



AWE-some: How Music Can Make Us Well

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Music isn't music
until your brain
makes it so.

4'33"

for any instrument or combination of instruments

John Cage

I

60 ♩ = $\longleftrightarrow$
4/4

3

5

7

9

33"

II

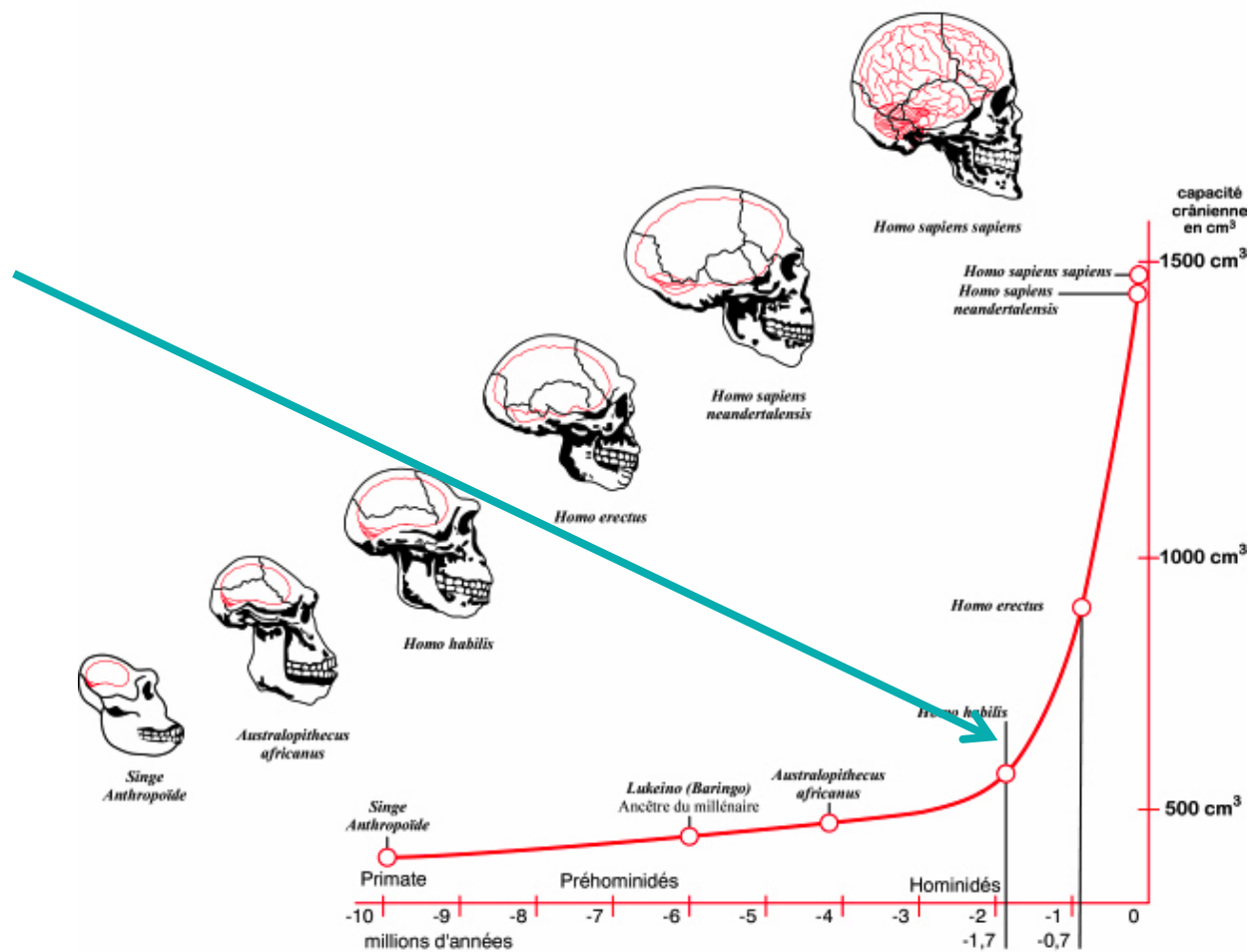
60 ♩ = $\longleftrightarrow$
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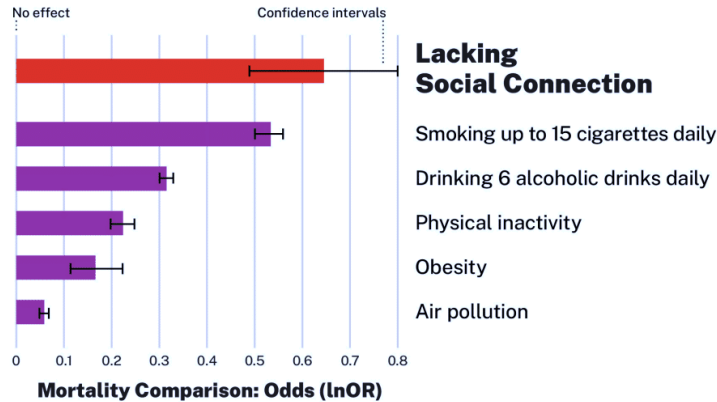






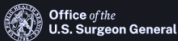


Lacking social connection is as dangerous as smoking up to 15 cigarettes a day.



Comparison groups: Complex measures of social integration: high v. low; not smoking v. smoking < 15 cigarettes daily; alcohol abstinence v. drinking > 6 alcoholic drinks daily; physical activity v. inactivity; low BMI v. high BMI; low air pollution v. high air pollution.

