

**CURRICULUM VITAE**

Marlene Behrmann (Cohen)  
 Department of Ophthalmology, University of Pittsburgh  
 Carnegie Mellon University, Pittsburgh

**A. BIOGRAPHICAL INFORMATION**1. Personal

Date of birth: April 14, 1959 (Johannesburg, South Africa)  
 Citizenship: South Africa; Canada; United States of America  
 Address: Department of Ophthalmology  
 University of Pittsburgh  
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2. Degrees

- 1991 **Ph.D. (Psychology)** University of Toronto. *Advisor:* Dr. M. Moscovitch.  
*Thesis title:* Attention and word recognition in neglect dyslexia: Evidence from brain-damaged and normal subjects and from a computational model.
- 1984 **British Council Fellowship:** Birkbeck College, University of London. *Advisor:* Dr. M. Coltheart.
- 1984 **M.A. (Speech Pathology)** cum laude, University of Witwatersrand, Johannesburg. *Advisor:* Dr C. Penn.  
*Dissertation title:* A neurolinguistic approach to reading problems in aphasia.
- 1981 **B.A. (Speech and Hearing Therapy)** cum laude, University of Witwatersrand, Johannesburg.

3. Employment and Teaching

- 2022 Professor, Ophthalmology, University of Pittsburgh Medical School
- 2022 Emeritus Professor, Carnegie Mellon University
- 2018 Courtesy appointment, Biomedical Engineering, Carnegie Mellon University
- 2016 University Professor, Carnegie Mellon University and Center for the Neural Basis of Cognition.
- 2014-15 CMU Director of the Center for the Neural Basis of Cognition
- 2014 Chair: Thomas S. Baker University Professor of Cognitive Neuroscience
- 2007 Professor, Dept of Psychology, Carnegie Mellon University and Center for the Neural Basis of Cognition.
- 2006 Professor, Dept of Psychology, University of Toronto; Canada Research Chair (Tier 1).
- 2002 Professor, Dept of Psychology, Carnegie Mellon University.
- 2000-1 Visiting Professor (sabbatical), Weizmann Institute of Science, Israel
- 1998 Associate Professor (with tenure), Department of Psychology, Carnegie Mellon University.
- 1997-8 Associate Professor (without tenure), Department Psychology, Carnegie Mellon University.
- 1997- Adjunct Associate Professor, Dept. of Neuroscience and Dept. of Communication Disorders, U. Pitt.
- 1995 Affiliated Faculty, Center for the Neural Basis of Cognition (joint CMU/Pitt).
- 1993-7 Assistant Professor, Department of Psychology, Carnegie Mellon University.
- 1994-7 Assistant Professor, Adjunct appointment, Department of Communication Science and Disorders, U. Pitt.
- 1991-3 Assistant Professor, Departments of Psychology and Medicine (Neurology), U. of Toronto.
- 1990-3 Staff Scientist, Rotman Research Institute of Baycrest Centre, Toronto.
- 1986-7 Research assistant Dr S. E. Black, Cognitive Neurology, Sunnybrook Health Center.
- 1986 Lecturer, Department of Speech Path. & Audiology, U. of the Witwatersrand, Johannesburg.
- 1983-5 Clinical supervisor, Department of Speech Path. and Audiology, University of Witwatersrand.

