Dr Harin Lee

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POSITIONS

University of	Cambridge.	UK
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Oct 2025 — Junior Research Fellow at King's College on the topic of 'Rhythm'

Max Planck Institute for Human Cognitive and Brain Sciences (MPI CBS), Germany

Oct 2020 — Sep 2025 PhD in Cognitive Science. Thesis titled 'Global Music Culture' supervised by Dr Marc

Schönwiesner & Dr Nori Jacoby — Summa Cum Laude

International Max Planck Research Schools Fellowship (IMPRS NeuroCom), Germany

Oct 2020 - Sep 2025 Full-funding by the Max Planck Society on a competitive basis

Max Planck Institute for Empirical Aesthetics (MPIEA), Germany

Dec 2020 — Sep 2025 Visiting Researcher at the Computational Auditory Perception group led by Dr Nori Jacoby

EDUCATION

* 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

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

Ref. Journal Articles & Archival Conf. Proc

– 2025 **–**

Lee, H., Jacoby, N., Hennequin, R.*, & Moussallam, M.* (2025). Mechanisms of cultural diversity in urban populations. *Nature Communications*, 16(1), 5192.

https://doi.org/10.1038/s41467-025-60538-2

Lee, H., Çelen, E., Harrison, P. M. C., Anglada-Tort, M., van Rijn, P., Park, M., Schönwiesner, M., & Jacoby, N. (2025). GlobalMood: A cross-cultural benchmark for music emotion recognition. *Proceedings of the International Society for Music Information Retrieval Conference (<i>ISMIR* 2025). https://doi.org/10.48550/arXiv.2505.09539

Lee, H., Van Geert, E., Çelen, E., Marjieh, R., van Rijn, P., Park, M., & Jacoby, N. (2025). Visual and Auditory Aesthetic Preferences Across Cultures. *Proceedings of the Annual Meeting of the Cognitive Science Society* (**CogSci**). https://doi.org/10.48550/arXiv.2502.14439

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

Sguerra, B., Epure, E. V., **Lee, H.**, & Moussallam, M. (2025). Biases in LLM-Generated Musical Taste Profiles for Recommendation. *ACM Recommender Systems (RecSys)*. https://doi.org/10.1145/3705328.3748030

- 2024 -

Marjieh, 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

Marjieh, 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

- 2023 -

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.**, Marjieh, 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

Marjieh, R.[†], van Rijn, P.[†], Sucholutsky, I.[†], Sumers, 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=0-G91-4cMdv

– 2022 **–**

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

— 2021 —

Lee, H., Höger, 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

- 2020-

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., & Mullensiefen, 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

In Review & Preprints Lee, H.⁺, Anglada-Tort, M.⁺, Sobchuk, O., van Rijn, P., Schönwiesner, M., Tchernichovski, O.*, Park, M.*, & Jacoby, N.* Rapid reshaping of cultural boundaries during war. *In Review.* Preprint https://doi.org/10.31234/osf.io/7b98u

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

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

PROFESSIONAL EXPERIENCES & ACTIVITIES

Research Expedition Field Experiments, Bolivia

Jul 2025 Conducted experiments across small-scale society Tsimané villages in the Bolivian Amazon —

video documentation: https://youtu.be/JbWHa7KTeBg

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: Topics in Cognitive Science; Scientific Reports; Transactions of the International Society

of Music Information Retrieval (TISMIR); Humanities and Social Sciences Communications;

Evolutionary Human Sciences; Psychology of Music; Music & Science

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

AWARDS & HONOURS

2025	Best Student Paper Award, Intl. Conf. on Music Perception and Cognition (ICMPC)
2025	Junior Research Fellowship, King's College, University of Cambridge (commencing Oct 2025)
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

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

2016 Joe Brown Memorial Scholarship, Music Department, Goldsmiths College — £500

- Big data on music, implications and future outlooks
- 2024 Al 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

- Oral International Society for Music Information Retrieval Conference (ISMIR), Dajeon, S.Korea
 Oral International Conference on Music Perception and Cognition (ICMPC), Sao Paulo, Brazil
 Poster Cognitive Science Society Annual Meeting (CogSci), San Francisco, US
 Oral Explaining culture: an interdisciplinary approach, ENS, Paris, France
 Oral Cultural Evolution Society (CES), Durham, UK
 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'.

 https://www.newscientist.com/article/2419442-pythagoras-was-wrong-about-the-maths-behind-pleasan t-music
- 2023 **BBC** 'Have your say: Does the weather influence the music you listen to?'. https://www.bbc.co.uk/newsround/65457387
- 2023 **PhysOrg** 'New research shows how cultural transmission shapes the evolution of music' https://phys.org/news/2023-03-cultural-transmission-evolution-music.html

TEACHING

- 2026 planned Faculty of Music, University of Cambridge
 - Postgraduate seminar course on 'Global Musical Tastes in the Age of Big Data'
- 2025 planned Tutorial, International Society for Music Information Retrieval Conference (ISMIR)

3-hour tutorial on 'PsyNet: Collecting Large-Scale Behavioral Datasets for MIR Applications'

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)

REFERENCES

Dr Nori Jacoby (kj338@cornell.edu)

Assistant Professor, Department of Psychology, Cornell University

Dr Marc Schönwiesner (marcs@uni-leipzig.de)

Dean, Faculty of Life Sciences, Leipzig University

Dr Minsu Park (minsu.park@nyu.edu)

Assistant Professor, Social Research and Public Policy, NYU Abu Dhabi

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).