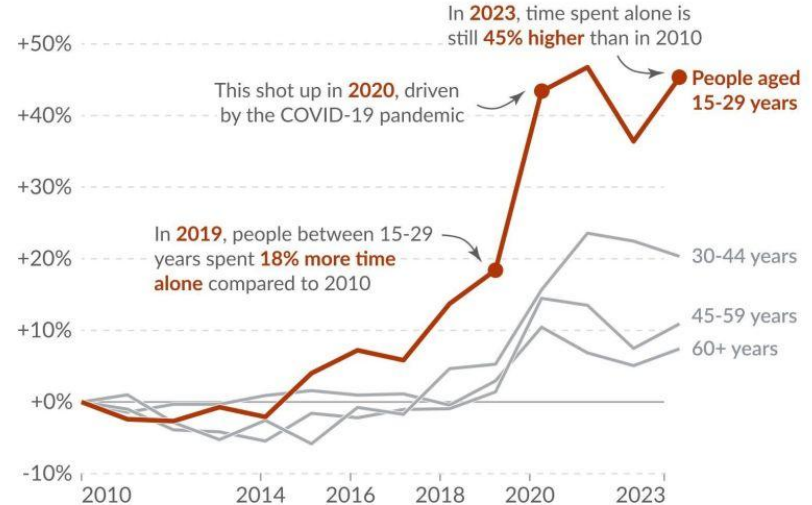
Source: Holt-Lunstad J, Robles TF, Sbarra DA. Advancing Social Connection as a Public Health Priority in the United States. *American Psychology*. 2017;72(6):517-530. doi:10.1037/amp000103. This graph is a visual approximation.



Young Americans are spending much more time alone



Relative change in average survey responses compared to 2010. Time spent alone means no one else was physically present and can still include phone or video calls.



Note: Activities such as sleeping, grooming, and personal care are not included in the data. Data for 2020 excludes the period March 18 to May 9 ("lockdown").

Data source: U.S. Bureau of Labor Statistics (2023)

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2024 Dainu Šventė Study Design



1. Wellbeing, Awe and Social Connection Surveys:

- ~1300 Before the Festival
- ~1500 During the Festival
- ~2000 After the Festival
- Aged 11-89



2. Physiological Measure: Heart Rate Tracking

- ~35 performers
- ~35 viewers



Core Features of Awe:

Vastness - Encountering something that transcends ordinary experience in size, scope, complexity, or significance

Need for accommodation - A cognitive challenge where existing mental frameworks must expand to process the experience

Diminished sense of self - Feeling small or insignificant in relation to something greater

Sense of connection - Feeling more connected to others, nature, or the universe

Time distortion - Perception that time has slowed down or expanded

Physical sensations - Often includes goosebumps, shivers, or a feeling of being moved

Transcendence - A sense of going beyond ordinary experience or consciousness



Music that Induces Chills

- **Sudden dynamic shifts** - especially unexpected increases in volume
- **Unexpected harmonic changes**
- **Entry of new voices/instruments** - especially if they enter at higher pitch ranges
- **Melodic appoggiatura** momentary creation of dissonance before resolution
- **Expanded frequency range** - when music suddenly extends into significantly higher or lower frequencies than previously established

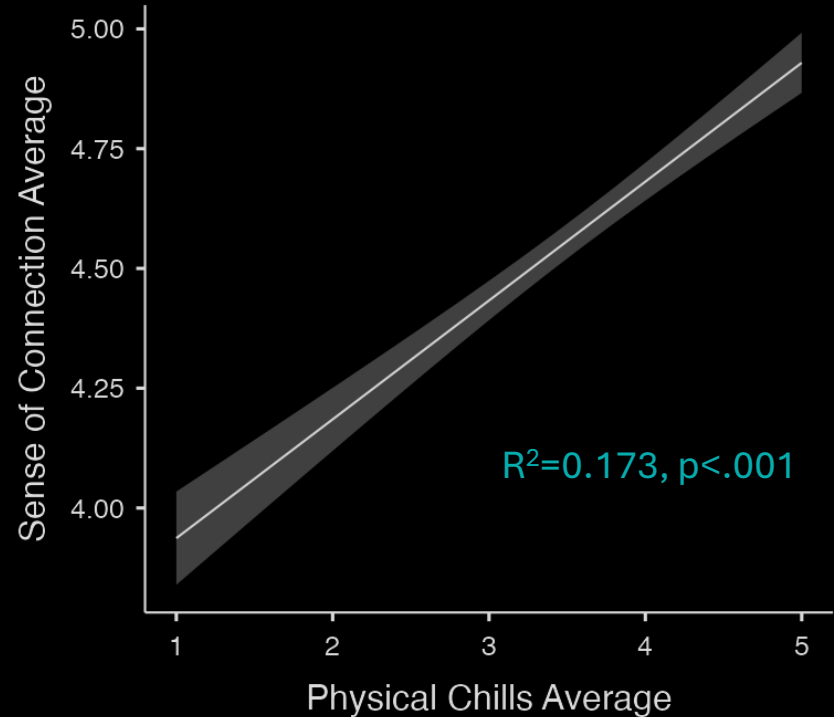


Is getting the 'chills' from music limited to 'special' brains?