1982 Speech Pathologist in practice.

#### 4. Honors

- 2023 52nd Sir Frederic Bartlett Lecture, British Experimental Psychology Society.
- 2020 Vision Sciences Society's Davida Teller Award exceptional scientific achievements, commitment to equity, and strong history of mentoring.
- 2020 Fred Kavli Distinguished Career Contributions in Cognitive Neuroscience Award from the Cognitive Neuroscience Society.
- 2019 Member, American Academy of Arts and Sciences (induction November, Boston)
- 2019 Rita G. Rudel/Lucy G. Moses Award and Lecture, Columbia University New York
- 2018 William E. Brown Outstanding MSTP Mentor Award, U. of Pittsburgh and Carnegie Mellon U.
- 2017 Faculty Member Award for Neuroscience, F1000 (<https://blog.f1000.com/2018/03/07/2017-f1000prime-awards-winners/>)
- 2017 Inspiring Women in Science Award, Brown University
- 2016 Ladies Hospital Aid Society Pittsburgh, Distinguished Educator award
- 2016 Certificate for highly cited research, Vision Research.
- 2015 Member, National Academy of Sciences
- 2014 Fellow, Cognitive Science Society.
- 2014 Certificate for Excellence in reviewing, Elsevier Press (Neuropsychologia)
- 2012 Elected Fellow of Eastern Psychological Association.
- 2010 Academic expert for GoCognitive Video series ([www.gocognitive.com](http://www.gocognitive.com); <http://vimeo.com/8697643>)
- 2008 Member, Society of Experimental Psychologists (Prestigious academic society)
- 2006 Recipient, Justine and Yves Sergent Award, University of Montreal
- 2006 Fellow, American Psychological Society
- 2004 Member of Western delegation in residence with Dalai Lama (Multiple day Scientific Exchange between Eastern monks and Western scientists)
- 2001 APA Distinguished Scientific Award for Early Career Contributions to Behavioral and Cognitive Neuroscience
- 2000-01 Weston Visiting Professorship, Dept. Computer Science and Applied Mathematics, Weizmann Institute, Israel
- 2000-01 James McKeen Cattell award for sabbatical support
- 1999 Presidential Early Career Award in Science & Engineering (PECASE).
- 1998 Early career award in Neuropsychology (Div. 40), American Psychological Foundation; Finalist, McDonnell Centennial Fellowship Award.
- 1995-00 National Institutes of Mental Health, FIRST award.
- 1993-98 Natural Sciences and Engineering Research Council Women Faculty Award, Canada declined).
- 1992-97 Medical Research Council of Canada Scholarship. Voluntarily terminated 1994.
- 1987 Ontario Ministry of Health, Research Personnel Development Scholarship.
- 1987-98 Natural Sciences and Engineering Research Council Scholarship for Postgraduate Studies.
- 1995 Ontario, Speech Language and Hearing Assoc. Founders' Award for best paper at OSLA Convention.
- 1984-85 Isie Smuts Fellowship Award awarded by the South African Assoc. of University Women (Nov '84- March '85).
- 1984-85 British Council scholarship to further academic studies in Britain.
- 1982 Most distinguished woman graduate of the year, University of the Witwatersrand; Pierre de V Pienaar Prize for top graduate in B.A. (Speech and Hearing Therapy).
- 1982 Philips' Medal for the most outstanding graduate in Speech Pathology and Audiology.

#### 5. Membership and professional affiliations

International Neuropsychology Symposium  
 Society for Neurosciences  
 Psychonomic Society  
 American Psychological Association  
 American Psychological Society  
 Vision Sciences Society  
 Society for Experimental Psychologists  
 Member, Advisory Board, Center for Brain Sciences, Hebrew University, Jerusalem, Israel.  
 Member, Rothschild Fellowship Committee for Brain, Mind and Language, Israel.

## 6. Editorial activities

Associate editor, Current Directions in Psychological Science

Editorial board membership: *Open Minds*; *Journal of Cognitive Neuroscience*; *Cognitive Neuropsychology*; *Cortex*; *Annual Review of Psychology*; *Annual Review of Vision*

F1000 Faculty member, <http://f1000.com/thefaculty/member/1668422047137071>.

Ad hoc reviewer of research grant applications: *Medical Research Council of Canada*; *Alzheimer Society of Canada*; *NIH*; *NSF*; *Wellcome Trust*; *Israel Science Foundation*

Ad hoc reviewer of submitted manuscripts: *Brain*; *Cognitive, Affective and Behavioral Neuroscience*; *Cognitive Neuropsychology*; *Cognitive Psychology*; *Cortex*; *Journal of Clinical and Experimental Neuropsychology*; *Journal of Cognitive Neuroscience*; *Journal of Experimental Psychology (HPP, LMC)*; *Memory and Cognition*; *Nature*; *Nature Neuroscience*; *Neuron*; *Neuropsychologia*; *Perception and Psychophysics*; *Psychonomic Bulletin and Review*; *Quarterly Journal of Experimental Psychology*; *Science*; *Vision Research*

## 7. Other professional activities (last five years)

Ongoing Study sections NIH and NSF

2022 NIMH, Board of Scientific Counselors

2020- Member, National Academy of Sciences, Transient Nominating Group member, section representative

2019- Member, Rothschild Fellowship selection committee

2018 Ad hoc reviewer, NIH Board of Scientific Counsellors

2018 Chair, selection committee for the Troland Award, National Academy of Sciences

2017-20 SFN's Achievement Awards Selection Committee

2016- Member, membership committee NAS Section 52

2016- Member, National Academy of Sciences, Sackler Award Committee and Atkinson Award Committee

2011-14 Program committee, Society for Neuroscience

2010-15 Member, Committee to award Rumelhart International prize

2015- External Advisory Board for the Center for Mind & Brain, University of California, Davis

2016- Steering committee, Edmond and Lily Safra Center for Brain Sciences at Hebrew U., Jerusalem

2016- External advisory board, VISTA Institute, York University, Toronto

## **B. CURRENT RESEARCH AWARDS**

(pending awards not included)

2022-2025 PI: **M. Behrmann**. National Institutes of Health (NEI).

