

# Publication list

József Arató

June 2026

## Publications

### • Preprints/Under review/In prep:

1. Bressgott, J., & **Arato, J.** (2026). Reward network state dynamics track ASD symptom severity but not diagnosis. *bioRxiv*.
2. Podolin N., Mikuni J. **Arato, J.**: Facilitation or impairment: Social evaluation affects working memory through factors beyond task difficulty *OSF, Under review*
3. Pegler, D., Steyrl, D., Zhang, M., Karner, A., **Arato, J.**, Scharnowski, F., & Melinscak, F. (2025). SpiderNets: Estimating Fear Ratings of Spider-Related Images with Vision Models. arXiv preprint arXiv:2509.04889.
4. **Arato, J.**<sup>1</sup>, Nagy M.<sup>1</sup> Fiser J.: Pupil and gaze dynamics jointly measure individual statistical learning, *In Prep*
5. **Arato, J.** PyEyeSim: A python package for fixation map and scanpath comparison and visualization *In Prep*

### • Journal Articles:

1. Horn L., **Arato J.**, Ceral R. Markova G. (2026): Decoding preschool social dynamics: Automated tracking of spatial and temporal patterns to investigate social interactions and relationships in peer groups, *Developmental Science 29, no. 4: e70241*
2. Aczel, B., Szaszi, B., Clelland, H. T., Kovacs, M., Holzmeister, F., Van Ravenzwaaij, D., ... **Arato J.** ... & Gerald, D. (2026). Investigating the analytical robustness of the social and behavioural sciences. *Nature*.
3. Spee, B. T. M., **Arato, J.**, Pelowski, M.... Sirwan, D (2025): Prevalence of Experienced Artistic and Domestic Creativity Changes in People with Parkinson's Disease *npj Parkinson's Disease, 11(1), 97*.
4. **Arato, J.**<sup>1</sup>, White, M. P.<sup>1</sup>, Davison, S. M., Pahl, S., Taylor, T., Krainz, M., Attrill T., Taylor T., Pahl S., McMeel O., Kellert P. Fleming, L. E. (2024). Environmental protection is more important to European citizens of all political persuasions than economic growth: A 14-country study in the marine context. *Marine Pollution Bulletin, 207, 116845*.
5. **Arato, J.**, Rothkopf, C. A., & Fiser, J.(2024): Eye movements reflect active statistical learning. *Journal of Vision*
6. Miscena A., Frentzen V. **Arató, J.**, Dare, Z., Leder H., & Rosenberg, R. (2024). No such thing as the female eye: ditching gender-binary categories in art perception, *Feminist media studies*
7. Spee, B. T. M., **Arató, J.**, Mikuni, J., Tran, U. S., Pelowski, M., & Leder, H. (2024). The Dynamics of Experiencing Gestalt and Aha in Cubist Art: Pupil Responses and Art Evaluations Show a Complex Interplay of Task, Stimuli Content, and Time Course. *Frontiers in Psychology, 15, 1192565*.

8. Pelowski, M., Spee, B., **Arató, J.**, Dörflinger, F., Ishizu, T., & Richard, A. (2024). Measures, constructs, and constructing measurement: Reply to comments on "Can we really 'read' art to see the changing brain?". *Physics of Life Reviews*, 48, 22-30.
9. Specker, E., **Arató, J.**, & Leder, H. (2023). How are real artworks and reproductions judged? The role of anchoring in empirical investigations of the genuineness effect. *Journal of Experimental Social Psychology*, 108, 104494. .
10. Pelowski, M., Spee, B. T., **Arató, J.**, Dörflinger, F., Ishizu, T., & Richard, A. (2022). Can we really 'read' art to see the changing brain? A review and empirical assessment of clinical case reports and published artworks for systematic evidence of quality and style changes linked to damage or neurodegenerative disease. *Physics of life reviews*, 43, 32-95
11. Spee, B. T., Pelowski, M., **Arató, J.**, Mikuni, J., Tran, U. S., Eisenegger, C., & Leder, H. (2022). Social reputation influences on liking and willingness-to-pay for artworks: A multi-method design investigating choice behavior along with physiological measures and motivational factors. *Plos one*, 17(4), e0266020.
12. **Arató, J.**, & Fitch, W. T. (2021). Phylogenetic signal in the vocalizations of vocal learning and vocal non-learning birds. *Philosophical transactions of the royal society B*, 376(1836), 20200241.
13. Guo, C., Tsegaye, A., **Arató, J.**, & Logemann, H. A. (2021). The role of attention, inhibition and statistical learning in Chinese character recognition by novices. *Current Research in Behavioral Sciences*, 2, 100012.
14. Miscena, A., **Arató, J.**, & Rosenberg, R. (2020). Absorbing the gaze, scattering looks: Klimt's distinctive style and its two-fold effect on the eye of the beholder. *Journal of Eye Movement Research*, 13(2).
15. Sancarolo, R., Dare, Z., **Arató, J.**, & Rosenberg, R. (2020). Does pictorial composition guide the eye? Investigating four centuries of last supper pictures. *Journal of Eye Movement Research*, 12(2).
16. Mustafar, F., Harvey, M. A., Khani, A., **Arató, J.**, & Rainer, G. (2018). Divergent solutions to visual problem solving across mammalian species. *ENeuro*, 5(4).
17. Nair, J., Klaassen, A. L., **Arató, J.**, Vyssotski, A. L., Harvey, M., & Rainer, G. (2018). Basal forebrain contributes to default mode network regulation. *Proceedings of the National Academy of Sciences*, 115(6), 1352-1357.

• **Selected Conference Papers:**

1. Long X., **Arato J.**, Kury S., Miscena A., & Rosenberg R. 2026. HeatMatch: Orientation-Aware Visualization and Comparison of Very Dense Saccade Patterns. Proc. ACM Comput. Graph. Interact. Tech. 9, 2, Article 18 (June 2026),
2. **Arato, J.**, & Fitch, T. (2021). Evolutionary influences in learned bird communication signals. In Proceedings of the Annual Meeting of the Cognitive Science Society (Vol. 43, No. 43).
3. Nagy, M., **Arato, J.**, & Fiser, J. (2021). Pupil dynamics signals visuo-spatial statistical learning. *Journal of Vision*, 21(9), 2005-2005.
4. Fiser, J., Koblinger, A., & **Arato, J.** (2019). Reliability-based arbitration between noise and event-based component of observers' internal model during perceptual decision making. *Journal of Vision*, 19(10), 59c-59c.
5. Fiser, J., **Arato, J.**, Khani, A., & Rainer, G. (2016). Change-related weighting of statistical information in visual decision making. *Journal of Vision*, 16(12), 574-574.
6. **Arató, J.**, & Fiser, J. (2015). Information integration in sequential visual decision-making. *Journal of vision*, 15(12), 385-385.
7. **Arató, J.**, & Fiser, J. (2014). Short term and baseline effect in the estimation of probabilistic visual event sequences. *Journal of Vision*, 14(10), 373-373.

## Invited talks

- Interdisciplinary Advances in Statistical Learning (June/2024, San Sebastian): Pupil and gaze dynamics jointly measure individual statistical learning
- Cognition and Communication Retreat (July/2020 Krems an der Donau, Austria): Career talk
- Rank Prize Symposium (March/2017, Grasmere, UK): Adaptive effects in sequential visual decision making across species

## Citation statistics

- Scopus: 202 citations for 17 papers, h-index 7
- Google Scholar: 316 citations for 16 papers, h-index 8