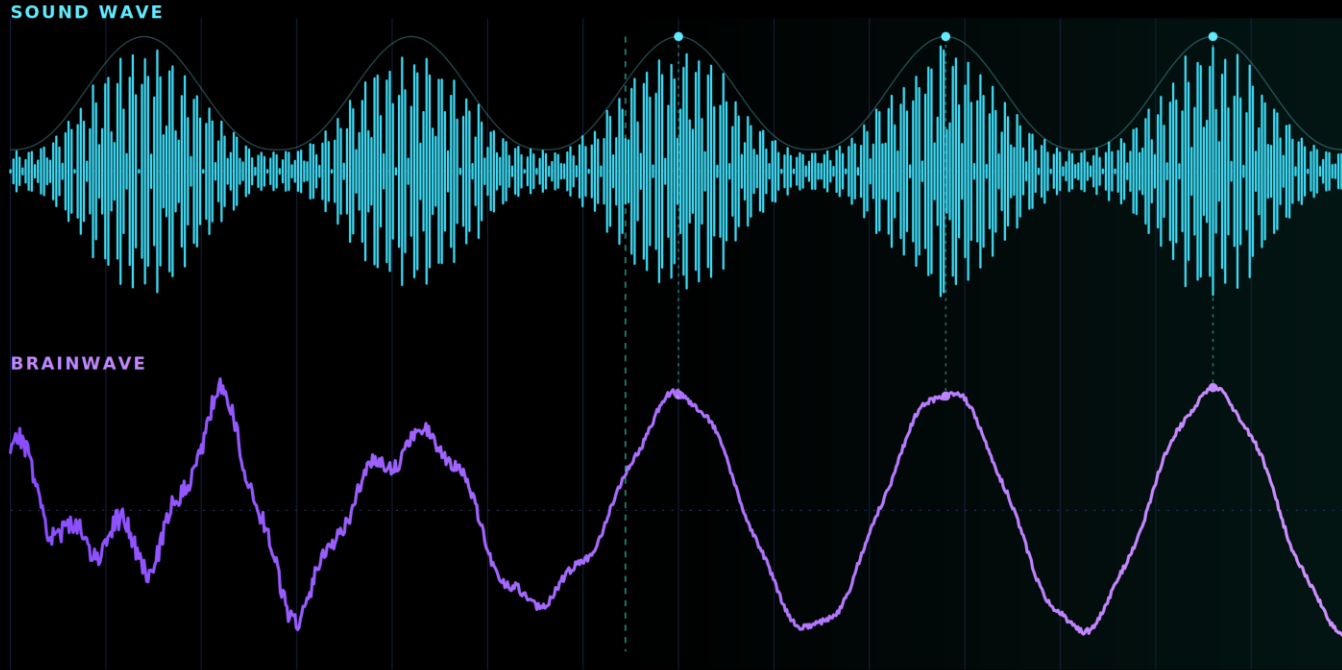


95% of our respondents reported experiencing some 'chills', with most feeling them very strongly.

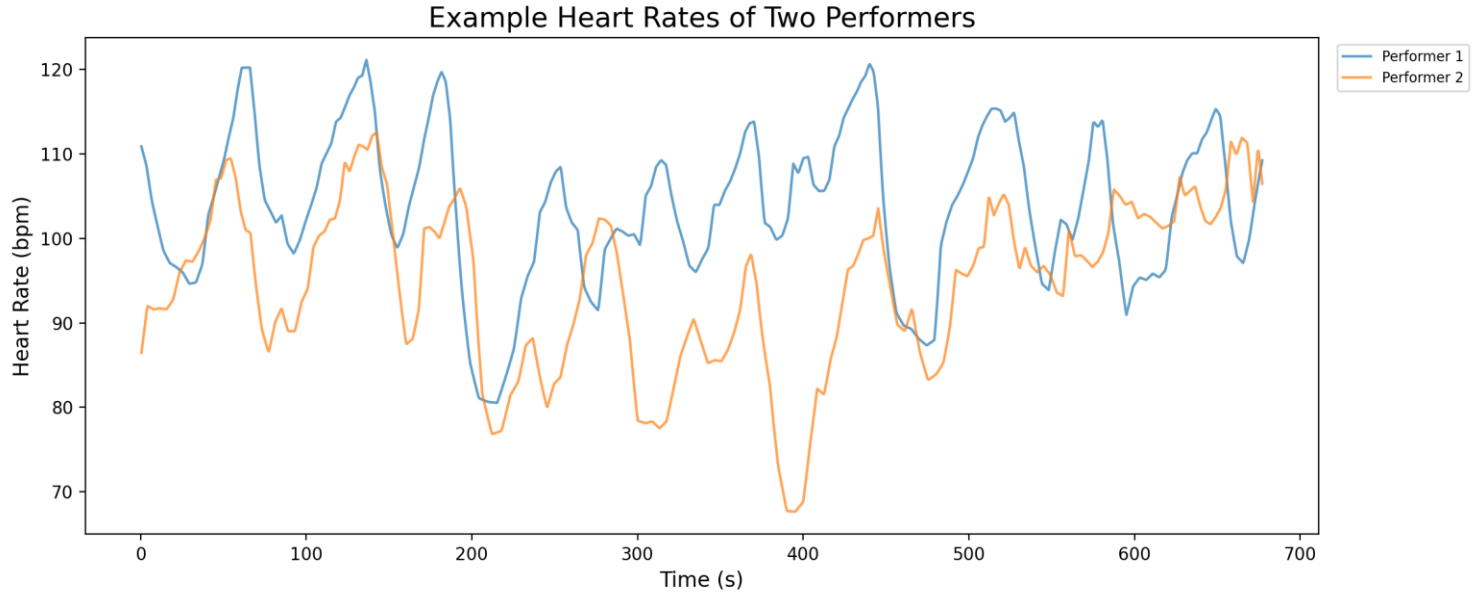
Feeling the ‘chills’ is related to feeling connected.

