Harin Lee

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EDUCATION

Oct 2020 — Present Dec 2020 — Present	**International Max Planck Research Schools Fellowship**, Germany PhD candidate, Max Planck Institute for Human Cognitive and Brain Sciences — Top Candidate Visiting Researcher, Max Planck Institute for Empirical Aesthetics
	[*Gap is due to serving the compulsory Korean military duties for two years*]
Oct 2017 — Oct 2018 Oct 2013 — Sep 2017	**Goldsmiths College, University of London**, UK MSc Music, Mind and Brain — Distinction BMus Popular Music — First Class Honours
Oct 2011 — Jul 2013	**Richard Huish College**, UK 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., Jacoby, N., Hennequin, R.*, & Moussallam, M.* (2024). Why cities vary in their cultural diversity. In review; 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 across 1,423 cities. 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., Rijn, P. van, 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

Lee, H., Sguerra, B., Moussallam, M., Jacoby, N., Hennequin, R. Regional spread dynamics predict song success. Draft available.

Lee, D., Lee, M., **Lee, H.**, Kim, D., Jung, D. Understanding era gap between the US and Korean music charts using music CNN. Draft available.

Ref. Journal Articles & Archival Conf. Proc

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

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.[†], Rijn, P. V.[†], 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=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. — Nomination 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

In Preparation   **Lee, H.**, Anglada-Tort, M., Park, M.*, Schoenwiesner, M.*, Jacoby, M.* Global melody and rhythm suggest independent cultural clusters.

Lee, H., Schoenwiesner, M.*, Jacoby, M.*, Park, M.*. GlobalPOP: convergent and divergent patterns in evolution of popular music across 55 countries since the 1950s.

Youngblood, M., **Lee, H**. Frequency-dependent selection in music listening and the influence of algorithmic recommendations.

PROFESSIONAL EXPERIENCES & ACTIVITIES

Research Intern May 2023 — Nov 2023	**Deezer Research**, Paris, France *Self-led project on understanding diversity in music listening.*
Program Committee	Co-chair in Music — ISMIR 2025
External Reviewer	Journals: *Transactions of the International Society of Music Information Retrieval (TISMIR)*, *Humanities and Social Sciences Communications*, *Psychology of Music*
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

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

2023   **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

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** — 17th 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** — 22nd International Society for Music Information Retrieval Conference (ISMIR), Virtual
2021 **Oral** — 16th 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**
Invited lecturer for 2-hour class on computational social science
2021 **Department of Life Science, Leipzig University**
Seminar on deploying massive online experiments using PsyNet

SKILLS

Language & Software R, Python, 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)

LIFE OUTSIDE ACADEMIA

Outside academia, I enjoy reading books in the park, playing tennis, and making music. I used to work as a part-time DJ, playing in major venues around London. I released two electronic pop music albums, which are available on major streaming platforms ('Youth' by Harin; 'In Dreams' by Computer Hope). During my undergraduate, I founded an online start-up called 'KCOS', a website that features a wide range of Korean cosmetic products for overseas purchase, linking UK customers directly to Korean sellers.

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