


Stanford



Jason Yeatman

Assistant Professor of Pediatrics (Developmental-Behavioral Pediatrics) and of Education

 Curriculum Vitae available Online

CONTACT INFORMATION

- **Admin Support**

Rachel Kelly

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Bio

BIO

Dr. Jason Yeatman is an Assistant Professor in the Graduate School of Education and Division of Developmental and Behavioral Pediatrics at Stanford University.

Dr. Yeatman completed his PhD in Psychology at Stanford where he studied the neurobiology of literacy and developed new brain imaging methods for studying the relationship between brain plasticity and learning. After finishing his PhD, he took a faculty position at the University of Washington's Institute for Learning and Brain Sciences before returning to Stanford.

As the director of the Brain Development and Education Lab, the overarching goal of his research is to understand the mechanisms that underlie the process of learning to read, how these mechanisms differ in children with dyslexia, and to design literacy intervention programs that are effective across the wide spectrum of learning differences. His lab employs a collection of structural and functional neuroimaging measurements to study how a child's experience with reading instruction shapes the development of brain circuits that are specialized for this unique cognitive function.

ACADEMIC APPOINTMENTS

- Assistant Professor, Pediatrics
- Assistant Professor, Graduate School of Education
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

PROGRAM AFFILIATIONS

- Symbolic Systems Program

LINKS

- Brain Development & Education Lab: <https://www.brainandeducation.com/>

Research & Scholarship

RESEARCH INTERESTS

- Brain and Learning Sciences
- Child Development
- Data Sciences
- Early Childhood
- Literacy and Language
- Psychology
- Research Methods
- Special Education
- Technology and Education

Teaching

COURSES

2020-21

- Literacy Development and Instruction: EDUC 258 (Aut)
- Measuring Learning in the Brain: EDUC 464 (Spr)

2019-20

- Educational Neuroscience: EDUC 266 (Win)

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Manjari Narayan, Mahalakshmi Ramamurthy, Maya Yablonski

Doctoral (Program)

Madison Bunderson, Jamie Mitchell

Publications

PUBLICATIONS

- **Automaticity in the reading circuitry.** *Brain and language*
Joo, S. J., Tavabi, K., Caffarra, S., Yeatman, J. D.
2021; 214: 104906
- **White matter fascicles and cortical microstructure predict reading-related responses in human ventral temporal cortex.** *NeuroImage*
Grotheer, M., Yeatman, J., Grill-Spector, K.
2020: 117669
- **Bridging sensory and language theories of dyslexia: towards a multifactorial model.** *Developmental science*
O'Brien, G., Yeatman, J.
2020: e13039
- **Context effects on phoneme categorization in children with dyslexia.** *The Journal of the Acoustical Society of America*
O'Brien, G. E., Gijbels, L., Yeatman, J. D.
2020; 148 (4): 2209

