

Harin Lee

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EDUCATION

International Max Planck Research Schools Fellowship, Germany

Oct 2020 — Present PhD candidate, Max Planck Institute for Human Cognitive and Brain Sciences — Top Candidate
Dec 2020 — Present Visiting Researcher, Max Planck Institute for Empirical Aesthetics

Note: Gap between MSc and PhD is due to serving the compulsory Korean military duties for two years

Goldsmiths College, University of London, UK

Oct 2017 — Oct 2018 MSc Music, Mind and Brain — Distinction
Oct 2013 — Sep 2017 BMus Popular Music — First Class Honours

Richard Huish College, UK

Oct 2011 — Jul 2013 A-levels: Mathematics, Physics, Music Technology — A* A* A

Other TSE Summer School in Quantitative Social Sciences (2024), Diverse Intelligence Summer Institute Fellow (2022), Neuromatch Academy Summer School (2020)

PUBLICATIONS

†Joint First Authorship; *Joint Senior/Last Authorship

In Review & Preprints **Lee, H.**, Geert, E. V., Celen, E., Marjeh, R., Rijn, P. van, Park, M., & Jacoby, N. (2025). Visual and Auditory Aesthetic Preferences Across Cultures. Accepted in principle at *Proceedings of the Annual Meeting of the Cognitive Science Society (CogSci 2025)*. — Preprint <https://doi.org/10.48550/arXiv.2502.14439>

Celen, E., Rijn, P. van, **Lee, H.***, & Jacoby, N.* (2025). Are Expressions for Music Emotions the Same Across Cultures? Accepted in principle at *Proceedings of the Annual Meeting of the Cognitive Science Society (CogSci 2025)*. — Preprint <https://doi.org/10.48550/arXiv.2502.08744>

Lee, H., Jacoby, N., Hennequin, R.* & Moussallam, M.* (2024). Why cities vary in their cultural diversity. Accepted in principle at *Nature Communications*. — Preprint <https://doi.org/10.31234/osf.io/73kyf>

Lee, H.†, Anglada-Tort, M.†, Sobchuk, O., Rijn, P. van, Schönwiesner, M., Tchernichovski, O.*, Park, M.*, & Jacoby, N.* (2024). Rapid reshaping of cultural boundaries during war. In review at *Nature Communications*. — Preprint <https://doi.org/10.31234/osf.io/7b98u>

van Rijn, P., Sun, Y., **Lee, H.**, Marjeh, R., Sucholutsky, I., Lanzarini, F., André, E., Jacoby, N. Evaluating Language Proficiency in 35 languages across 35 countries. Preprint <https://doi.org/10.48550/arXiv.2302.01614>

Marjeh, R., Rijn, P. van, Sucholutsky, I., **Lee, H.**, Jacoby, N., & Griffiths, T. L. (2024). Characterizing the large-scale structure of grounded semantic networks. Preprint <https://doi.org/10.31234/osf.io/phte5>

