

# Fundamental Research Newsletter

PROJECT #165 – MUSIC COGNITION

PERFI8TH INC.



18 December 2023



## Here's what has happened in the last month and what's to come!

Welcome to our research newsletter! We are excited to share the latest developments in our fundamental research on Music Cognition, a project dedicated to exploring how music is perceived, learned, and performed.

Firstly, we would like to thank our community of researchers, creative collaborators, and supporters who have continued to empower this inquiry. Your engagement fuels the discoveries we are making in understanding how the human brain interacts with music in multi-sensory ways.

This month, we've been focusing on music perception—analyzing how auditory stimuli and mental imagery guide listener expectations. Our team has been designing small-scale songwriting trials to study how composers use internal sensory cues to shape phrasing and structure.

Next month, we will expand our scope to examine music learning strategies, especially the role of kinesthetic memory and visual association in how musicians internalize melodic and harmonic material.

If you are a music educator, performer, or researcher, we'd love to hear from you or welcome you into a collaborative discussion. Together, we are redefining what it means to understand music not just as sound—but as experience. Stay tuned for more insights, and thank you for following our journey!

— The Research Team @  
PERFI8TH INC.

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In this newsletter  
you can expect:

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Perception  
Study Findings

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Upcoming  
Kinesthetic  
Learning  
Module

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Participant  
Reflections

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Volunteer  
Researcher  
Spotlight

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AKV Prototype  
Recap

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Neuroaesthetic  
Mapping  
Highlights

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## Research Community News

Welcome to this month's update from the PERFI8TH research community!

We're thrilled to report ongoing momentum in our Music Cognition project. Our team recently held a collaborative workshop focused on multimodal engagement in songwriting, featuring reflective sessions and data journaling practices. These moments are helping us refine our analytical framework on how perception and embodiment interact in real-time music creation.

We're also gearing up to share our findings in an upcoming Music & Cognition Symposium, where we'll explore how auditory expectation and imagery shape compositional thought.



### Researcher Spotlight

This month, we're spotlighting Dr. Mei, a visiting researcher from Boston who contributed to our phase on perceptual anticipation in musical phrasing.

Mrs. Murphy's background in songwriting and cognitive neuroscience helped bridge intuitive creativity and analytical insight. Her dual-lens perspective made a valuable impact on our observation protocol. When she's not coding data or facilitating reflection interviews, you'll find Lina playing jazz improvisations at open mics across the city.



### Upcoming Workshop – “Learning in Motion”

Join us for our April workshop focused on kinesthetic learning in music!

- Date: 12 October 2023
- Time: 10am-12pm
- Location: PERFI8TH Studio Lab  
Donations of non-perishable food items are greatly appreciated.
- Activities include movement-melody pairing, gesture notation, and personal strategy mapping.
- All collaborators and educators welcome!

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## Research Team Highlights



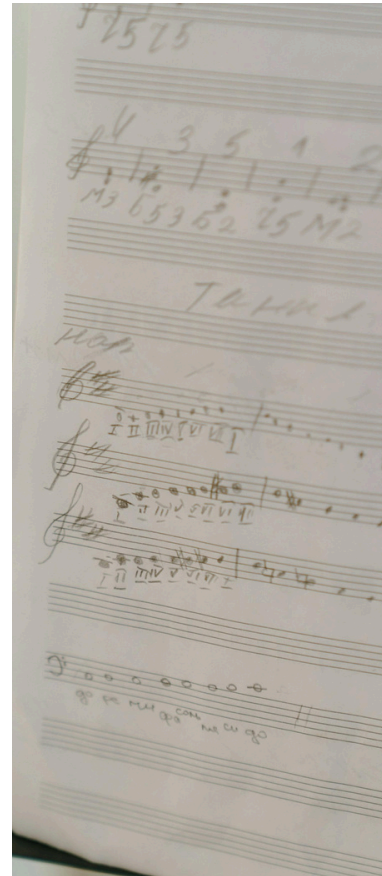
**Mr. Alex**

Music cognition fellow focusing on expectation modeling in melodic construction.



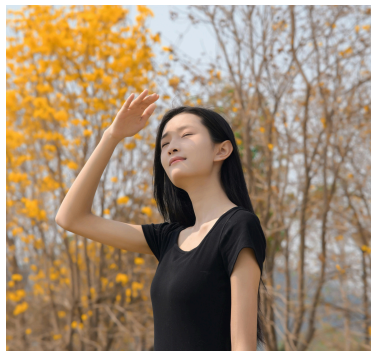
**Dr. Mei**

Leading exploration into neuro-symbolic mapping of song structures.



**Mrs. Murphy**

Specialist in multimodal music analysis and co-developer of our “gesture-to-tone” interface.



**Mrs. Sarah**

Oversaw participant reflection protocols, co-led journaling and image-association prompts.

## Project Notes & Reminders

- We are switching to a new journaling software next week — access will be provided by email.
  - Please back up your AKV session notes before April 15.
  - All team members are invited to submit prompts for the Performance Cognition Study, launching in May.
  - Feedback on imagery recall tasks is encouraged. Email us at [admin@perfi8th.com](mailto:admin@perfi8th.com)
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## Stories of Impact: From Lyric to Memory Trace

Meet Darius, a college student and musician who participated in our perception learning module.

Before joining our study, Darius described his songwriting as “spontaneous but scattered.” Through reflective prompts and movement-matching tasks, he discovered that his strongest ideas often followed a visual or gestural cue, not a chord progression. By identifying these “trigger points,” he began building lyrics with greater coherence and confidence.

Darius’ experience reminds us that learning to recognize internal imagery and embodied cues can transform how artists understand their own creative process. He now mentors younger students using a sensory-mapping method developed from our study.

His journey shows how basic research can directly support individual growth in music learning and expression.

*Thank you for reading!*

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