- **Controlling for Participants' Viewing Distance in Large-Scale, Psychophysical Online Experiments Using a Virtual Chinrest.** *Scientific reports*
Li, Q., Joo, S. J., Yeatman, J. D., Reinecke, K.
2020; 10 (1): 904
- **Annotating digital text with phonemic cues to support decoding in struggling readers.** *PloS one*
Donnelly, P. M., Larson, K., Matskewich, T., Yeatman, J. D.
2020; 15 (12): e0243435
- **Evaluating arcuate fasciculus laterality measurements across dataset and tractography pipelines** *HUMAN BRAIN MAPPING*
Bain, J. S., Yeatman, J. D., Schurr, R., Rokem, A., Mezer, A. A.
2019; 40 (13): 3695–3711
- **The link between reading ability and visual spatial attention across development.** *Cortex; a journal devoted to the study of the nervous system and behavior*
White, A. L., Boynton, G. M., Yeatman, J. D.
2019; 121: 44–59
- **Intensive Summer Intervention Drives Linear Growth of Reading Skill in Struggling Readers** *FRONTIERS IN PSYCHOLOGY*
Donnelly, P. M., Huber, E., Yeatman, J. D.
2019; 10
- **You Can't Recognize Two Words Simultaneously.** *Trends in cognitive sciences*
White, A. L., Boynton, G. M., Yeatman, J. D.
2019
- **Categorical phoneme labeling in children with dyslexia does not depend on stimulus duration** *JOURNAL OF THE ACOUSTICAL SOCIETY OF AMERICA*
O'Brien, G. E., McCloy, D. R., Yeatman, J. D.
2019; 146 (1): 245–55
- **Parallel spatial channels converge at a bottleneck in anterior word-selective cortex** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
White, A. L., Palmer, J., Boynton, G. M., Yeatman, J. D.
2019; 116 (20): 10087–96
- **Combining Citizen Science and Deep Learning to Amplify Expertise in Neuroimaging** *FRONTIERS IN NEUROINFORMATICS*
Keshavan, A., Yeatman, J. D., Rokem, A.
2019; 13: 29
- **Applying microstructural models to understand the role of white matter in cognitive development**
Huber, E., Henriques, R., Owen, J. P., Rokem, A., Yeatman, J. D.
ELSEVIER SCI LTD.2019: 100624
- **Word selectivity in high-level visual cortex and reading skill**
Kubota, E. C., Joo, S., Huber, E., Yeatman, J. D.
ELSEVIER SCI LTD.2019: 100593
- **Intensive Summer Intervention Drives Linear Growth of Reading Skill in Struggling Readers.** *Frontiers in psychology*
Donnelly, P. M., Huber, E. n., Yeatman, J. D.
2019; 10: 1900
- **Reading ability and phoneme categorization** *SCIENTIFIC REPORTS*
O'Brien, G. E., McCloy, D. R., Kubota, E. C., Yeatman, J. D.
2018; 8: 16842
- **Evaluating g-ratio weighted changes in the corpus callosum as a function of age and sex**
Berman, S., West, K. L., Does, M. D., Yeatman, J. D., Mezer, A. A.
ACADEMIC PRESS INC ELSEVIER SCIENCE.2018: 304–13
- **Tractography optimization using quantitative T1 mapping in the human optic radiation** *NEUROIMAGE*
Schurr, R., Duan, Y., Norcia, A. M., Ogawa, S., Yeatman, J. D., Mezer, A. A.
2018; 181: 645–58

- **Rapid and widespread white matter plasticity during an intensive reading intervention** *NATURE COMMUNICATIONS*
Huber, E., Donnelly, P. M., Rokem, A., Yeatman, J. D.
2018; 9: 2260
- **Optimizing text for an individual's visual system: The contribution of visual crowding to reading difficulties** *CORTEX*
Joo, S., White, A. L., Strodman, D. J., Yeatman, J. D.
2018; 103: 291–301
- **A browser-based tool for visualization and analysis of diffusion MRI data** *NATURE COMMUNICATIONS*
Yeatman, J. D., Richie-Halford, A., Smith, J. K., Keshavan, A., Rokem, A.
2018; 9: 940
- **The challenge of mapping the human connectome based on diffusion tractography** *NATURE COMMUNICATIONS*
Maier-Hein, K. H., Neher, P. F., Houde, J., Cote, M., Garyfallidis, E., Zhong, J., Chamberland, M., Yeh, F., Lin, Y., Ji, Q., Reddick, W. E., Glass, J. O., Chen, et al
2017; 8: 1349
- **The causal relationship between dyslexia and motion perception reconsidered** *SCIENTIFIC REPORTS*
Joo, S., Donnelly, P. M., Yeatman, J. D.
2017; 7: 4185
- **Bottom-up and top-down computations in word-and face-selective cortex** *ELIFE*
Kay, K. N., Yeatman, J. D.
2017; 6
- **The corticospinal tract profile in amyotrophic lateral sclerosis** *HUMAN BRAIN MAPPING*
Sarica, A., Cerasa, A., Valentino, P., Yeatman, J., Trotta, M., Barone, S., Granata, A., Nistico, R., Perrotta, P., Pucci, F., Quattrone, A.
2017; 38 (2): 727–39
- **A fully computable model of stimulus-driven and top-down effects in high-level visual cortex**
Kay, K., Yeatman, J.
SAGE PUBLICATIONS LTD.2016: 72
- **Aging-Resilient Associations between the Arcuate Fasciculus and Vocabulary Knowledge: Microstructure or Morphology?** *JOURNAL OF NEUROSCIENCE*
Teubner-Rhodes, S., Vaden, K. I., Cute, S. L., Yeatman, J. D., Dougherty, R. F., Eckert, M. A.
2016; 36 (27): 7210-7222
- **A Major Human White Matter Pathway Between Dorsal and Ventral Visual Cortex.** *Cerebral cortex*
Takemura, H., Rokem, A., Winawer, J., Yeatman, J. D., Wandell, B. A., Pestilli, F.
2016; 26 (5): 2205-2214
- **ABNORMAL WHITE MATTER PROPERTIES IN ADOLESCENT GIRLS WITH ANOREXIA NERVOSA**
Golden, N. H., Travis, K., Feldman, H., Solomon, M., Nguyen, J., Mezer, A., Yeatman, J. D., Dougherty, R. F.
ELSEVIER SCIENCE INC.2016: S24–S25
- **The posterior arcuate fasciculus and the vertical occipital fasciculus.** *Cortex; a journal devoted to the study of the nervous system and behavior*
Weiner, K. S., Yeatman, J. D., Wandell, B. A.
2016
- **Temporal Tuning of Word- and Face-selective Cortex.** *Journal of cognitive neuroscience*
Yeatman, J. D., Norcia, A. M.
2016; 28 (11): 1820–27
- **The Structural Properties of Major White Matter Tracts in Strabismic Amblyopia.** *Investigative ophthalmology & visual science*
Duan, Y., Norcia, A. M., Yeatman, J. D., Mezer, A.
2015; 56 (9): 5152-5160
- **Evaluating the Accuracy of Diffusion MRI Models in White Matter** *PLOS ONE*
Rokem, A., Yeatman, J. D., Pestilli, F., Kay, K. N., Mezer, A., van der Walt, S., Wandell, B. A.
2015; 10 (4)