Title: Reorganization of visual function in patients with posterior cortical research: Selectivity and plasticity. \$1,389,972

2021-2024 Co-PI: **M. Behrmann** and D. Plaut

Title: Hemispheric and topographic neural organization of high-level visual representations. National Science Foundation \$750,205.00.

2019-2023: PI: J. Gross. Training faculty **M. Behrmann**.

Title: "Interdisciplinary vision sciences training program". T32, National Eye Institute.

2020

PI: **M. Behrmann**. Simon Innovation Fund, Carnegie Mellon University.

**Patent** (provisional; final pending): Silence localization in brain using non-invasive recordings. Grover, P., Chamanzar, A. and **Behrmann, M**.

**Start-up**: Precision Neuroscopics (with Shawn Kelly, Pulkit Grover, Jeff Weldon, Etienne Arnelle). Received Phase II NSF funding.

## **C. PUBLICATIONS**

### 1a. Refereed Journals: published or in press

For all papers, see <https://www.ncbi.nlm.nih.gov/myncbi/marlene.behrmann.1/bibliography/public/>

262. Nischal, R. and **Behrmann, M.** (2023). Hemispheric lateralization of word recognition revealed over development using a measure of inversion sensitivity, *Developmental Science*, *in press*.

261. Ayzenberg, V. and **Behrmann, M.** (2023). An expanded neural framework for shape perception. *TICS*, *in press*. <https://doi.org/10.1016/j.tics.2022.12.001>

260. Ayzenberg, V., Simmons, C. and **Behrmann, M.** (2023). Temporal asymmetries and interactions between dorsal to ventral visual pathway during object recognition, *Cerebral Cortex Communication*, *in press*.

259. Blauch, N., **Behrmann, M.** and Plaut, D. C. (2023). Computational models of topographic selectivity as a window into degrees of specialization, *Cognitive Neuropsychology*, *in press*.

258. Ayzenberg, V. and **Behrmann, M.** (2022). Does the ventral visual pathway compute shape? *TICS*, <https://doi.org/10.1016/j.tics.2022.09.019>

257. Granovetter, M.C., Etensohn, L., Robert, S and **Behrmann, M.** (2022). With Childhood Hemispherectomy, One Hemisphere Can Support--But is Suboptimal for--Word and Face Recognition, *PNAS*, 119(44):e2212936119. doi: 10.1073/pnas.2212936119. <https://biorxiv.org/cgi/content/short/2020.11.06.371823v1>

256. Haigh, S. M., Van Key, L., Eack, S. M., Leitman, D. I., Salisbury, D.F. \* Behrmann, M. (2022). Assessing trial-to-trial variability in auditory ERPs in autism and schizophrenia. *Journal of Autism and Developmental Disorders*. Special issue: Sensory Features in Autism and Related Conditions: Developmental Approaches, Mechanisms and Targeted Interventions, doi: 10.1007/s10803-022-05771-0. Online ahead of print.

255. Liu, N., **Behrmann, M.**, Turchi, J. N., Avidan, G., Hadj-Bouziane, F. and Ungerleider, L. (2022). Hierarchical organization of face patches in macaque cortex as revealed by fMRI and pharmacological inactivation, *Nature Communication*, 13(1):6787. doi: 10.1038/s41467-022-34451-x.

254. Haigh, S., Brosseau, P., Eack, S. M., Leitman, D., Salisbury, D. **Behrmann, M.** (2022). Hyper-sensitivity to pitch is related to poorer prosody processing in adults with autism, *Frontiers in Psychiatry*, 13, 13:844830. <https://doi.org/10.3389/fpsy.2022.844830>

253. Ayzenberg, V. and **Behrmann, M.** (2022). Object-centered spatial relations: A functional contribution of the dorsal visual pathway to object categorization, *Journal of Neuroscience*, 8;42(23):4693-4710. doi: 10.1523/JNEUROSCI.2257-21.2022.

