Alyssa J. Kersey

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EDUCATION

2018 (expected)	**Ph.D., University of Rochester** (Rochester, NY) Brain & Cognitive Sciences Primary Advisor: Jessica Cantlon
2016	**M.A., University of Rochester** (Rochester, NY) Brain & Cognitive Sciences Committee: Jessica Cantlon, Brad Mahon, Dick Aslin
2013	**B.S., Highest Distinction & Honors, Indiana University** (Bloomington, IN) Psychology; Neuroscience Certificate Honors Thesis: *"The role of motor experience in the development of a visual network for cursive letters in 6- to 7-year-old children."* Committee: Karin James (Advisor), Sharlene Newman, Dan Kennedy
2011	**Study Abroad, University of Salamanca** Cursos Internacionales Study Abroad Summer Program

RESEARCH EXPERIENCE

2013 – Present	**Graduate Research Assistant, University of Rochester** Concepts, Objects, and Actions Lab (PIs: Jessica Cantlon and Brad Mahon)
2009 – 2013	**Undergraduate Research Assistant, Indiana University** Cognition and Action Neuroimaging Lab (PI: Karin James)
2009 – 2013	**STARS Scholar, Indiana University** Science, Technology, & Research Scholars Program (Director: Preston Garraghty)

AWARDS, SCHOLARSHIPS, AND RECOGNITION

2018	Graduate Student Award, Cognitive Neuroscience Society
2017	Trainee Professional Development Award, Society for Neuroscience
2016	Early Career Award, Flux Congress & Jacobs Foundation
2016	Conference Travel Award, Graduate Student Association, University of Rochester
2015 – 2016	Donald M. and Janet C. Bernard Fellowship for PhD Students in Engineering and Science, University of Rochester
2015	NIMH Summer Institute in Cognitive Neuroscience Fellowship, UCSB
2014 – 2017	National Science Foundation (NSF) Graduate Research Fellowship
2013	Outstanding Honors Thesis Award, Psychological & Brain Sciences, IU
2013	James A. Dinsmoor Award for Outstanding Undergraduate Research, Psychological & Brain Sciences, IU
2013	College of Arts & Sciences Excellence Award, STARS Symposium, IU
2012	Phi Beta Kappa
2012	STARS Summer Stipend, IU
2011	Edward L. Hutton International Experience Program Scholarship, IU
2011	Psi Chi
2010	Phi Eta Sigma/Alpha Lambda Delta Honorary Societies
2010 – 2013	Indiana University Founders Scholar
2009 – 2013	Indiana University Dean's List
2009 – 2013	Indiana University Distinction Scholarship

2009 – 2013 Indiana University Hutton Honors College Merit Scholarship
2009 – 2013 Indiana University Hutton Honors College

PUBLICATIONS

James, K. H. & **Kersey, A. J.** (2018). Dorsal stream function in the young child: An fMRI investigation of visually-guided action. *Developmental Science. 21* (2), e12546. doi: 10.1111/desc.12546

Kersey, A. J. & Cantlon, J. F. (2017). Neural tuning to numerosity relates to perceptual tuning in 3- to 6-year-old children. *Journal of Neuroscience. 37* (3), 512-522. doi: 10.1523/JNEUROSCI.0065-16.2017

Kersey, A. J. & Cantlon, J. F. (2017). Primitive concepts of number and the developing human brain. *Language Learning and Development, 13* (2), 191-214. doi: 10.1080/15475441.2016.1264878

Kersey, A. J. & Emberson, L. L. (2017). Tracing trajectories of audiovisual learning in the infant brain. *Developmental Science. 20* (6), e12480. doi: 10.1111/desc.12480

Kersey, A. J., Clark, T. S., Lussier, C. A., Mahon, B. Z., & Cantlon, J. F. (2016). Development of tool representations in the dorsal and ventral visual object processing pathways. *Cerebral Cortex. 26* (7), 3135-3145. doi: 10.1093/cercor/bhv140

Kersey, A. J. & James, K. H. (2013). Brain activation patterns resulting from learning letter forms through active self-production and passive observation in young children. *Front. Psychol.* 4:567 doi: 10.3389/fpsyg.2013.00567

MANUSCRIPTS IN PREPARATION AND UNDER REVIEW

Kersey, A. J., Braham, E. J., Csumitta, K. D., Libertus, M. E., & Cantlon, J. F. (under review). No intrinsic gender differences in children's earliest numerical abilities.