- **Abnormal white matter properties in adolescent girls with anorexia nervosa.** *NeuroImage. Clinical*
Travis, K. E., Golden, N. H., Feldman, H. M., Solomon, M., Nguyen, J., Mezer, A., Yeatman, J. D., Dougherty, R. F.
2015; 9: 648-659
- **Abnormal white matter properties in adolescent girls with anorexia nervosa** *NEUROIMAGE-CLINICAL*
Travis, K. E., Golden, N. H., Feldman, H. M., Solomon, M., Jenny Nguyen, J., Mezer, A., Yeatman, J. D., Dougherty, R. F.
2015; 9: 648-659
- **The vertical occipital fasciculus: A century of controversy resolved by in vivo measurements** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Yeatman, J. D., Weiner, K. S., Pestilli, F., Rokem, A., Mezer, A., Wandell, B. A.
2014; 111 (48): E5214-E5223
- **Speed discrimination predicts word but not pseudo-word reading rate in adults and children** *BRAIN AND LANGUAGE*
Main, K. L., Pestilli, F., Mezer, A., Yeatman, J., Martin, R., Phipps, S., Wandell, B.
2014; 138: 27-37
- **Evaluation and statistical inference for human connectomes** *NATURE METHODS*
Pestilli, F., Yeatman, J. D., Rokem, A., Kay, K. N., Wandell, B. A.
2014; 11 (10): 1058-1063
- **White Matter Consequences of Retinal Receptor and Ganglion Cell Damage** *INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE*
Ogawa, S., Takemura, H., Horiguchi, H., Terao, M., Haji, T., Pestilli, F., Yeatman, J. D., Tsuneoka, H., Wandell, B. A., Masuda, Y.
2014; 55 (10)
- **Lifespan maturation and degeneration of human brain white matter** *NATURE COMMUNICATIONS*
Yeatman, J. D., Wandell, B. A., Mezer, A. A.
2014; 5
- **Disease in the photoreceptors (JMD) or retinal ganglion cells (LHON) affects optic tract and radiation tissue properties**
Ogawa, S., Takemura, H., Horiguchi, H., Terao, M., Haji, T., Pestilli, F., Yeatman, J. D., Tsuneoka, H., Wandell, B. A., Masuda, Y.
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2014
- **Diffusion properties of major white matter tracts in young, typically developing children** *NEUROIMAGE*
Johnson, R. T., Yeatman, J. D., Wandell, B. A., Buonocore, M. H., Amaral, D. G., Nordahl, C. W.
2014; 88: 143-154
- **Lifespan maturation and degeneration of human brain white matter.** *Nature communications*
Yeatman, J. D., Wandell, B. A., Mezer, A. A.
2014; 5: 4932-?
- **Developmental Changes within White Matter Tracts of Healthy Children Age 9 to 16 Years Old**
Yeatman, J. D., Myall, N. J., Dougherty, R. F., Wandell, B. A., Feldman, H. M.
LIPPINCOTT WILLIAMS & WILKINS.2013: S5
- **Anatomy of the visual word form area: Adjacent cortical circuits and long-range white matter connections.** *Brain and language*
Yeatman, J. D., Rauschecker, A. M., Wandell, B. A.
2013; 125 (2): 146-155
- **Biological development of reading circuits.** *Current opinion in neurobiology*
Wandell, B. A., Yeatman, J. D.
2013; 23 (2): 261-268
- **Effects of early language, speech, and cognition on later reading: a mediation analysis.** *Frontiers in psychology*
Durand, V. N., Loe, I. M., Yeatman, J. D., Feldman, H. M.
2013; 4: 586-?
- **Neural plasticity after pre-linguistic injury to the arcuate and superior longitudinal fasciculi** *CORTEX*
Yeatman, J. D., Feldman, H. M.
2013; 49 (1): 301-311

