory Neuroscience  
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**Music Cognition  
Laboratory**

Richard Ashley, D.M.A.



**NSF Science of Learning Centers Program**