

# Nori Jacoby - Curriculum Vitae

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## EMPLOYMENT

Research Group Leader, “Computational Auditory Perception” 2018–current  
Max Planck Institute for Empirical Aesthetics, Frankfurt

## EDUCATION AND POSTDOCTORAL TRAINING

2016–2018: Presidential Scholar in Society and Neuroscience,  
The Center for Science and Society, Columbia University

2016: Visiting Postdoctoral Fellow, Berkeley (Griffiths Lab)

2014–2016: Postdoctoral Research Fellow, MIT (McDermott Lab)

2007–2014: PhD in Computational Neuroscience (Ahissar and Tishby Lab)  
The Edmond and Lily Safra Center for Brain Sciences (ELSC),  
The Hebrew University of Jerusalem

2001–2003: MSc in Mathematics, *Magna cum Laude*,  
The Hebrew University of Jerusalem

1998–2000: BSc in Mathematics and Physics, *Magna cum Laude*,  
Talpiot Military Academy, the Hebrew University Jerusalem

## PUBLICATIONS

- 2021: Langlois,\* T. A., **N. Jacoby**,\* J. Suchow, & T. L. Griffiths “Serial Reproduction Reveals the Geometry of Visuospatial Representations,” Forthcoming, *Proceedings of the National Academy of Sciences (PNAS)*.
- Niarchou, M., D. E. Gustavson, J. Fah Sathirapongsasuti, M. Anglada-Tort, E. Eising, E. Bell, E. McArthur, P. Straub, The 23andMe Research Team, J. D. McAuley, J. A. Capra, F. Ullén, N. Creanza, M. A. Mosing, D. Hinds, L. K. Davis, **N. Jacoby**, & R. L. Gordon. Unravelling the genetic architecture of musical rhythm: A large-scale genome-wide association study of beat synchronization. *bioRxiv* doi: <https://doi.org/10.1101/836197>
- Anglada-Tort, Manuel, Peter M. C. Harrison, & **N. Jacoby**. “REPP: A robust cross-platform solution for online sensorimotor synchronization experiments.” *bioRxiv*, <https://doi.org/10.1101/2021.01.15.426897>
- 2020: Vishne, G.,\* **N. Jacoby**,\* T. Malinovitch, T. Epstein, O. Frenkel, & M. Ahissar. “Impaired online error-correction disrupts synchronization to external events in autism.” *bioRxiv*, <https://doi.org/10.1101/2020.09.28.316828>
- Harrison, P. M. C., R. Marjeh, F. Adolphi, P. van Rijn, M. Anglada-Tort, O. Tchernichovski, P. Larrouy-Maestri, & **N. Jacoby**. “Gibbs sampling with people.” Oral presentation, NeurIPS Conference, *ArXiv* preprint: 2008.02595
- Roeske,\* T. C., O. Tchernichovski,\* D. Poeppel, and **N. Jacoby**. “Categorical rhythms shared between songbirds and humans.” *Current Biology* 30.18 3544-3555.e6. <https://doi.org/10.1016/j.cub.2020.06.072>.