252. Sha, Z., Behrmann, M. ... (2022). Subtly altered topological asymmetry of brain structural covariance networks in autism spectrum disorder across 43 datasets from the ENIGMA consortium. *Molecular Psychiatry*, doi: 10.1038/s41380-022-01452-7. Online ahead of print

251. Ahmad, Z., **Behrmann, M.**, Patterson, C. and Freud, E. (2022). Unilateral cortical resection of both visual pathways alters action but not perception in a paediatric patient with pharmaco-resistant epilepsy, *Neuropsychologia*, 22, 108182.

250. **Behrmann, M.** and Avidan, G. (2022). Face perception: Computational insights from phylogeny, *Trends in Cognitive Science*, 26(4):350-363. <https://doi.org/10.1016/j.tics.2022.01.006>.

249. Hoogman, M. ... **Behrmann, M.** (2022). Consortium neuroscience of ADHD and ASD: the ENIGMA adventure. *Human Brain Mapping*, 43, 1, 37-55. doi: 10.1002/hbm.25029. PMID: 32420680

248. Blauch, N. M., **Behrmann, M.** and Plaut, D. C. (2022). A connectivity-constrained computational account of topographic organization in high-level visual cortex, *PNAS*, 119(3):e2112566119. doi: 10.1073/pnas.2112566119.

247. Jones, M. .. **Behrmann, M.** ... (2021). Knowledge Gaps for Functional Outcomes After Multilobar Resective and Disconnective Pediatric Epilepsy Surgery: Conference Proceedings of the Patient-Centered Stakeholder Meeting 2019, *Epilepsy Disorders*, Epileptic Disord. 2022 Feb 1;24(1):50-66. doi: 10.1684/epd.2021.1373. PMID: 34806979
246. Hahamy, A., Wilf, M., Rosin, B., **Behrmann, M.** and Malach, R. (2021). How do the blind 'see'? The role of spontaneous brain activity in self-generated perception, *Brain*, 144(1):340-353 doi: 10.1093/brain/awaa384.
245. Chaman Zar, A. R., Haigh, S., Grover, P. and **Behrmann, M.** (2021). Using high resolution EEG and steady state auditory and visual presentation to differentiate migraineurs from controls, *Brain Communications*, doi:10.1093/braincomms/fcab061.
244. Almasi, R. C. and **Behrmann, M.** (2021). Subcortical regions of the visual system do not process faces holistically, *Brain and Cognition*, 151, 105726.
243. Chaman Zar, A., **Behrmann, M.** and Grover, P. (2021). Neural silences can be localized rapidly using noninvasive scalp EEG, *Nature Communications Biology*, 4, 429. <https://doi.org/10.1038/s42003-021-01768-0>
242. Avidan, G. and **Behrmann, M.** (2021). The Neural Basis of Face Processing, Including Congenital Prosopagnosia in Volume 6 of the *Annual Review of Vision Science*, Annual Review of Vision Science. 7:301-321. doi: 10.1146/annurev-vision-113020-012740. Epub 2021 May 20. PMID: 34014762
241. Lerner, Y., Scherf, K. S., Katkov, M., Hasson, U. and **Behrmann, M.** (2021). Age-Related Changes in Neural Networks Supporting Complex Visual and Social Processing in Adolescence, *Journal of Cognitive Neuroscience*, 33(11):2215-2230. doi: 10.1162/jocn\_a\_01756.
240. Maallo, A. M.S., Granovetter, M. C., Freud, E., Kastner, S., Pinsk, M. A., Patterson, C. and **Behrmann, M.** (2020). All hands on deck: Large-scale (re)sculpting of cortical circuits in post-resection children, *Scientific Reports*, Dec 9;10(1):21589. doi: 10.1038/s41598-020-78394-z.
239. Haigh, S. M., Endevelt-Shapira, Y. and **Behrmann, M.** (2020). Trial-to-trial variability in electrodermal activity to faces in autism, *Autism Research*, 13(12):2083-2093. doi: 10.1002/aur.2377. PMID: 32860323
238. Brosseau, P., Nestor, A. and **Behrmann, M.** (2020). Colorblindness adversely impacts face recognition, *Visual Cognition*, 279-284, <https://www.tandfonline.com/doi/full/10.1080/13506285.2020.1788682>
237. Freud, E., **Behrmann, M.** and Snow, J.C. (2020). What, if anything, does dorsal cortex contribute to object perception?, *Open Mind*, p40-56, [tps://doi.org/10.1162/opmi\\_a\\_00033](https://doi.org/10.1162/opmi_a_00033).
236. Boedhoe, O. ..**Behrmann, M.** et al. (2020). Subcortical brain volume, regional cortical thickness and surface area variations across attention-deficit/hyperactivity disorder (ADHD), autism spectrum disorder (ASD), and obsessive-compulsive disorder (OCD) – findings from the ENIGMA-ADHD, -ASD, and -OCD working groups. *American Journal of Psychiatry* :appiajp202019030331. doi: 10.1176/appi.ajp.2020.19030331. Online ahead of print.
235. Granovetter, M. C., Burlingham, C. S., Heeger, D. J. and **Behrmann, M.** (2020). Individuals with autism exhibit atypical pupillary responses under cognitive load, *J. Neuroscience*, 40(19):3815-3826.
234. Collins, E. and **Behrmann, M.** (2020). Exemplar learning reveals the representational origins of expert category perception, *Proc. Nat. Acad. Science*, 117(20):11167-11177.
233. Freud, E. and **Behrmann, M.** (2020). Altered large-scale organization of shape processing in visual agnosia, *Cortex*, 129:423-435. doi: 10.1016/j.cortex.2020.05.009. Epub 2020 May 25. PMID: 32574843
232. Nestor, A., Lee, A. C., Plaut, D. C. and **Behrmann, M.** (2020). Facing image reconstruction: progress, prospects, challenges, *Trends in Cognitive Science*, 24(9):747-759. doi: 10.1016/j.tics.2020.06.006. Epub 2020 Jul 13.

