

# Tristan Skye Yates

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## Academic Appointments

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2023-Present     *Columbia University*  
Postdoctoral Research Scientist  
Advisor: Nim Tottenham

## Education

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2018-2023     *Yale University*  
Ph.D., Cognitive Psychology  
Advisor: Nicholas Turk-Browne  
Thesis topic: Learning, memory, and perception in infants using fMRI

2014-2018     *Emory University*  
B.S., Neuroscience and Behavioral Biology, High Honors  
Thesis advisor: Patricia Bauer  
Thesis topic: Transitive relations in knowledge integration in preschoolers

2016             *University of St. Andrews*  
Institute of Behavioral and Neural Sciences Study Abroad

## Awards and Honors

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2023     2022 Cozzarelli Prize Class V Finalist (Yates et al., 2022, *PNAS*)  
2023     Yale 3-Minute Thesis Competition Social Sciences Division Runner-Up  
2022     Vision Sciences Society Travel Award  
2021     Vision Sciences Society Travel Award  
2018     NSF Graduate Research Fellowship  
2018     Yale Psychology Sterling Prize Fellowship  
2018     Emory University Academic Coach of the Year  
2017     Emory University Independent Research Grant (\$1,000)  
2017     Barry Goldwater Scholarship Honorable Mention  
2017     Emory University Travel Grant (\$500, Cognitive Development Society)  
2016     Barry Goldwater Scholarship Honorable Mention  
2016     Emory Scholars Program Dean's Achievement Scholarship  
2016     Phi Beta Kappa National Honors Society  
2015     Phi Eta Sigma National Freshman Honors Society

## Publications

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\*equal contribution

**Yates, T. S.**, Ellis, C. T., & Turk-Browne, N. B. (2023). Functional networks in the infant brain during sleep and wake states. *Cerebral Cortex*, bhad327.

**Yates, T. S.**, Sherman, B. E., & Yousif, S. R. (2023). More than a moment: What does it mean to call something an 'event'? *Psychonomic Bulletin & Review*.

Ongchoco, J. D. K., **Yates, T. S.**, & Scholl, B. J. (in press). Event segmentation structures temporal experience: Simultaneous dilation and contraction in rhythmic reproductions. *Journal of Experimental Psychology: General*.

- Yates, T. S., & Lewkowicz, D. J.** (2023). Robust holistic face processing in early childhood during the COVID-19 pandemic. *Journal of Experimental Child Psychology*, 232, 105676.
- Yates, T. S., Ellis, C. T., & Turk-Browne, N. B.** (2023). Face processing in the infant brain after pandemic lockdown. *Developmental Psychobiology*, 65(1), e22346.
- Yates, T. S., Skalaban, L. J., Ellis, C. T., Bracher, A. J., Baldassano, C., & Turk-Browne, N. B.** (2022). Neural event segmentation of continuous experience in human infants. *Proceedings of the National Academy of Sciences*, 119(43), e2200257119.
- Ellis, C. T., **Yates, T. S.**, Skalaban, L. J., Bejjanki, V. R., Arcaro, M. J., & Turk-Browne, N. B. (2021). Retinotopic organization of visual cortex in human infants. *Neuron*, 109, 1-11.
- Ellis, C. T., Skalaban, L. J., **Yates, T. S.**, Bejjanki, V. R., Córdova, N. I., & Turk-Browne, N. B. (2021). Evidence of hippocampal learning in human infants. *Current Biology*, 31, 1-7.
- Ellis, C. T., Skalaban, L. J., **Yates, T. S.**, & Turk-Browne, N. B. (2021). Attention recruits frontal cortex in human infants. *Proceedings of the National Academy of Sciences*, 118(12), e2021474118.
- Yates, T. S., Ellis, C. T., Turk-Browne, N. B.** (2021). The promise of awake behaving infant fMRI as a deep measure of cognition. *Current Opinion in Behavioral Sciences*, 40, 5-11.
- Yates, T. S., Ellis, C. T., Turk-Browne, N. B.** (2021). Emergence and organization of adult brain function throughout child development. *NeuroImage*, 226, 117606.
- Rieck, B. A.\*, **Yates, T. S.\***, Bock, C., Borgwardt, K., Wolf, G., Turk-Browne, N.B., & Krishnaswamy, S. (2020). Uncovering the Topology of Time-Varying fMRI Data using Cubical Persistence. *Paper and spotlight presentation at Advances in Neural Information Processing System*.
- Ellis, C. T., Skalaban, L. J., **Yates, T. S.**, Bejjanki, V. R., Córdova, N. I., & Turk-Browne, N. B. (2020). How to read a baby's mind: Re-imagining fMRI for awake, behaving infants. *Nature Communications*, 11, 4523.