- 2020: McPherson, M. J., S. E. Dolan, A. Durango, T. Ossandon, J. Valdes, E. A. Undurraga, **N. Jacoby**, R. A. Godoy & J. H. McDermott. "Perceptual fusion of musical notes by native Amazonians suggests universal representations of musical intervals." *Nature Communications* 11: 2786  
<https://www.nature.com/articles/s41467-020-16448-6>
- 2019: **Jacoby, N.**, Undurraga, E. A., McPherson, M. J., Valdes, J., Ossandon, T. & McDermott, J. H. (2019). Universal and non-universal features of musical pitch perception revealed by sung reproduction. *Current Biology* 29, 1–15.
- Mehr, S. A., Singh, M., Knox, D., Ketter, D. M., Pickens-Jones, D., Atwood, S., Lucas, C., Egner, A., **Jacoby, N.**, Hopkins, E. J., Howard, R. M., Pinker, S., O'Donnell, T. J., Krasnow, M. M. and Glowacki, L. "A natural history of song." *Science*, Vol. 366.6468, eaax0868 DOI: 10.1126/science.aax0868.
- Jacoby, N.**,\* E. H. Margulis\*, M. Clayton, E. Hannon, H. Honing, J. Iversen, T. R. Klein, S. A. Mehr, L. Pearson, I. Peretz, M. Perlman, R. Polak, A. Ravignani, P. E. Savage, G. Steingo, C. J. Stevens, L. Trainor, S. Trehub, M. Veal & M. Wald-Fuhrmann. "Cross-cultural work in music cognition: Challenges, insights and recommendations." *Music Perception* 37(3), 185-195
- Shany, O., Singer, N., Gold, B. P., **Jacoby, N.**, Tarrasch, R., Hendler, T., & Granot, R. "Surprise-related activation in the nucleus accumbens interacts with music-induced pleasantness." *Social Cognitive and Affective Neuroscience* (2019), <https://doi.org/10.1093/scan/nsz019>.
- 2018: Polak, R.\*, **Jacoby, N.**\*, Fischinger, T., Goldberg, D., Holzapfel, A. & London, J. "Rhythmic prototypes across cultures. A comparative study of tapping synchronization." *Music Perception*, 36.1 (2018): 1–23. DOI: 10.1525/mp.2018.36.1.1. \*Equal Contribution
- Elliott, M.T., Ward, D., Stables, R., Fraser, D., **Jacoby, N.** & Wing, A.M., "Analysing multi-person timing in music and movement: Event based methods." *Timing and Time Perception: Procedures, Measures, and Applications* (Leiden, Brill: 2018), 177-215.
- 2017: **Jacoby, N.** & McDermott, J. H. "Integer ratio priors on musical rhythm revealed cross-culturally by iterated reproduction." *Current Biology*  
<http://dx.doi.org/10.1016/j.cub.2016.12.031>.
- Langlois,\* T. A., **Jacoby, N.**\* Suchow, J. & Griffiths, T. L. "Uncovering visual priors in spatial memory using serial reproduction." Proceedings of the 39th Annual Meeting of the Cognitive Science Society. \*Equal Contribution
- Mehta, A H., **Jacoby, N.**, Yasin, I., Oxenham, A. J. & Shamma, S. "An Auditory illusion reveals the role of streaming in the temporal misallocation of perceptual objects." *Philosophical Transactions B* 372: 20160114. doi: 10.1098/rstb/372/1714.
- Polak, R., **Jacoby, N.** & London, J. "Afrikanistische Rhythmusforschung und die politische Dimension von Daten. Drei Analysen eines Mehrspur-Audio-Korpus von Percussion-Ensemblemusik aus Mali." *Zeitschrift der Gesellschaft für Musiktheorie*, 13.2, 2016.
- Murton, O, Zipse, L., **Jacoby, N.** & Shattuck-Hufnagel, S. "Repetition and a Beat-Based Timing Framework: What Determines the Duration of Intervals Between Repetitions of a Tapping Pattern?" *Timing and Time Perception* 5.3-4, 244-259.