Kersey, A. J., Wakim, K., Li, R., & Cantlon, J. F. (submitted). Developing, adult-like, and unique functions of the child's brain in reading and mathematics.

Kersey, A. J. & Cantlon, J. F. (in preparation). Children's neural representations of count words emerge from numerosity representations in parietal cortex.

RESEARCH TALKS

* denotes undergraduate mentee

Kersey, A. J. & Cantlon, J. F. (2017). Children's neural representations of count words emerge from numerosity representations in parietal cortex. Presented at the Society for Neuroscience Annual Meeting, Nanosymposium on Cognitive Development and Numerical Cognition, Washington D.C.

Kersey, A. J. (2017). Developmental continuity in the neural representation of numerical sets, words, and symbols. Presented at the Department of Brain & Cognitive Sciences Lunch Talk Series, University of Rochester, Rochester, NY.

Kersey, A. J, Wakim, K., Li, R., & Cantlon, J. F. (2016). Neural patterns of reading and mathematics development from controlled versus naturalistic stimuli. Presented at the Flux Congress Annual Meeting, Science of Learning Symposium, St. Louis, MO.
***Only 3 abstracts selected for symposium talk presentations*

Kersey, A. J. (2016). Neural tuning to numerosity in 3- to 6-year-old children. Presented at the Department of Brain & Cognitive Sciences Lunch Talk Series, University of Rochester, Rochester, NY.

*Csumitta, K., **Kersey, A. J,** & Cantlon, J. F. (2016). Origins of gender differences in mathematics. Presented by K. Csumitta at the University of Rochester Undergraduate Research Exposition, Rochester, NY.

*Adulley, K., **Kersey, A. J.,** & Cantlon, J. F. (2016). Gender differences in numerical processing in young children. Presented by K. Adulley at the 17th Annual National McNair Undergraduate Research Conference. University of Maryland, College Park, Maryland.

Kersey, A. J. & Cantlon, J. F. (2015). Neural tuning to numerosity in 3- to 6-year-old children predicts numerical development. Presented at the Cognitive Development Society Biennial Meeting, Columbus, OH.
***Only 20 selected oral paper presentations*

James, K.H. & **Kersey, A.** (2011). Dorsal stream function in the 4-6 year old child: Assessing the neural correlates of the posting task using fMRI. Presented by K. H. James at the Society for Research in Child Development. Montreal, PQ.

POSTER PRESENTATIONS

* denotes undergraduate mentee

Kersey, A. J., *Csumitta, K. D., & Cantlon, J. F. (2018) No gender differences in neural processing of mathematics in early childhood. To be presented at the Cognitive Neuroscience Society Annual Meeting, Boston, MA.
***Selected for a Graduate Student Award Poster Presentation*

Kersey, A. J. & Cantlon, J. F. (2017). Functional overlap between numerosity and count word representations in the developing brain. Presented at the Cognitive Development Society Biennial Meeting, Portland, OR.

*Csumitta, K. D., **Kersey, A. J,** Libertus, M., & Cantlon, J. F. (2017). No gender differences in children's core numerical processing abilities. Presented by K. D. Csumitta at the University of Rochester Undergraduate Research Exposition, Rochester, NY.

Kersey, A. J. & Cantlon, J. F. (2017). Neural representations of numerosity support the acquisition of counting in preschool children. Presented at the Cognitive Neuroscience Society Annual Meeting, San Francisco, CA.

Emberson, L. L. & **Kersey, A. J.** (2016). Tracing trajectories of audiovisual learning in the infant brain. Presented by L. L. Emberson at the Flux Congress Annual Meeting, St. Louis, MO.

Kersey, A. J. & Cantlon, J. F. (2016). Functional networks of counting acquisition in preschool children. Presented at the Cognitive Neuroscience Society Annual Meeting, New York, NY.

*Yurkovic, J. R., **Kersey, A. J.,** & Cantlon, J. F. (2015). Dissociable contributions of working memory and numerical cognition to math achievement in 3- to 5-year-old children. Presented by J. R. Yurkovic at the University of Rochester Undergraduate Research Exposition, Rochester, NY.

Kersey, A. J. & Cantlon, J. F. (2015). Distinct neural circuitry underlying numerical development in 3- to 6-year-old children. Presented at the Cognitive Neuroscience Society Annual Meeting, San Francisco, CA.

Kersey, A. J. & James, K. H. (2013). The neural mechanisms underlying handwriting: Effects of sensorimotor experience. Presented at the UCLA Psychology Undergraduate Research Conference, Los Angeles, CA.