## Manuscripts

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- Yates, T. S., Yasuda, S., & Yildirim, I.** (preprint, under review). Temporal segmentation and 'look ahead' simulation: Physical events structure visual perception of intuitive physics.
- Yates, T. S., Fel, J., Choi, D., Trach, J. E., Behm, L., Ellis, C. T., & Turk-Browne, N. B.** (in prep). Hippocampal activity predicts memory-related looking preferences in older infants.
- Ongchoco, J. D. K., Koller W. N., Bronstein M. V., **Yates T. S.**, Cannon, T. D., & Scholl, B. J. (in prep). Out of sync in time and thought: Disordered event segmentation in paranoia.

## Posters and Presentations

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- Yates, T. S., Ellis, C.T., & Turk-Browne, N. B.** (2022, November). Influence of sleep/wake state on functional networks in the infant brain. Poster presented at the Society for Neuroscience.
- Fel, J., **Yates, T. S.**, Ellis, C.T., & Turk-Browne, N. B. (2022, November). Investigating episodic memory processes within the human infant hippocampus. Poster presented at the Society for Neuroscience.
- Choi, D., **Yates, T. S.**, Trach, J., Ellis, C.T., & Turk-Browne, N. B. (2022, November). Neural retrieval of infant memories during childhood. Poster presented at the Society for Neuroscience.
- Yates, T. S., & Turk-Browne, N. B.** (2022, July). Mechanisms of early cognition through awake, task-based brain imaging in infants. Talk presented during symposium on "Use of timely methods of cognitive neuroscience to understand infant cognition" at the International Congress of Infant Studies.
- Yates, T. S., Ellis, C. T., & Turk-Browne, N. B.** (2022, May). Neural selectivity for faces in human infants after pandemic lockdown. Talk presented at the annual meeting of the Vision Sciences Society.
- Yates, T. S., Ellis, C. T., & Turk-Browne, N. B.** (2021, November). Episodic encoding in the infant brain revealed through subsequent memory. Poster presented at the Society for Neuroscience.
- Ellis, C. T., **Yates, T. S.**, Skalaban, L. J., Bracher, A. J., & Turk-Browne, N. B. (2021, November). Exploring the hierarchical organization of the infant visual system with model-based representational similarity. Poster presented at the Society for Neuroscience.

- Yates, T. S.**, Skalaban, L. J., Ellis, C. T., Bracher, A. J., Baldassano, C., & Turk-Browne, N. B. (2021, August). How infants carve up continuous experience into neural events. Poster presented at the annual meeting of Flux society.
- Yates, T. S.**, Ellis, C. T., & Turk-Browne, N. B. (2021, May). Counting sheep: Perceptual narrowing of other-species faces in infant fMRI. Poster presented at the annual meeting of the Vision Sciences Society.
- Yasuda S., **Yates, T. S.**, & Yildirim, I. (2021, May). Physical event representations: Observers spontaneously impose discrete temporal structure in intuitive physical scene understanding. Poster presented at the annual meeting of the Vision Sciences Society.
- Ellis, C. T., **Yates, T. S.**, Arcaro, M. J., & Turk-Browne, N. B. (2021, May). Prediction of retinotopic organization in infant visual cortex from movies. Talk presented at the annual meeting of the Vision Sciences Society.
- Yates, T. S.**, Ongchoco, J. D. K., & Scholl, B. (2020, November). Rhythmic reproductions reveal how event segmentation structures temporal experience. Poster presented at the Object, Perception, Attention, and Memory Meeting.
- Rieck, B. A., **Yates, T. S.**, Wolf, G., Turk-Browne, N. B., & Krishnaswamy, S. (2020, July). Topological Methods for fMRI Data. Poster presented at the International conference on Machine Learning Workshop on Computational Biology.
- Yates, T. S.**, Ellis, C. T., & Turk-Browne, N. B. (2020, July). Counting sheep: Perceptual narrowing of other-species faces in infant fMRI. Poster presented at the International Congress of Infant Studies.
- Ellis, C. T., Skalaban, L. J., **Yates, T. S.**, & Turk-Browne, N. B. (2020, July). Engagement of frontoparietal cortex in attention behavior from fMRI with awake infants. Poster presented at the International Congress of Infant Studies.
- Ellis, C. T., Skalaban, L. J., **Yates, T. S.**, Bejjanki, V. R., Cordova, N. I., & Turk-Browne, N. B. (2020, July). Hippocampal evidence of statistical learning from fMRI with awake infants. Poster presented at the International Congress of Infant Studies.
- Ellis, C. T., **Yates, T. S.**, Skalaban, L. J., Bejjanki, V. R., Arcaro, M. J., & Turk-Browne, N. B. (2020, June). Retinotopic mapping with fMRI in awake, behaving infants. Poster presented at the annual meeting of the Vision Sciences Society.
- Yates, T. S.**, Skalaban, L. J., Ellis, C. T., & Turk-Browne, N. B. (2019, October). Neural approach for understanding event segmentation in early development. Poster presented at the Society for Neuroscience.
- Ellis, C. T., Skalaban, L. J., **Yates, T. S.**, & Turk-Browne, N. B. (2019, October). Attentional engagement of frontoparietal cortex in infant fMRI. Poster presented at the Society for Neuroscience.
- Ellis, C. T., Skalaban, L. J., **Yates, T. S.**, Bejjanki, V. R., Turek, J. S., & Turk-Browne, N. B. (2019, May). Decoding the contents of the developing visual system with fMRI in awake infants. Talk presented at the annual meeting of the Vision Sciences Society.
- Lauer J. E., **Yates T. S.**, Esposito A.G., & Bauer, P.J. (2017, October). Ethnicity moderates children's implicit gender stereotypes about cognitive skills and scholastic aptitude. Poster presented at the annual meeting of the Cognitive Development Society.
- Lauer J. E., **Yates T. S.**, Esposito A.G., & Bauer, P.J. (2018, March). Children's gender and ethnic biases regarding intelligence: An intersectional analysis. Paper presented at the annual meeting of the Society for Personality and Social Psychology.
- Yates T. S.**, Hogan, A., & Roberts, J.E. (2016, July). Physiological responses to social fear in infants in high-risk anxiety groups. Presentation at the annual Neurodevelopmental Disorders Lab Undergraduate Research Symposium.
- Yates T. S.**, Scherr J., & Roberts, J.E. (2015, July). Cardiovascular arousal levels for infants in high-risk autism groups. Presentation at the annual Neurodevelopmental Disorders Lab Undergraduate Research Symposium.