231. Maallo, A. M., Freud, E., Liu, T. T., Patterson, C. and **Behrmann, M.** (2020). Effects of unilateral cortical resection of visual cortex on bilateral human white matter, *Neuroimage*, 207, 116345. doi: 10.1016/j.neuroimage.2019.116345. PMID: 31712165.
230. Blauch, N., **Behrmann, M.** and Plaut, D. C. (2020). Computational insights into human expertise for familiar and unfamiliar face recognition. <https://psyarxiv.com/bv5mp/>, *Cognition*, 203, 22:104341. doi: 10.1016/j.cognition.2020.104341. PMID: 32586632
229. **Behrmann, M.** and Plaut, D. C. (2020). Hemispheric organization in the service of object recognition. *Perception*, doi.org/10.1177/0301006619899049.
228. Sevcikova, Z., Holcomb, P. J., Emmorey, K., **Behrmann, M.**, and Plaut, D. C. (2020). Unique N170 asymmetries to visual words and faces reflect experience-specific adaptation in adult deaf ASL signers, *Neuropsychologia*, Apr;141:107414. doi: 10.1016/j.neuropsychologia.2020.107414.
227. Postema, M. C., van Rooij, D., ... **Behrmann, M.** et al. (2019). Altered structural brain asymmetry in Autism Spectrum Disorder: a large-scale analysis via the ENIGMA Consortium, *Nature Communications*, Oct 31;10(1):4958. doi: 10.1038/s41467-019-13005-8.
226. Haigh, S. M., Chamanzar, A., Grover, P. and **Behrmann, M.** (2019). Cortical hyper-excitability in migraine in response to chromatic patterns, *Headache*, 59(10):1773-1787.
225. Freud, E., Plaut, D. C. and **Behrmann, M.** (2019). Protracted developmental trajectory of shape processing along the two visual pathways, *Journal of Cognitive Neuroscience*, 10: 1589-1597. doi: 10.1162/jocn\_a\_01434.
224. Liu, T. T., Freud, E., Patterson, C. and **Behrmann, M.** (2019). Visuoperceptual function and category-selective organization in children with cortical resections, *Journal of Neuroscience*, 39, 6299-6314 <https://doi.org/10.1523/JNEUROSCI.3160-18.2019>
223. Haigh, S., Eack, S. M, Keller, T., Minshew, N. and **Behrmann, M.** (2019). White matter integrity in schizophrenia and autism: abnormal diffusion across the brain in schizophrenia? *Neuropsychologia*, Oct 23;135:107233.
222. Holler, D. E., **Behrmann, M.** and Snow, J. C. (2019). Real-world size coding of solid objects, but not 2-D or 3-D images, in visual agnosia patients with bilateral ventral lesions, *Cortex*, 119, 555-568. doi: 10.1016/j.cortex.2019.02.030. PMID 30987739
221. Freud, E., Culham, J., Namdar, G. and **Behrmann, M.** (2019). Object complexity modulates the association between action and perception in childhood, *Journal of Experimental Child Psychology*, 179, 56-72.
220. Holzinger, Y., Ullman, S., **Behrmann, M.** and Avidan, G. (2019). Minimal Recognizable Configurations (MIRCs) elicit category-selective responses in higher-order visual cortex, *J. Cognitive Neuroscience*, 9, 1354-1367. PMID: 31059350 DOI:[10.1162/jocn\\_a\\_01420](https://doi.org/10.1162/jocn_a_01420)
219. Collins, E., Freud, E., Kainerstorfer, J., Cao, J. and **Behrmann, M.** (2019). Temporal dynamics of shape processing differentiate contributions of dorsal and ventral visual pathways, *Journal of Cognitive Neuroscience*, 2019, 6, 821-836. doi: 10.1162/jocn\_a\_01391. [Epub ahead of print] PMID: 30883289
218. Haigh, S., Robinson, A., Grover, P. and **Behrmann, M.** (2018). Visual agnosia: Decoding EEG signals from visual cortex. Special issue of *Vision (Visual Perception and its neural mechanism)*, 2, 44, doi:10.3390/vision2040044.
217. Nemrodov, D., **Behrmann, M.**, Niemeier, M., Drobotenko, N. and Nestor, A. (2019). Multimodal evidence on individual face processing, *Neuroimage*, 184, 813-825. doi: 10.1016/j.neuroimage.2018.09.083. PMID: 30291975