- 2016: Singer, N., **Jacoby, N.**, Lin, T., Raz, G., Shpigelman, L., Gilam, G., Granot, R.Y. & Hendler, T., “Common modulation of limbic network activation underlies the unfolding of musical emotions and its temporal attributes.” *Neuroimage* 141, 517–29.
- London, J., Polak, R. & **Jacoby, N.** “Rhythm histograms and musical meter: a corpus study of malian percussion music,” *Psychonomic Bulletin and Review*, doi: 10.3758/s13423-016-1093-7.
- Polak, R.\*, **Jacoby, N.\***, & London, J\*. “Both isochronous and non-isochronous metrical subdivision afford precise and stable ensemble entrainment: A corpus study of Malian jembe drumming.” *Frontiers in Auditory Neuroscience*, doi: 10.3389/fnins.2016.00285. \*Equal contribution
- Eloul, S., Zissu, G., Amo, Y.H. & **Jacoby, N.**, “Motion tracking as a novel way to control electronic music performance,” *Leonardo*, 49.3, 203-10.
- Honisch, J. J., Elliott, M. E., **Jacoby, N.** & Wing, A. M. “Cue properties change timing strategies in group movement synchronization.” *Scientific Reports* 6: 19439. Doi:10.1038/srep19439.
- 2015: **Jacoby, N.** & Ahissar, M. “Assessing the applied benefits of perceptual training: lessons from studies of working-memory training.” *Journal of Vision*, August 2015, Vol.15,6. Doi: 10.1167/15.10.6.
- Jaffe-Dax, S., Raviv, O., **Jacoby, N.**, Loewenstein, Y. & Ahissar, M., “Towards a computational model of dyslexia.” *The Journal of Neuroscience* 35.35: 12116-26.
- Jacoby, N.**, Repp, B. H., Ahissar, M., Tishby, N. & Keller, P. “Parameter estimation of linear sensorimotor synchronization models: Phase correction, period correction and ensemble synchronization.” *Timing & Time Perception*, Doi: 10.1163/22134468-00002048.
- Jacoby, N.**, Naftali Tishby, & Dmitri Tymoczko. “Information bottleneck and functional harmony.” *Journal of New Music Research*, Doi: 10.1080/09298215.2015.1036888.
- Jacoby, N.**, Keller, P. E., Repp, B. H., Ahissar, M. & Tishby, N. “Lower bound on the accuracy of parameter estimation methods for linear sensorimotor synchronization models.” *Timing & Time Perception*, Doi: 10.1163/22134468-00002047.
- Van der Steen, M., **Jacoby, N.**, Fairhurst, M. T. & Keller, P.E. “Sensorimotor synchronization with tempo changing auditory sequences: modeling temporal adaptation and anticipation.” *Brain Research*, Doi: 10.1016/j.brainres.2015.01.053.
- 2013: Lipkind, D., Marcus, G.F., Bemis, D.K., Sasahara, K., **Jacoby, N.**, Takahasi, M., Suzuki, K., Feher, O., Ravbar, P., Okanoya, K. & Tchernichovski, O. “Stepwise acquisition of vocal combinatorial capacity in songbirds and human infants.” *Nature*, vol. 498, 104–8.
- Jacoby, N.** & Ahissar, M. “On the limitations of perceptual learning as a rehabilitation tool.” In *Progress in Brain Research: Changing Brains - Applying Brain Plasticity to Advance and Recover Human Ability*. Michael Merzenich, Mor Nahum and Tom Van Vleet, eds. Elsevier, 2013.

- 2013: Gurion, T. & **Jacoby, N.** "Audio-only augmented reality system for social interaction." *HCI International 2013-Posters' Extended Abstracts*. Springer Berlin Heidelberg, 2013. 322-6.
- 2012: **Jacoby, N.** & Repp, B. H. "A General linear framework for the comparison and evaluation of models of sensorimotor synchronization." *Biological Cybernetics*, vol. 106/3, 135-154. doi: 10.1007/s00422-012-0482-x.
- Bohannon, P., Dalvi, N., Filmus, Y., **Jacoby, N.**, Keerthi, S. & Kirpal, A. "Automatic web-scale information extraction." *Proceedings of the 2012 ACM SIGMOD International Conference on Management of Data*, 609-612.
- 2011: Repp, B. H., Keller, P. E. & **Jacoby, N.** "Quantifying phase correction in sensorimotor synchronization: empirical comparison of three paradigms." *Acta Psychologica* 139, no. 2: 281-90.
- Granot, R. Y. & **Jacoby, N.** "Musically puzzling I: Sensitivity to overall structure in sonata form?" *Musica Scientiae* 15, no. 3: 365-86.
- Granot, R. Y. & **Jacoby, N.** "Musically puzzling II: Sensitivity to overall structure in a Haydn e-minor sonata?" *Musica Scientiae* 16, no.1, 67-80.
- 2004: Lawrence, Ruth & **Jacoby, N.** "Some computations of Ohtsuki series." *Advances in Topological Quantum Field Theory*, J. Bryden, ed. Kluwer, 53-70.