## Teaching Experience

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Spring 2021      Computational Methods in Human Neuroscience (Dr. Nick Turk-Browne), Teaching Fellow

Fall 2020	Developmental Psychology (Dr. Frank Keil), Teaching Fellow
Spring 2020	Research Methods in Human Neuroscience (Dr. Greg McCarthy), Teaching Fellow
Fall 2019	The Human Brain (Dr. Greg McCarthy), Teaching Fellow
Spring 2018	Advanced Neurophysiology Lab (Dr. Bob Wytenbach), Lab Assistant
2017-2018	Academic Coach for Emory Office of Undergraduate Education
2015-2016	Quantitative Theory and Methods (Fall 2015 - Fall 2016), Lab Assistant

## **Mentoring Experience**

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James Cross (Yale undergraduate and honors thesis student, January 2021-present)  
Now: Postgraduate research associate at Yale University

Jared Fel (Yale undergraduate and honors thesis student, January 2021-May 2023)  
Now: PhD student in clinical psychology at The New School

Asha Dukkupati (High school student, May 2021-December 2021)  
Now: Undergraduate student at University of Southern California

Winnie Chen (High school student, May 2021-August 2021)  
Now: Undergraduate student at Stanford University

Shannon Yasuda (Yale undergraduate and honors thesis student, January 2020 - May 2021)  
Now: PhD student in cognition and perception at New York University (PI: Moira Dillon)

Reagan Blohowiak (Yale undergraduate, July 2020-December 2020)

## **Service and Outreach**

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2022-2023 Diversity Committee Sneak Peek Program Mentor

2022-2023 Yale Wu Tsai Institute Student-Postdoc Committee Social Co-Chair

2021-2022 Emory University Alumni Interviewer

Fall 2021 fMRI Workshop Presenter/Organizer for CNCL lab at Yale

Summer 2021 Panelist for Yale Diversity Committee Sneak Peek Program

Spring 2021 Yale Brain Education Week Volunteer

2020-2022 Yale Undergraduate Research Journal Reviewer

2020-2022 Yale Psychology Department Colloquium Committee

2020-2021 Diversity Committee Sneak Peek Program Mentor

Spring 2019 New Haven Science Fair Judge

2019-2020 Emory University Alumni Interviewer

2019-2020 Yale Psychology Cognitive and Developmental Current Works Committee

2018-2019 Yale Psychology Department Interview Day Committee

## **Ad Hoc Reviewing**

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Current Opinions in Behavioral Sciences; The Journal of Neuroscience; Psychological Science; Developmental Science; Developmental Cognitive Neuroscience; NeuroImage; Journal of Experimental Child Psychology; Open Mind: Discoveries in Cognitive Science; Human Brain Mapping