Kersey, A. J. & James, K. H. (2013). The neural mechanisms underlying handwriting: Effects of sensorimotor experience. Presented at the J.R. Kantor Undergraduate Banquet, Bloomington, IN.

Kersey, A. J. & James, K. H. (2013). The neural mechanisms underlying handwriting: Effects of sensorimotor experience. Presented at the STARS Research Symposium, Bloomington, IN.

Kersey, A. J. & James K. H. (2012). The role of motor experience in the development of distinct visual networks for cursive letters in 6-7 year olds. Presented at the STARS Fall Reception, Bloomington, IN.

Kersey, A. J. & James K. H. (2012). The role of motor experience in the development of distinct visual networks for cursive letters in 6-7 year olds. Presented at the STARS Research Symposium, Bloomington, IN.

James, K.H. & **Kersey, A. J.** (2011). Dorsal stream function in 4-6 year old children: Assessing the neural correlates of the 'posting' task using fMRI. Presented at the Hutton Honors College Research Symposium & Fair, Bloomington, IN.

James, K.H. & **Kersey, A. J.** (2011). Dorsal stream function in 4-6 year old children: Assessing the neural correlates of the 'posting' task using fMRI. Presented at the STARS Research Symposium, Bloomington, IN.

James, K.H. & **Kersey, A. J.** (2011). Dorsal stream function in 4-6 year old children: Assessing the neural correlates of the 'posting' task using fMRI. Presented at the 13th Annual Women in Science Research Conference, Bloomington, IN.

TEACHING EXPERIENCE

Guest Lectures:

Spring 2018	*"Concept acquisition in the developing brain."* Development of Mind and Brain, University of Rochester (C. Kidd)
Fall 2017	*Workshop on analyzing fMRI data in BrainVoyager* Lab in Cognitive Neuroscience, University of Rochester (B. Mahon)
Summer 2017	*"Thinking and language"* Introduction to Psychology, University of Rochester (J. Coe)
Spring 2017	*"A developmental cognitive neuroscience approach to studying numerical cognition."* Cognitive Neuroscience Graduate Seminar, University of Rochester (R. Raizada)
Spring 2016	**"***fMRI as a tool for exploring cognitive development."* Language Acquisition, University of Rochester (C. Kumurada)
Fall 2015	*"Working with data: Descriptive statistics in Excel and R."* Undergraduate Research in Cognitive Science, UR (J. Cantlon & R. Haefner)
Fall 2015	*"Neural tuning to numerosity in 3- to 6-year-old children"* Lab in Cognitive Neuroscience, University of Rochester (B. Mahon & R. Miller)
Fall 2015	*"Data Measurement: The subtraction method and stimulus programming."* Undergraduate Research in Cognitive Science, UR (J. Cantlon & R. Haefner)
Spring 2015	*"fMRI as a tool for exploring cognitive development."* Language Acquisition, University of Rochester (C. Kumurada) **Top ranked guest lecture
Fall 2012	*"Considerations and applications of fMRI studies with children."* Introductory Psychology I, Indiana University (J. Craig)

Graduate Teaching Assistant (University of Rochester):

Spring 2017	Development of Mind and Brain (C. Kidd)

Fall 2015	Neural Foundations of Behavior (Taught weekly recitation sessions, K. Davis)
Spring 2015	Neural Foundations of Behavior (Taught weekly recitation sessions, K. Davis)

Undergraduate Teaching Assistant (Indiana University):

Fall 2012	Introductory Psychology I (J. Craig)
Spring 2012	Assistant to the Introductory Psychology Coordinator
Fall 2011	General Introductory Psychology, Honors (E. M. Wakefield)
Spring 2011	Introductory Psychology I (P. Summers)
Spring 2011	Undergraduate Teaching Internship Course

UNDERGRADUATE MENTORSHIP

Students Supervised (University of Rochester):

2018 – present	Ananya Chauhan
2017 – present	Joseph Fong (Independent Study)
2017 – present	Amanda O'Donnell
2017 – present	Anaclare Sullivan
2016 – 2017	Rebecca Lawrence
2016 – present	Adina Levitt
2016 (fall)	CAOs Lab Undergraduate Neuroimaging Journal Club (5 undergraduates)
2016 (summer)	Jessica Occhiogrosso
2016 (summer)	Hetince Zhao (Independent Study)
2015, 2017	Kelvin Adulley (McNair Summer Scholar)
2015 – 2017	Kelsey Csumitta (Honors Thesis, Independent Study)
2015 – present	Gillian Schwartz
2014 – 2015	Matt Mullen (Honors Thesis)
2014 – 2015	Julia Yurkovic (Honors Thesis)