## CONFERENCE PRESENTATIONS

- 2020 Harrison, P. M. C., R. Marjeh, F. Adolphi, P. van Rijn, M. Anglada-Tort, O. Tchernichovski, P. Larrouy-Maestri, & **N. Jacoby**. "Gibbs sampling with people." Oral presentation, NeurIPS Conference, *ArXiv*: 2008.02595.
- 2019 **Jacoby, N.** & M. Zimmermann. "Rhythm Categories Without Auditory Experience? Perceptual Priors Reveal by Haptic Rhythm Reproduction in the Congenitally Deaf Subjects." 2<sup>nd</sup> Conference of the Timing Research Forum, Queretaro, Mexico. October 15, 2019
- Jacoby, N.**, Polak, R., Grahn, J., Cameron, D., Savage, P., Fuji, S., Clayton, M., Jakubowski, K., Lee, K. M., Margulis, E., Wong, P. C. M., Mungan, E., Rocamora, M., Undurraga, E. A., Alladi, S., Rao, P., Rohit, M. A., Jure, L. Huanca, T., Conde, E., Godoy, R., Goldberg, D., Thalwitzer, T., Holzapfel, A. and McDermott, J. H. "Universal Constraints on Rhythm Revealed by Largescale Cross-cultural Comparisons of Rhythm Priors." 2<sup>nd</sup> Conference of the Timing Research Forum, Queretaro, Mexico. October 15, 2019
- Nave, K., C. Carrillo, J. Mussio, **N. Jacoby**, L. Trainor & E. Hannon. "The Development of Rhythmic Categories as Revealed Through a Perception Task and a Production Task" 2<sup>nd</sup> Conference of the Timing Research Forum, Queretaro, Mexico. October 15, 2019
- "Aberrant statistical learning impairs sensorimotor synchronization in autism spectrum disorders." Vishne, G., **Jacoby, N.**, Frenkel, O. and Ahissar, M. Poster presentation at the International Conference on Interdisciplinary Advances in Statistical Learning, San Sebastian, Spain, June 27-29, 2019.
- "Spatial memory biases reflect encoding precision and not categorical perception." Langlois, T. A.\* **Jacoby, N.**,\* Suchow, J. W. Griffiths, T. L. Poster presentation at the Annual meeting of the Vision Sciences Society St. Pete Beach, Florida, May 17-22, 2019. \*Equal Contribution
- "A Natural history of song." Mehr, S. A., Singh, M., Knox, D., Ketter, D. M., Pickens-Jones, D., Atwood, S., Lucas, C., Egner, A., **Jacoby, N.**, Hopkins,