216. Liu, T. T., Nestor, A., Patterson, C., Vida, M. D., Pyles, J. A., Yang, Y., Freud, E. and **Behrmann, M.** (2018). Successful Reorganization of Category-Selective Visual Cortex following Occipito-temporal Lobectomy in Childhood, *Cell Reports*, 24, 5, p1113-1122.e6
215. Nah, J.C., Neppi-Modona, M., Strother, L., **Behrmann, M.** and Shomstein, S. (2018). Object Width Modulates Object-Based Attentional Selection, *Attention, Perception and Psychophysics*, 80(6):1375-1389. doi: 10.3758/s13414-018-1530-y.PMID: 29691762
214. Krishnan, A., Kumar, R., Etienne, A., Robinson, A., Kelly, S., K., **Behrmann, M.**, Tarr, M., and Grover, P. (2018). Challenges and Opportunities in Instrumentation and Use of High-Density EEG for Underserved Regions. *Interdisciplinary Solutions 2018 (InterSol2018)*.
213. Freud, E., Robinson, A. and **Behrmann, M.** (2018). More than action: The dorsal pathway contributes to the perception of 3D structure. *Journal of Cognitive Neuroscience*, 30(7):1047-1058. doi: 10.1162/jocn\_a\_01262. PMID: 29561234
212. Collins, E., Robinson, A., and **Behrmann, M.** (2018). Distinct neural processes for the perception of familiar and unfamiliar faces along the visual hierarchy revealed by frequency tagging. *Neuroimage*, 181:120-131. doi: 10.1016/j.neuroimage.2018.06.080. PMID: 29966716
211. **Behrmann, M.** and Geskin, J. (2018). Over time, the right results will emerge. Response to commentaries. *Cognitive Neuropsychology*, 35, 1-2, 101-111.
210. Geskin, J. and **Behrmann, M.** (2018). Congenital prosopagnosia without object agnosia: A literature review (with commentaries). *Cognitive Neuropsychology*, 35, 1-2, 4-54.
209. van Rooij, D., ... **Behrmann, M.** et al. (2018). Cortical and Subcortical Brain Morphometry Differences Between Patients With Autism Spectrum Disorder and Healthy Individuals Across the Lifespan: Results From the ENIGMA ASD Working Group. *American Journal of Psychiatry*, Apr 1;175(4):359-369. doi: 10.1176/appi.ajp.2017.17010100. PMID: 29145754
208. Freud, E., Culham, J. C., Plaut, D. C. and **Behrmann, M.** (2017). The large-scale organization of shape processing in the ventral and dorsal pathways. *eLife*, Oct 5;6. pii: e27576. doi: 10.7554/eLife.27576. PMID: 28980938
207. Vida, M. and **Behrmann, M.** (2017). Subcortical facilitation of rapid responses to threat, *Scientific Reports*, 7:13087, DOI:10.1038/s41598-017-13203-8.
206. Collins, E. G., Dundas, E., Gabay, Y. and **Behrmann, M.** (2017). Hemispheric organization in neuro-developmental disorders. *Visual Cognition (Special Issue on "Person Perception")*. 25, 4-6, 416-429.
205. Robinson, A., Venkatesh, P., Boring, M. J., Tarr, M., **Behrmann, M.**, and Grover, P. (2017). Very high density EEG elucidates spatiotemporal aspects of early visual processing, *Scientific Reports*, 7(1):16248. doi: 10.1038/s41598-017-16377-3. PMID: 29176609
204. Brown, E. N. and **Behrmann, M.** (2017). Controversy in statistical analysis of functional magnetic resonance imaging data. *Proc. Nat. Academy of Sciences*, doi: 10.1073/pnas.1705513114
203. Freud, E. and **Behrmann, M.** (2017). The life-span trajectory of visual perception of 3D objects. *Scientific Reports*, 8;7(1):11034. doi: 10.1038/s41598-017-11406-7.
202. Gabay, Y., Dundas, E., Plaut, D. and **Behrmann, M.** (2017). Atypical perceptual processing of faces in developmental dyslexia, *Brain and Language*, 173, 41-51.
201. Liu, T. T. and **Behrmann, M.** (2017). Functional outcomes in patients with lesions in visual cortex: Implications for developmental plasticity of high-level vision. *Neuropsychologia*, 105, 197-214. PMID: 28668576