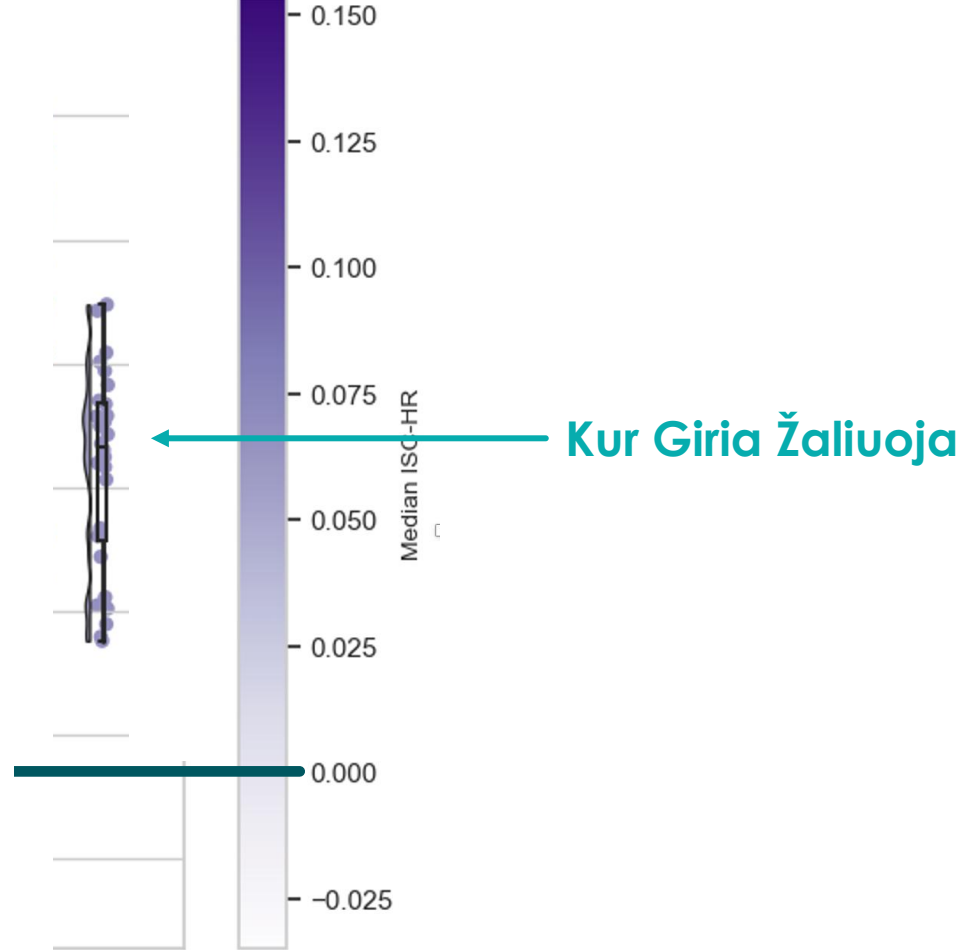


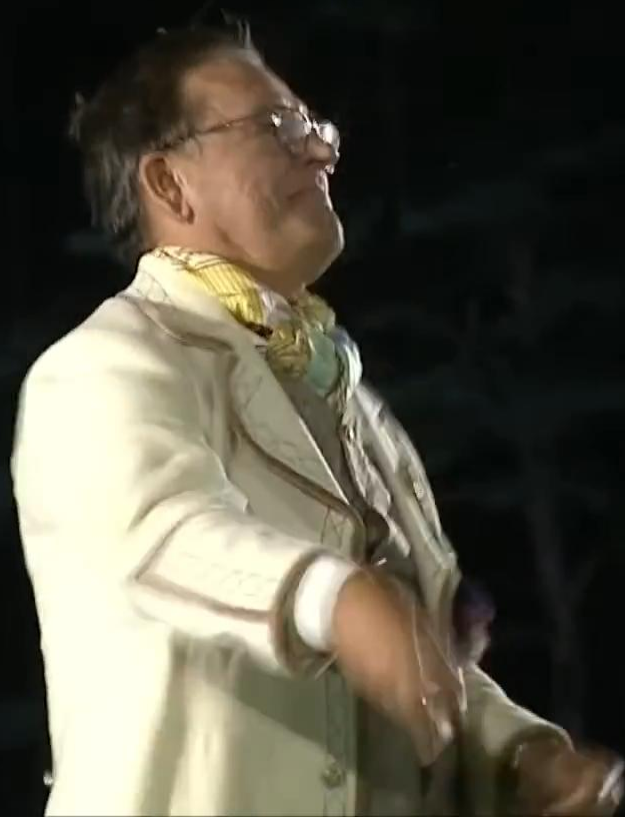
Music Synchronizes Brain and Body Rhythms