- E. J., Howard, R. M., Pinker, S., O'Donnell, T. J., Krasnow, M. M. & Glowacki, L. Poster presentation at the European Human Behavior and Evolution Association Annual Conference Toulouse, France, April 24-26, 2019.
- 2019: "Individual differences and cross-cultural variation in pitch perception revealed by sung reproduction." **Jacoby, N.**, Undurraga, E. A., McPherson, M. J., Valdes, J., Ossandon, T. and McDermott, J. H. Poster presentation at the 42nd Midwinter Meeting, ARO Baltimore, Maryland, February 9-13, 2019.
- "The biological and cultural basis of rhythmic representations: a global survey of rhythm priors." **Jacoby, N.**, Polak, R., Grahm, J., Cameron, D., Savage, P., Fuji, S., Clayton, M., Jakubowski, K., Lee, K. M., Margulis, E., Wong, P. C. M., Mungan, E., Rocamora, M., Undurraga, E. A., Alladi, S., Rao, P., Rohit, M. A., Jure, L. Huanca, T., Conde, E., Godoy, R., Goldberg, D., Thalwitzer, T., Holzapfel, A. and McDermott, J. H. Poster presentation at the 42nd Midwinter Meeting, ARO Baltimore, Maryland, February 9-13, 2019.
- "Assessing pitch perception using sung reproduction." McPherson, M. J., **Jacoby, N.** and McDermott, J. H. Poster presentation at the 42nd Midwinter Meeting, ARO Baltimore, Maryland, February 9-13, 2019.
- 2018: "Reduced use of recent stimuli in autistics' priors." Vishne, G., Jacoby, N., Frenkel, O. and Ahissar, M. The 5th Conference on Cognition Research of the Israeli Society for Cognitive Psychology, Acre, Israel, February 13, 2018.
- "Cross-cultural similarities and differences in musical pitch representations." **Jacoby, N.** and McDermott, J. H. 41st ARO MidWinter Meeting, San Diego, February 10-14, 2018.
- 2017: "Musical rhythm: Evolutionary and cross-cultural perspectives." A symposium featuring Ravignani, A., **Jacoby, N.**, Patel, A. and Grahm, J. 1st Conference of the Timing Research Forum, October 23-25, 2017.
- "Priors on musical rhythm revealed cross-culturally by iterated reproduction." **Jacoby, N.**, Grahm, J., Cameron, D., Lee, K. M., Undurraga, E. A., Godoy, R. and McDermott, J. H. Poster presentation, 6th Meeting of the International Conference on Auditory Cortex, Banff, 2017.
- "The effect of culture on rhythm perception: A cross-cultural synchronization study." Polak, R., **Jacoby, N.**, Fischinger, T., Goldberg, D., Holzapfel, A. and London, J. Presentation at the 33rd Annual Meeting of the German Society for Music Psychology (DGM), Hamburg, September 15-17, 2017.
- "Cross-cultural variation in sensorimotor synchronization with simple rhythms: a comparative tapping study." Polak, R., **Jacoby, N.**, Fischinger, T., Goldberg, D., Holzapfel, A. and London, J. 16th Rhythm Production and Perception Workshop, July 3-5, 2017.
- "Rhythmic perceptual priors revealed by iterated reproduction." **Jacoby, N.** and McDermott, J. H. 16th Rhythm Production and Perception Workshop, July 3-5, 2017.
- "Universality of infant-directed music." Mehr, S., Singh, M., **Jacoby, N.**, York, H., O'Donnell, T., Krasnow, M. and Glowacki, L. 29th Annual Meeting of the Human Behavior and Evolution Society, May 31-June 3, 2017.

- 2017 “Rhythmic perceptual priors revealed by iterated reproduction.” **Jacoby, N.** and McDermott, J. H. New England Sequencing and Timing (NEST) Meeting, March 25, 2017.
- “Perceptual priors on musical rhythm revealed by iterated reproduction.” **Jacoby, N.** and McDermott, J. H. 40<sup>th</sup> ARO Mid-Winter Meeting, Baltimore, February 11-15, 2017.
- 2016: “Cue properties change timing strategies in group movement synchronisation.” Honisch, J. J., Elliott, M. T., **Jacoby, N.** and Wing, A. M. Sport Plaisir Conference on Motor Behavior and Emotion, University of Lille, France, Nov. 21-23, 2016.
- “Cross-modal ‘goodness of fit’ judgments of auditory and visual meter in musical rhythms.” Palmer, S. E., Peterson, J., and Jacoby, N. 57<sup>th</sup> Annual Meeting, Psychonomic Society, Boston, Nov. 17-20, 2016.
- “Musical roles and individual behavior in ensemble entrainment in jembe drum ensemble music from Mali.” **Jacoby, N.**, Polak, R. and London, J. Annual Meeting, Society for Music Theory, Vancouver, BC, Nov. 3-6, 2016.
- “Empirical musicology, African rhythm, and the politics of data: Cross-cultural research depends on interdisciplinary collaboration.” Polak, R., **Jacoby, N.** and London, J. Internationaler Kongress der Gesellschaft für Musikforschung, Johannes Gutenberg-Universität Mainz, September 14-17, 2016.
- “Ensemble synchronization and leadership in Jembe drumming music from Mali.” **Jacoby, N.**, Polak, R. and London, J. 14<sup>th</sup> Biennial International Conference on Music Perception and Cognition (ICMPC), UCSF, San Francisco, July 5-9, 2016.
- “Statistical learning for musical meter revisited: A corpus study of Malian percussion music.” London, J., **Jacoby, N.** and Polak, R. 14<sup>th</sup> Biennial International Conference on Music Perception and Cognition (ICMPC), UCSF, San Francisco, July 5-9, 2016.
- “Individual differences and reading skills: another PATH needed?” **Jacoby, N.**, Tishby, N., Jakoby, H., and Ahissar, M. 14<sup>th</sup> Biennial International Conference on Music Perception and Cognition (ICMPC), UCSF, San Francisco, July 5-9, 2016.
- “Rhythmic perceptual priors revealed by iterated reproduction.” **Jacoby, N.** and Josh McDermott. 14<sup>th</sup> Biennial International Conference on Music Perception and Cognition (ICMPC), UCSF, San Francisco, July 5-9, 2016.
- “How West African drummers keep in time together: Musical roles and individual behavior in ensemble entrainment in jembe music from Mali.” Polak, R., **Jacoby, N.** and London, J. 4<sup>th</sup> International Conference on Analytical Approaches to World Music (AAWM), The New School, NYC, June 8-11, 2016.
- 2015: “The cognitive correlates of sensorimotor synchronization.” **Jacoby, N.**, Tishby, N., Jakoby, H. and Ahissar, M. Biennial meeting of the Society for Music Perception & Cognition (SMPC), Vanderbilt University, August 1-5, 2015.
- “Ensemble entrainment in jembe music from Mali.” Polak, R., **Jacoby, N.** and London, J. RPPW 15 (Rhythm Production and Perception Workshop), University of Amsterdam, Netherlands, July 6–8, 2015.