200. Rosenthal, G., Tanzer, M., Simony, E., Hasson, U., **Behrmann, M.** and Avidan, G. (2017). Altered topology of neural circuits in congenital prosopagnosia. *eLife*, <https://elifesciences.org/articles/25069>. PMID: 28825896
199. Collins, E., Park, J. and **Behrmann, M.** (2017). Numerosity representation is encoded in human subcortex, *Proc. Nat. Academy of Sci (PNAS)*, 114(14):E2806-E2815.
198. Maurides, P. and **Behrmann, M.** (2017). The brain as muse – bridging art and neuroscience. *Leonardo*, 10.1162/LEON\_a\_01402, January 2017.
197. Robinson, A., Plaut, D. C. and **Behrmann, M.** (2017). Word and face processing engage overlapping distributed networks: Evidence from RSVP and EEG investigations. *Journal of Experiment Psychology: General*, 146(7):943-961. PMID: 28368200
196. Rokem, A., Takemura, H., Bock, A., Scherf, S., Bridge, H., Fine, I., **Behrmann, M.**, Wandell, B., Van Essen, D., and Pestilli, F. (2017). The visual white matter: The application of diffusion MRI and fiber tractography to vision science, *Journal of Vision*, 17(2):4, 1-30. doi: 10.1167/17.2.4. PMID: 28196374
195. Vida, M., Nestor, A., Plaut, D. and **Behrmann, M.** (2017). Spatio-temporal dynamics of similarity-based neural representations of individual face identities, *Proc. Nat. Academy of Sci (PNAS)*, 114, 2, 388-393. PMID: 28028220
194. Heeger, D., **Behrmann, M.** and Dinstein, I. (2016). Vision as a beachhead. *Biol Psychiatry*. 15;81(10):832-837. PMID: 27884424
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**1b. Refereed Journals: submitted, being revised or in preparation**

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Granovetter, M. C., Patterson, C. and **Behrmann, M.** Functional MRI with pediatric epilepsy surgery: a tool for understanding childhood brain plasticity, *Brain, submitted*.

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### 1c. Commentaries and other writing

**Behrmann, M.** Leslie G. Ungerleider (1946–2020): the multiple careers of a single extraordinary scientist <https://www.nature.com/articles/s41593-021-00808-6>

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## 2. Books and Book Chapters

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1. Mozer, M. and **Behrmann, M.** (1992). Reading with attentional impairments: A brain damaged model of neglect and attentional dyslexias. In R. G. Reilly and N. E. Sharkey (Eds.) *Connectionist approaches to natural language processing*. Hillsdale, NJ: Erlbaum Associates, p409-460.

## **D. PRESENTATIONS**

### **1. Invited papers presented at recent scientific meetings**

**Behrmann, M.** (2023). The roots, present, and future of cognitive neuroscience. Address at Cognitive Neuroscience Society Symposium, San Francisco.