- **Language and reading skills in school-aged children and adolescents born preterm are associated with white matter properties on diffusion tensor imaging** *NEUROPSYCHOLOGIA*
Feldman, H. M., Lee, E. S., Yeatman, J. D., Yeom, K. W.
2012; 50 (14): 3348-3362
- **Development of white matter and reading skills** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Yeatman, J. D., Dougherty, R. F., Ben-Shachar, M., Wandell, B. A.
2012; 109 (44): E3045-E3053
- **Differences in neural activation between preterm and full term born adolescents on a sentence comprehension task: Implications for educational accommodations** *DEVELOPMENTAL COGNITIVE NEUROSCIENCE*
Barde, L. H., Yeatman, J. D., Lee, E. S., Glover, G., Feldman, H. M.
2012; 2: S114-S128
- **Learning to See Words** *ANNUAL REVIEW OF PSYCHOLOGY, VOL 63*
Wandell, B. A., Rauschecker, A. M., Yeatman, J. D.
2012; 63: 31-53
- **Anatomical Properties of the Arcuate Fasciculus Predict Phonological and Reading Skills in Children** *JOURNAL OF COGNITIVE NEUROSCIENCE*
Yeatman, J. D., Dougherty, R. F., Rykhlevskaia, E., Sherbondy, A. J., Deutsch, G. K., Wandell, B. A., Ben-Shachar, M.
2011; 23 (11): 3304-3317
- **Specific language and reading skills in school-aged children and adolescents are associated with prematurity after controlling for IQ** *NEUROPSYCHOLOGIA*
Lee, E. S., Yeatman, J. D., Luna, B., Feldman, H. M.
2011; 49 (5): 906-913
- **Individual differences in auditory sentence comprehension in children: An exploratory event-related functional magnetic resonance imaging investigation** *BRAIN AND LANGUAGE*
Yeatman, J. D., Ben-Shachar, M., Glover, G. H., Feldman, H. M.
2010; 114 (2): 72-79
- **Reading performance correlates with white-matter properties in preterm and term children** *DEVELOPMENTAL MEDICINE AND CHILD NEUROLOGY*
Andrews, J. S., Ben-Shachar, M., Yeatman, J. D., Flom, L. L., Luna, B., Feldman, H. M.
2010; 52 (6): E94-E100
- **Diffusion Tensor Imaging: A Review for Pediatric Researchers and Clinicians** *JOURNAL OF DEVELOPMENTAL AND BEHAVIORAL PEDIATRICS*
Feldman, H. M., Yeatman, J. D., Lee, E. S., Barde, L. H., Gaman-Bean, S.
2010; 31 (4): 346-356
- **Using Diffusion Tensor Imaging and Fiber Tracking to Characterize Diffuse Perinatal White Matter Injury: A Case Report** *JOURNAL OF CHILD NEUROLOGY*
Yeatman, J. D., Ben-Shachar, M., Bammer, R., Feldman, H. M.
2009; 24 (7): 795-800