- Ref. Journal Articles & Archival Conf. Proc Marjeh, R., van Rijn, P., Sucholutsky, I., **Lee, H.**, Griffiths, T. L., & Jacoby, N. (2024). A Rational Analysis of the Speech-to-Song Illusion. *Proceedings of the Annual Meeting of the Cognitive Science Society (CogSci 2024)*. <https://doi.org/10.48550/arXiv.2402.06992>
- Marjeh, R.[†], Harrison, P. M. C.[†], **Lee, H.**, Deligiannaki, F., Jacoby, N. (2024). Timbral effects on consonance disentangle psychoacoustic mechanisms and suggest perceptual origins for musical scales. *Nature Communications*, 15(1), 1482. <https://doi.org/10.1038/s41467-024-45812-z>
- Lee, H.**, Hennequin, H., & Moussallam, M. (2023). Understanding individual and collective diversity of cultural consumption through large-scale of music listening events. *Computational Humanities Research Conference (CHR 2023)*. — Best Paper Award. <https://ceur-ws.org/Vol-3558/paper3539.pdf>
- Anglada-Tort, M., **Lee, H.**, Krause, A. E., & North, A. C. (2023). Here comes the sun: Music features of popular songs reflect prevailing weather conditions. *Royal Society Open Science*, 10(5), 221443. <https://doi.org/10.1098/rsos.221443>
- van Rijn, P., Sun, Y., **Lee, H.**, Marjeh, R., Sucholutsky, I., Lanzarini, F., André, E., & Jacoby, N. (2023). Around the world in 60 words: A generative vocabulary test for online research. *Proceedings of the Annual Meeting of the Cognitive Science Society (CogSci 2023)*. <https://doi.org/10.1016/j.cub.2023.02.070>
- Anglada-Tort, M., Harrison, P. M. C., **Lee, H.**, & Jacoby, N. (2023). Large-scale iterated singing experiments reveal oral transmission mechanisms underlying music evolution. *Current Biology*, 0(0). <https://doi.org/10.1016/j.cub.2023.02.070>
- Marjeh, R.[†], Rijn, P. V.[†], Sucholutsky, I.[†], Summers, T., **Lee, H.**, Griffiths, T. L.^{*}, & Jacoby, N.^{*} (2023). Words are all you need? Language as an approximation for human similarity judgments. *International Conference on Learning Representations (ICLR 2023)*. <https://openreview.net/forum?id=O-G91-4cMdv>
- van Rijn, P.[†], **Lee, H.**[†], & Jacoby, N. (2022). Bridging the prosody GAP: Genetic Algorithm with People to efficiently sample emotional prosody. *Proceedings of the Annual Meeting of the Cognitive Science Society (CogSci 2022)*. <https://escholarship.org/uc/item/59q714w6>
- Lee, H.**, Hoeger, F., Schoenwiesner, M., Park, M., & Jacoby, N. (2021). Cross-cultural mood perception in pop songs and its alignment with mood detection algorithms. *International Society for Music Information Retrieval Conference (ISMIR 2021)*, 366–373. — Finalist for Best Paper Award. <https://doi.org/10.5281/zenodo.5625680>
- Lee, H.**, Launay, J., & Stewart, L. (2020). Signals through music and dance: Perceived social bonds and formidability on collective movement. *Acta Psychologica*, 208, 103093. <https://doi.org/10.1016/j.actpsy.2020.103093>
- Lee, H.**, & Müllensiefen, D. (2020). The Timbre Perception Test (TPT): A new interactive musical assessment tool to measure timbre perception ability. *Attention, Perception, and Psychophysics*, 82(7), 3658–3675. <https://doi.org/10.3758/s13414-020-02058-3>

PROFESSIONAL EXPERIENCES & ACTIVITIES

Research Intern **Deezer Research**, Paris, France
May 2023 — Nov 2023 *Self-led project on understanding diversity in music listening.*

Program Committee Chair in Music at the upcoming ISMIR 2025

External Reviewer Journals: *Scientific Reports*, *Transactions of the International Society of Music Information Retrieval (TISMIR)*, *Humanities and Social Sciences Communications*, *Psychology of Music*, *Music & Science*

Co-founder *aiar* collective, bridging neuroscience with music performance — www.aiarcollective.com

AWARDS & HONOURS

- 2024 **Best Student Presentation Award**, Cultural Evolution Society Conf. (CES)
- 2023 **Best Paper Award**, Computational Humanities Research Conf. (CHR)
- 2023 **Nomination for Young Researcher Award**, Intl. Conf. on Music Perception and Cognition (ICMPC)
- 2023 **Travel Grant**, Intl. Conf. on Music Perception and Cognition (ICMPC) — \$500
- 2022 **Scientific Research Fellow**, Diverse Intelligence Summer Institute (DISI) — \$3,000
- 2022 **Art Grant** — Interactive Music Performance Using EEG, Leipzig City Council — €9,500
- 2021 **Nomination for Best Student Paper**, Intl. Soc. of Music Information Retrieval (ISMIR)
- 2021 **Nomination for Best Student Paper**, Intl. Conf. on Music Perception and Cognition (ICMPC)
- 2017 **Academic Excellence Scholarship**, Goldsmiths College — £3,000
- 2016 **Joe Brown Memorial Scholarship**, Music Department, Goldsmiths College — £500