- 2015: “An information-theoretic approach to chord categorization: from corpus analysis to cognitive experiment.” **Jacoby, N.**, Tishby, N., Lieder, I. and Tymoczko, D. Talk at NEMCOG (Northeast Music Cognition Group), Wesleyan University, Middletown, CT. April 4, 2015.
- “The cognitive correlates of sensorimotor synchronization.” **Jacoby, N.**, Tishby, N., Jakoby, H. and Ahissar, M. New England Sequencing and Timing (NEST), UMass Amherst, March 7, 2015.
- “Towards a computational model of dyslexia.” Jaffe-Dax, S., Raviv, O., **Jacoby, N.**, Loewenstein, Y., Ahissar, M. Poster at Cosyne, Salt Lake City March 5-8, 2015.
- 2014: “The effect of ensemble size, musical role, and individual performer on collective entrainment in khasonka drumming from mali,” London, J., **Jacoby, N.**, Polak, R. ICMPC 13-APSCOM 5, Yonsei University, Seoul, South Korea, August 4–8, 2014.
- “An information-theoretic approach to functional harmony.” **Jacoby, N.** and Tishby, N. IMS Annual Musicology Conference, Tel-Aviv, June 23, 2014.
- “Movement entrainment when walking (and bouncing!) in group formations.” Elliott, M., **Jacoby, N.** and Wing, A. M. ISPGR Symposium on Multi-Person Entrainment in Gait and Posture, Vancouver, Canada. June 29- July 3, 2014.
- “Finger-tapping, rhythm and working memory: the cognitive correlates of sensorimotor synchronization.” **Jacoby, N.** and Ahissar, M. Annual Conference, HUJI Psychology Department, Jerusalem, Israel. June 19, 2014.
- 2013: “Information, working memory and prediction: a mathematical metaphor for art, music and perception?” 2013 Annual Meeting of the Society for Psychophysiological Research, Florence, Italy.
- “Parameter estimation of sensorimotor synchronization models.” RPPW '13 (Rhythm Production and Perception Workshop), Birmingham, UK.
- “Audio-only augmented reality system for social interaction.” Gurion, T. and **Jacoby, N.** Paper at IEEE ISTAS '13, Toronto.
- “Information, categorization and prediction: a mathematical metaphor for art, music, and perception?” Information, Representation and Learning: An international workshop in honor of Naftali Tishby, Jerusalem.
- “Information, categorization and prediction: A mathematical metaphor for art, music, and perception?” “Music and Brains: the Surprising Link” Conference, Jerusalem.
- 2012: “Tapping working memory with sensorimotor synchronization.” Poster at the Israel Society for Neuroscience's Annual Conference, Eilat.
- “Kernel information bottleneck.” Neural Information Processing Systems Foundation (NIPS) workshop: “Information in Perception and Action,” Nevada, USA.
- “Tapping working memory with sensorimotor synchronization.” Poster at the Society for Neuroscience's Annual Conference, New Orleans, USA.