Mentored Honors Theses & Post-Grad Placement:

K. Csumitta (2017)	*"No gender differences in children's core numerical processing abilities."* Post-Grad: NIMH Research Fellow
M. Mullen (2015)	*"Spatial and numerical processing in STEM Experts."* Post-Grad: PhD program in Neuroscience, Northwestern University
J. Yurkovic (2015)	*"The dissociable contributions of working memory and numerical cognition to math achievement in 3- to 5-year-old children."* Post-Grad: Emory Research Fellowship at Marcus Autism Center

Mentee Research Awards:

2017	Postbaccalaureate Intramural Research Training Award (NIH Office of Intramural Training & Education): Kelsey Csumitta
2017	National Conference on Undergraduate Research Invited Talk (Council on Undergraduate Research): Kelsey Csumitta
2016	Catherine Block Memorial Award for Scientific Achievement (University of Rochester): Kelsey Csumitta
2016	Dean's Choice Award for Undergraduate Research (University of Rochester): Kelsey Csumitta
2016	17th Annual National McNair Undergraduate Research Conference Invited Talk (McNair Scholars Research Program): Kelvin Adulley
2015	Bilski-Mayer Summer Fellowship for Independent Study (Brain & Cognitive Sciences, University of Rochester): Kelsey Csumitta

2015	Donald J. Cohen Fellowship in Developmental Social Neuroscience (Marcus Autism Center, Atlanta, GA): Julia Yurkovic
2015	Professor's Choice Award for Undergraduate Research (University of Rochester): Julia Yurkovic

SCIENCE OUTREACH

2015 – Present	**Brain Awareness Campaign Organizing Committee** Society for Neuroscience, University of Rochester
2014 – Present	**Brain Awareness Campaign Student Representative** Society for Neuroscience, University of Rochester
2014 – Present	**Exhibits Volunteer** Rochester Museum & Science Center, Rochester, NY
2013	**Child-Scientist Activity Week Staff** Department of Psychological and Brain Sciences, Indiana University
2012 – 2013	**Volunteer** WonderLab Museum of Science, Health, & Technology, Bloomington, IN
2012 – 2013	**Lab Representative** Developmental Psychology Farmer's Market Booth**,** Bloomington, IN
2011	**Department of Psychological & Brain Sciences Student Ambassador** Girl Scout Math and Science Day, Bloomington, IN
2010	**Volunteer** Field Museum, Crown Family PlayLab, Chicago, IL

ACADEMIC AND PROFESSIONAL SERVICE

Ad hoc Manuscript Reviewer: *Cerebral Cortex*, *Cognitive Neuropsychology*, *Frontiers in Psychology*

Spring 2017	**Student Organizer of Prospective Graduate Student Interview Weekend** Department of Brain & Cognitive Sciences, University of Rochester
2016 – 2017	**Committee for Workplace Behavior** Department of Brain & Cognitive Sciences, University of Rochester
Spring 2016	**Student Co-Organizer of Prospective Graduate Student Interview Weekend** Department of Brain & Cognitive Sciences, University of Rochester
Spring 2016	**Senior Seminar Panel on Graduate School Panelist** Department of Brain & Cognitive Sciences, University of Rochester
Spring 2015	**APS Student Research Award Reviewer** Association for Psychological Science
2014 – 2015	**Conference Travel Funding Application Reviewer** Graduate Student Association, University of Rochester
2012 – 2013	**Psi Chi Treasurer and Website Manager** Psi Chi Psychology Honorary Society Chapter at Indiana University
Spring 2012	**Symposium Speaker Selection Committee** Science, Technology, and Research Scholars, Indiana University
Spring 2012	**Honors Research Symposium Steering Committee** Hutton Honors College, Indiana University

Spring 2012 **Honors Research Symposium Undergraduate Moderator**
Hutton Honors College, Indiana University

SKILLS AND CERTIFICATIONS

Software: BrainVoyager, MATLAB, Psychtoolbox, BVQXtools, R, SuperLab, ELAN, Adobe Illustrator, Adobe Photoshop, Adobe Dreamweaver, Microsoft Office
Hardware: Comfortable with Mac and Windows
Certifications: MRI Safety Certified
Languages: Conversational Spanish