INVITED TALKS

- 2025 **Whitehead Lecture Series, Goldsmiths, University of London, UK**
Understanding music in the age of machine learning
- 2025 **Faculty of Music, University of Cambridge, UK**
Understanding music in the age of machine learning
- 2024 **Music Cognition Lab, Princeton University, US**
Global melody and rhythm reveal independent cultural clusters
- 2024 **Music Department, Durham University, UK**
Big data on music, implications and future outlooks
- 2024 **AI Robotics Group, KIST Korea Institute of Science and Technology, S. Korea**
Mechanisms of cultural spread and diversity through individual and population-level music patterns
- 2024 **Cognitive Ethnomusicology Special Interest Group, Bates College, US**
Global Pop: Studying the evolution of pop music across 51 countries since the 1950s
- 2023 **Evolution & Social Cognition Group, Ecole Normale Supérieure, France**
Understanding cultural diversity and spread through large-scale music listening behaviour
- 2022 **CompMusic Lab, Keio University, Japan**
Cross-cultural mood perception in pop songs and its alignment with algorithmic estimates
- 2022 **Max Planck Institute for Evolutionary Anthropology, Germany**
GlobalPOP: Studying the evolution of pop music across 51 countries since the 1950s
- 2022 **Deezer Research, France**
GlobalPOP: Investigating the historical trajectories of popular music around the world
- 2022 **Brain Awareness Week Leipzig, Germany**
Without a song or a dance what are we?: Origins of music and how our musical perception is shaped by culture

CONFERENCES

2025 *planned* **Oral** — International Conference on Music Perception and Cognition (ICMPC), Sao Paulo, Brazil
 2025 *planned* **Poster** — Cognitive Science Society Annual Meeting (CogSci), San Francisco, US
 2025 *planned* **Oral** — Explaining culture: an interdisciplinary approach, ENS, Paris, France
 2024 **Oral** — Cultural Evolution Society (CES), Durham, UK
 2024 **Oral** — International Association of Empirical Aesthetics (IAEA), Mallorca, Spain
 2023 **Oral** — Computational Humanities Research Conference (CHR), Paris, France
 2023 **Oral** — International Conference on Music Perception and Cognition (ICMPC), Tokyo, Japan
 2022 **Oral** — Cultural Evolution Society (CES), Aarhus, Denmark
 2022 **Oral** — Systematic Musicology (SysMus), Ghent, Belgium
 2022 **Oral & Poster** — Cognitive Science Society Annual Meeting (CogSci), Toronto, Canada
 2021 **Oral** — International Society for Music Information Retrieval Conference (ISMIR), Virtual
 2021 **Oral** — International Conference on Music Perception and Cognition (ICMPC), Virtual
 2020 **Poster** — Timbre 2020, Virtual
 2019 **Oral** — Conference on Interdisciplinary Musicology Embodiment Music, Graz, Austria
 2019 **Poster** — Forum IRCAM Annual Workshop, Paris, France

PRESS HIGHLIGHTS

2024 **New Scientist** — ‘Pythagoras was wrong about the maths behind pleasant music’
 2023 **BBC** — ‘Have your say: Does the weather influence the music you listen to?’
 2023 **PhysOrg** — ‘New research shows how cultural transmission shapes the evolution of music’

TEACHING

2024 **Department of Sociology, Seoul National University**
 A 2-hour class on computational social science provided to Master’s students
 2021 **Department of Life Science, Leipzig University**
 Seminar on deploying massive online experiments using PsyNet

SKILLS

Language & Software R, Python, Javascript, HTML, SQL, Google BigQuery, AWS, HPC Computing, Gephi, Max MSP

Development Author of **tptR** R package (<https://github.com/harin-git/tptR>)
 Psychoacoustic experiments run on R to determine interindividual differences in timbre perception

Contributed to **PsyNet** (www.psynet.dev)
 A platform for running large-scale online behavioural experiments enabling complex paradigms

Open Science I publish all my working analysis code and data on OSF (<https://osf.io/ecrhs>) and GitHub
 (<https://github.com/harin-git>)

RANDOM FACTS

I’ve played on the stage of Berghain (Berlin), where I live monitored the brain activities of producer ‘EgreEgore’ and fed this back into the mix to manipulate the soundscapes and the underlying tempo of the beat. I also released two electronic pop music albums, which are available on major platforms (‘Youth’ by Harin and ‘In Dreams’ by Computer Hope).