- “Kernel information bottleneck as a metaphor for music and art perception.”  
Monte Verita Workshop on Music and Neuroscience, Ascona, Switzerland.
- “Kernel information bottleneck.” Interdisciplinary Center for Neural  
Computation's Annual Retreat, Ein Gedi.
- 2011: “When the rat heard Ligeti: neural sensitivity to auditory structure.” Bitterman,  
Y., Hashahar-Shapira, A., Hershenhoren, I., **Jacoby, N.**, Yaron, A. and  
Nelken, I. Poster at the 20th Annual Meeting of the Israel Society for  
Neuroscience, Eilat.
- 2011: “Multiple neural networks depicted by continuous measurement of the musical  
emotional experience.” Singer, N., Abecasis, D., Pasternak, E., **Jacoby, N.**,  
Granot, R. Y., Hendler, T. Poster at Neurosciences and Music Conference  
IV: Learning and Memory. Edinburgh, Scotland.
- “Preliminary results with the action perception model of tapping.” The  
Columbia / Gatsby / ICNC Workshop, Columbia University, New York.
- “A general linear framework for the comparison and evaluation of models of  
sensorimotor synchronization.” **Jacoby, N.** and Repp, B. H., Western  
Society for Sequence and Timing (WEST) annual meeting, Santa Barbara,  
California.

## INVITED TALKS

- 2021 Keynote, title TBD, 2021 edition of SysMus November 3-5, 2021 at Aarhus  
University, Denmark
- 2020 Keynote, “Universality and cross-cultural variation in mental representations  
of music revealed by large-scale comparisons of rhythm priors.” The 16th  
Annual McMaster Neuromusic Virtual Conference, November 14th, 2020
- 2019: Cross-cultural categorical perception without words: The case of musical  
rhythm. “Rate and Rhythm in Speech Recognition” (R3) Workshop,  
organized by the TEMPoral Organization of Speech (TEMPOS) research  
cluster at the Max Planck Institute for Psycholinguistics in Nijmegen, The  
Netherlands.
- “The cultural foundations of auditory processing.” Presidential Scholars in  
Society and Neuroscience Symposium, Columbia University.
- “A global survey of rhythm representations.” Brown Bag Lunch Seminar  
Series, Max Planck Institute for Empirical Aesthetics.
- “Mapping cross-cultural perceptual musical spaces.” New York University.
- “Categorical perception in rhythm.” Yale University.
- 2018: “A global survey of rhythm representations.” BRAMS, International  
Laboratory for BRAin, Music and Sound Research.
- “The world in 30 beats: A global survey of rhythm representations.” Western  
University.
- “Using iterated learning to reveal internal representations in audition and  
vision.” Center for Theoretical Neuroscience at Columbia University.
- “Around the world in 30 beats.” Neurohumanities Study Day, Longroom  
Hub, Trinity College Dublin.