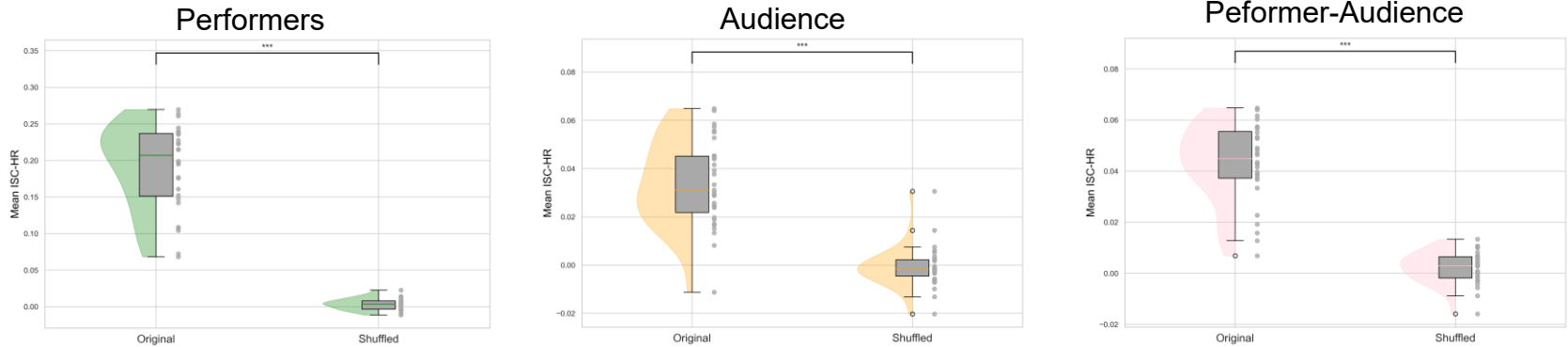
Tracking Heart Rate Synchrony







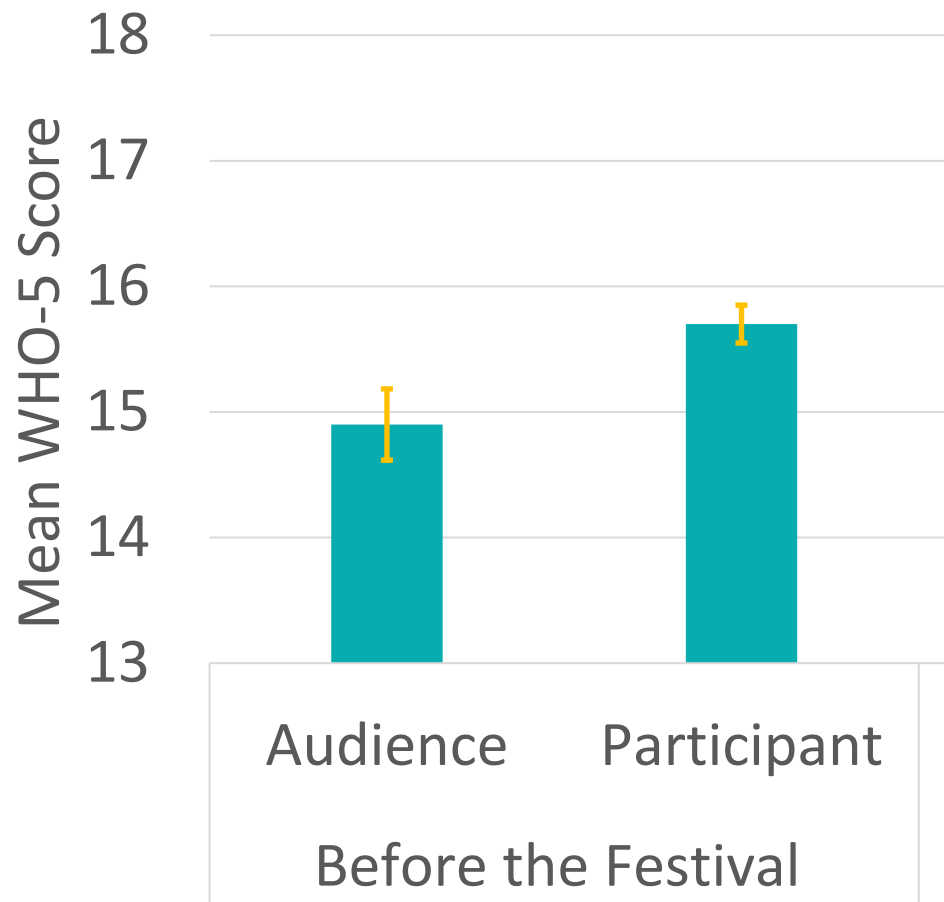
Synchronized Heart Rhythms During the Song Festival



Control condition = time misaligned HR signals (expected HR synchrony from two heart rate signals)

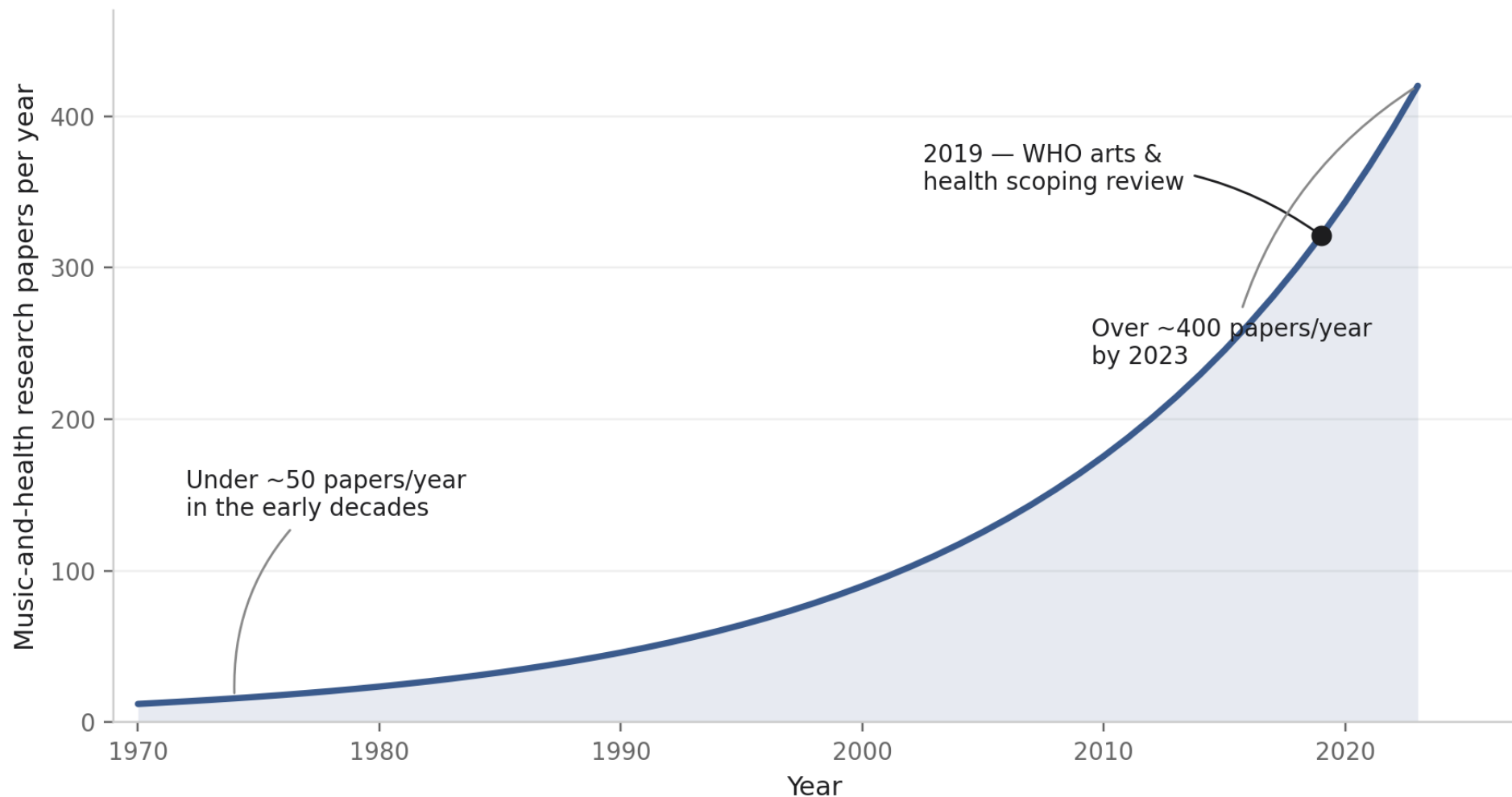
Ivana Konvalinka & Hanlu He

Wellbeing Improved For Participants



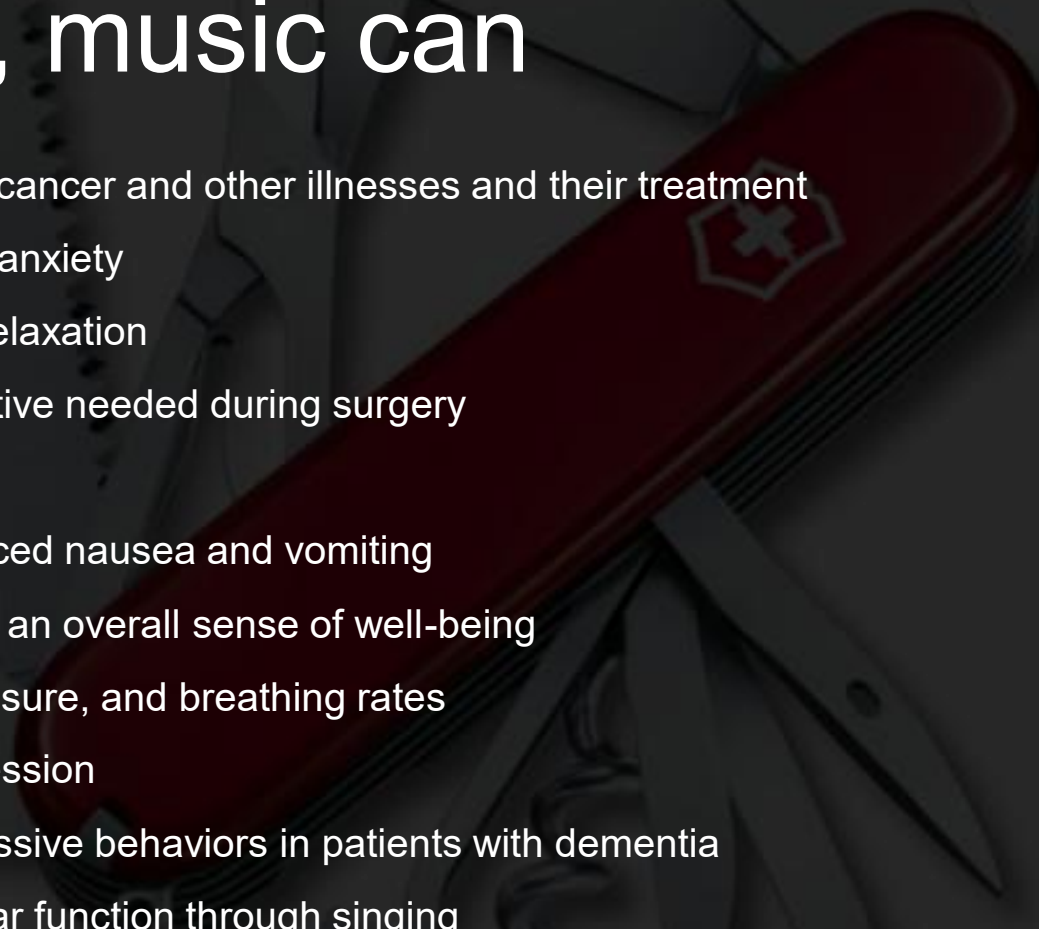


The rise of research on music and health



In Medicine, music can

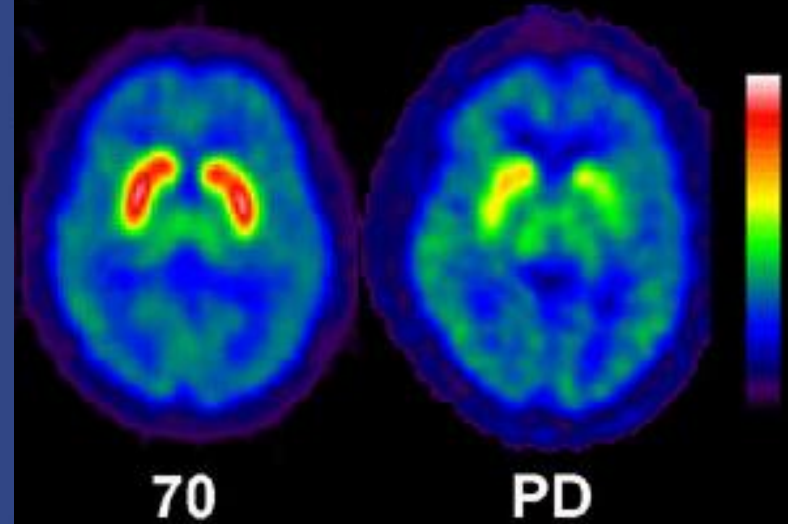
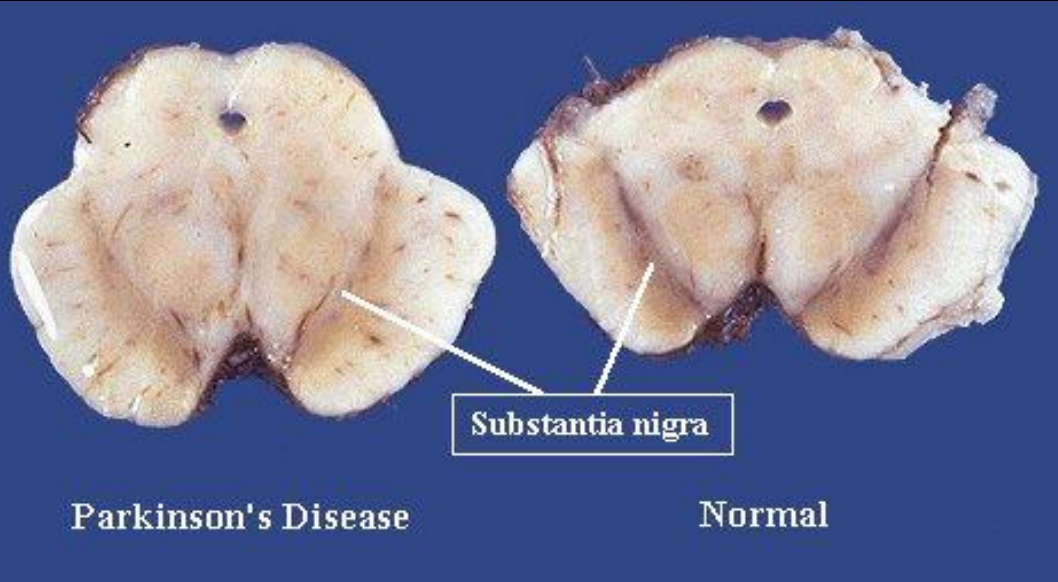
- Reduce side effects of both cancer and other illnesses and their treatment
- Cut illness-related pain and anxiety
- Improve mood and induce relaxation
- Reduce the amount of sedative needed during surgery
- Improve surgical outcomes
- Relieve chemotherapy-induced nausea and vomiting
- Reduce stress and increase an overall sense of well-being
- Lower heart rate, blood pressure, and breathing rates
- Reduce insomnia and depression
- Reduce agitation and aggressive behaviors in patients with dementia
- Improve acute cardiovascular function through singing