- “Cross-cultural similarities and differences in musical pitch representations.” CCS Colloquium/Perception Lunch (hosted by the Oxenham Lab), University of Minnesota.
- “Conversing music: Rhythmic coordination in Jazz improvisation.” Rhythm Research Cluster Symposium: Exploring Musical Time Series Modeling Rhythmic Complexity, University of British Columbia.
- “Around the world in 30 beats: A lecture-demonstration.” Rhythm Research Cluster Symposium: Exploring Musical Time Series Modeling Rhythmic Complexity, University of British Columbia.
- 2017: “Computational music cognition in the field: Studying perceptual priors cross-culturally with iterated reproduction.” Conference on the Origins of Music in Non-State Societies, Abbaye de Royaumont.
- “Music and neuroscience: Cross-cultural research.” Workshop on Sound Studies, Columbia University and Paris Sciences et Lettres.
- “Perceptual priors revealed by iterated reproduction.” Psychology Department Colloquium, Durham University.
- “What can rhythm tell us about cognition? Insights from iterated reproduction.” Music Department Colloquium, Columbia University.
- 2016: “Integer ratio priors on musical rhythms.” Invited talk, Cog Lunch Series, MIT.
- “Perceptual priors in music and speech revealed by iterated learning.” Guest lecture, CCRMA, Stanford University.
- “Rhythmic perceptual priors revealed by iterated learning.” Pandora, Oakland.
- “Perceptual priors in music and speech revealed by iterated learning.” Starkey Hearing Research Center, Berkeley.
- “Parameter estimation of linear models.” Workshop on Interpersonal Entrainment in Music Performance, Durham University.
- “Iterated learning in musical rhythms.” Keynote, Bay Innovative Signal Hackers Bash hosted by Dolby San Francisco.
- “Discovering rhythmic perceptual priors with iterated learning.” Max Planck Institute for Empirical Aesthetics, Frankfurt.
- “Discovering rhythmic perceptual priors with iterated learning.” Colloquium, the Music, Mind, and Society series at Vanderbilt University.
- 2015: “Discovering rhythmic perceptual priors with iterated learning.” New York University (David Poeppel’s Lab).
- 2014: “Finger tapping, rhythm and working memory: the cognitive correlates of sensorimotor synchronization.” ELSC Nervous Club, Hebrew University of Jerusalem.
- “Parameter estimation of sensorimotor synchronization models.” University of Birmingham (Alan Wing’s Lab).
- “Finger tapping, rhythm and working memory: the cognitive correlates of sensorimotor synchronization.” MIT (Josh McDermott’s Lab).
- 2013: “Measuring multi-person timing: state of the art methods and analyses.” Invited speaker, Pre-Conference Workshop, RPPW, University of Birmingham.

- “Information, categorization and prediction: A Mathematical metaphor for art music and perception?” Guest lecture at the Electrical Engineering Systems Department Seminar Series at Tel-Aviv University.
- 2013: “Information, categorization and prediction: A Mathematical metaphor for art music and perception?” Invited lecture at the Gonda Brain Research Center Weekly Seminar (Spring-Summer Series) at Bar-Ilan University.
- 2011: “Reinforcement learning and computational methods in music cognition.” Tutorial at the 3rd International Conference on Mathematics and Computation in Music at IRCAM, Paris.
- “Sound editing for experimental design.” Tutorial at the 3rd meeting of the Israeli Music Cognition Group (IMCOG), Bar-Ilan University.
- 2010: “Linear models of sensorimotor synchronization.” Guest lecture, the Center for Computer Research in Music and Acoustics (CCRMA), Stanford University.

## GRANTS

- 2019 Poudrier, Ève (PI); **Nori Jacoby**, Daniel Shanahan, and George Tzanetakis(collaborators). “Modeling Polyrhythmic Experience.” SSHRC Insight Grant, CAD 253,964
- 2019 Savage, Patrick (PI), **Nori Jacoby**, and Elizabeth H. Margulis (collaborators). “Global Music Cognition Network.” Japan Society for the Promotion of Science, USD 200,000

## HONORS AND AWARDS

- 2014: ELSC Brain Sciences Postdoctoral Fellowship for Training Abroad.
- 2012: Daniel Amit Memorial Prize in Computational Neuroscience, the Edmond and Lily Safra Center for Brain Sciences, Hebrew University of Jerusalem.
- 2008: Margalit Prize for music for Ruti Kanner’s play Go’al
- 2004: Israeli Defense Forces C&I Prize for Significant Creative Research
- 2003: *Magna Cum Laude*, the Hebrew University of Jerusalem, for MSc.
- 2003: Israeli Defense Forces’ Prize for Algorithmic Development
- 2000: *Magna Cum Laude*, the Hebrew University of Jerusalem, for BSc.
- 1997–1998: Award, the America-Israel Cultural Foundation for Composition
- 1995–1998: Deans List Awards for Excellence in Mathematics, the Open University

## PROFESSIONAL EXPERIENCE

- 2009-2014: Lecturer, Music Technology Program, Bar-Ilan University
- 2010-2014: Data scientist, Yahoo Israel
- 2007-2010 Senior algorithmic developer, Dapper (acquired by Yahoo in Oct. 2010)
- 2006–2008: Lecturer, the Naggar School for Music, Media and Photography
- 2012: Instructor, Hebrew University of Jerusalem
- 2000-2007: Captain in a research and development unit, the Israeli Defense Forces.