Parkinson's Disease



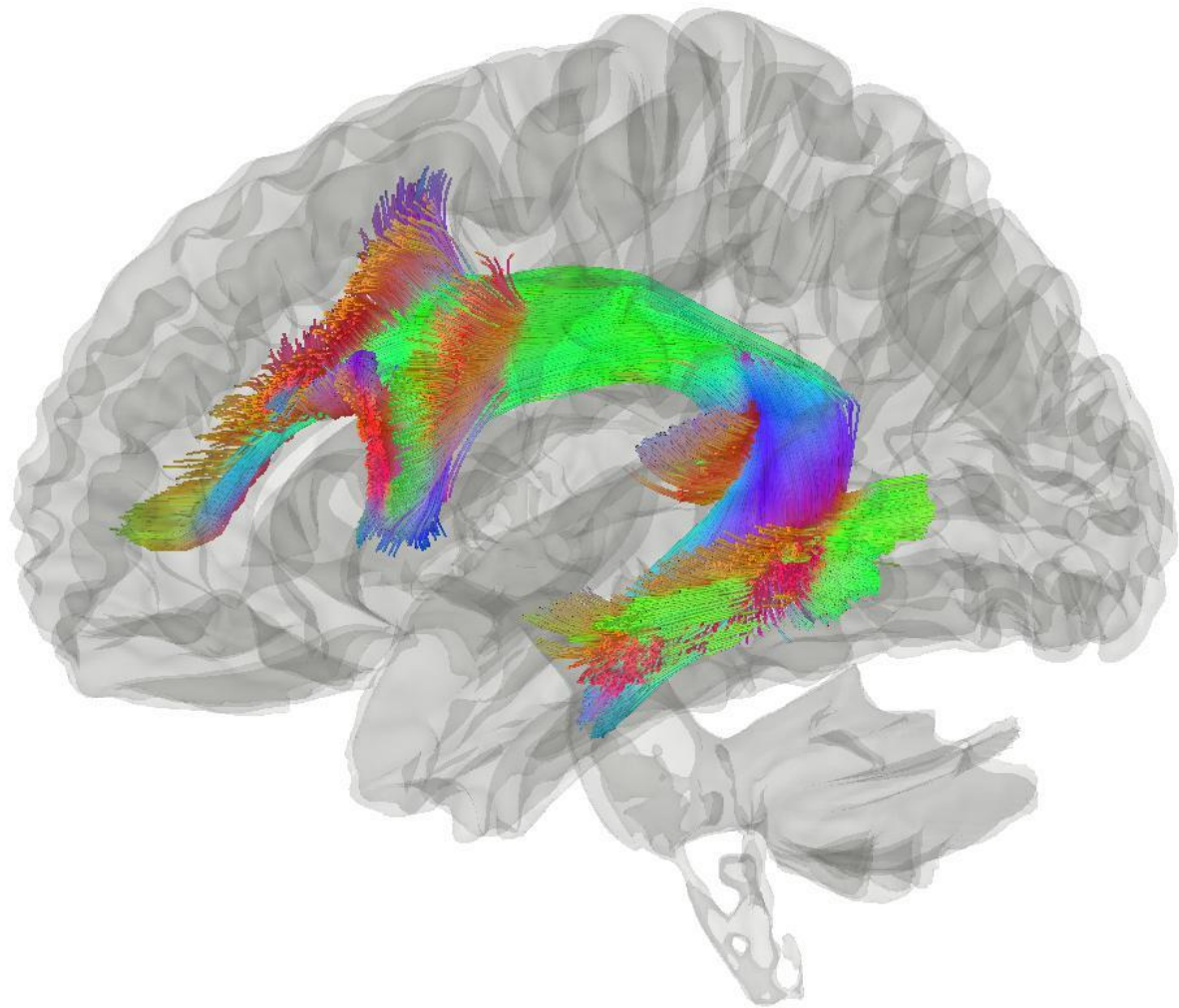
Dopamine levels

**We don't see the rhythm:
we feel the beat.**





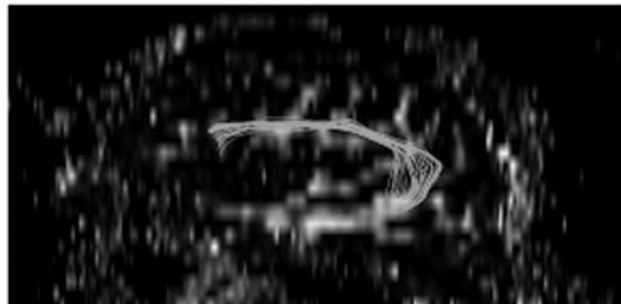






PBS
NEWS
HOUR
#PBSNEWS

AF; Pretreatment 1



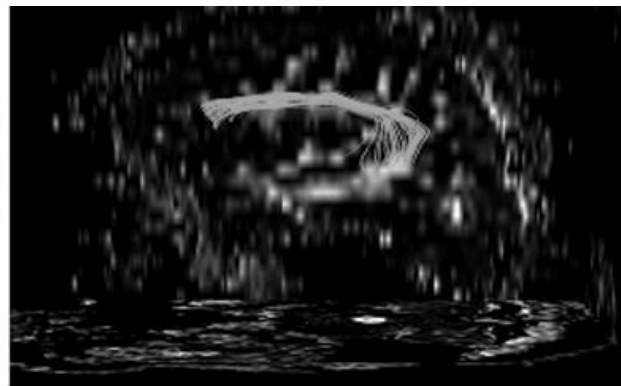
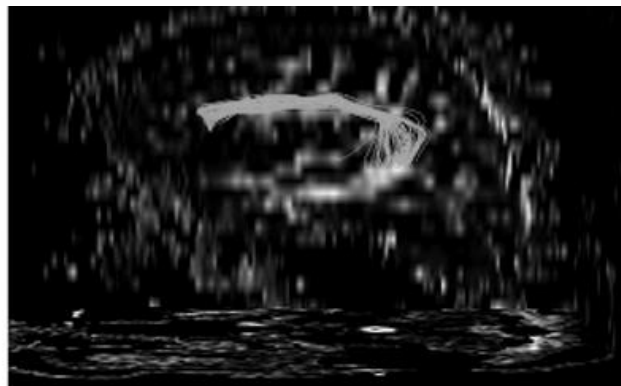
AF; Pretreatment 2



Published in Annals of the New York Academy of Sciences 2009

Evidence for plasticity in white-matter tracts of patients with chronic Broca's aphasia undergoing intense intonation-based speech therapy.

Gottfried Schlaug, Sarah Marchina, Andrea C. Norton





PMHU envisions a world where music is utilized as a fully integrated tool for restoring dignity and humanity within isolated spaces.







Thank you.

www.indreviskontas.com