**Behrmann, M.** (2023). Face patches and circuitry in human and non-human inferotemporal cortex. Cognitive Neuroscience Society Symposium in memory of Dr Leslie Ungerleider, San Francisco.

**Behrmann, M.** (2022). Nu Rho Psi Induction Speaker, Slippery Rock University.

**Behrmann, M.** (2022) Institute of Cognitive Neuroscience, Wellcome Institute, London, UK.

**Behrmann, M.** (2022). Colloquium, Department of Neurobiology, University of Pittsburgh.

**Behrmann, M.** (2022). Colloquium, Surgical Neurology Branch of the NIH in Bethesda.

**Behrmann, M.** (2022). University of Pittsburgh Epilepsy Center Grand Rounds, Epilepsy Center.

**Behrmann, M.** (2022). Keynote speaker, Duke University, DIBS Distinguished Lecture and Symposium, virtual.

**Behrmann, M.** (2022). Sharif Neuroscience Conference, Tehran, Iran.

**Behrmann, M.** (2021). Bar Ilan University, Visual Colloquium. The emergence and plasticity of visual domain organization in the cerebral hemispheres.

**Behrmann, M.** (2021). Hemispheric organization and pattern recognition. VSS, Virtual.

**Behrmann, M.** (2021). Society for Research in Child Development, virtual meeting. The emergence of hemispheric organization: The case of faces and words.

**Behrmann, M.** (2020). Keynote speaker, Cognitive Neuroscience Society, virtual meeting. Hemispheric organization for visual recognition.

**Behrmann, M.** (2019). Keynote speaker. The organisational principles of the visual ventral stream: convergent evidence from neuroimaging, neuropsychology, and computational modelling. MRC Cognition and Brain Sciences Unit (CBU) Cambridge, UK.

**Behrmann, M.** (2019). Keynote speaker ECVF Leuven, Belgium.

**Behrmann, M.** (2019). Discussant, symposium, Face perception and face recognition: a clinical perspective, ECVF Leuven, Belgium.

- Behrmann, M.** (2018). Invited speaker, National Eye Institute 50<sup>th</sup> anniversary, Bethesda, MD.
- Behrmann, M.** (2018). Invited speaker, International Neuropsychology Symposium, Cassis, France, June.
- Behrmann, M.** (2018). Invited speaker, Brenda Milner Centennial Symposium, Montreal, Canada.
- Behrmann, M.** (2016). Keynote speaker, Shenzhen Neuroscience Symposium, China, December.
- Behrmann, M.** (2016). Invited speaker, 2016 McDonnell Summer Institute in Cognitive Neuroscience.
- Behrmann, M.** (2016). Invited speaker, Gordon conference on Neurobiology of Cognition.

## 2. Papers presented at meetings and symposia (last five years)

Robert, S., Granovetter, M. C. and **Behrmann, M.** (2023). Hemispherectomy-induced alterations in the lateralization of spatial- and object-based attention, *Vision Sciences Society, Florida*.

Ayzenberg, V. and **Behrmann, M.** (2023). Dorsal and ventral visual pathways: An expanded neural framework for object recognition, *Vision Sciences Society, Florida*.

Kramer, M.A., Ayzenberg, V., Wang, Z., Patterson C. and **Behrmann, M.** (2023). Functional contributions of the dorsal pathway to shape perception: Evidence from intracranial recording, *Vision Sciences Society, Florida*.

Chroneos, M. Z., Willett, S. M., Robert, S., Mayo, J. P., Behrmann, M. (2023). Sinusoidal Smooth Pursuit After Childhood Hemispherectomy. *Vision Sciences Society, Florida*.

Robinson, A. K., Grootswagers, T., Shatek, S. M., **Behrmann, M.** and Carlson, T. A. (2022). The dynamics of object coding within and across the hemispheres. *Society for Neurosciences, San Diego*.

Robert, S., Granovetter, M., Patterson, C. and Behrmann, M. (2022). Investigation of hemispheric functional organization after pediatric epilepsy surgery with naturalistic neuroimaging, *Vision Sciences Society, Florida*.

Blauch, N., **Behrmann, M.** and Plaut, D. C. (2022). Connectivity constraints, viewing biases, and task demands within a bi-hemispheric interactive topographic network model account for the layout of human ventral temporal cortex, *Vision Sciences Society, Florida*.

Liu, T. T., Granovetter, M., Maallo, A. S. M., Fu, J. Z., Patterson, C. and **Behrmann, M.** (2022). Plasticity of visual cortex following large cortical resection, *Vision Sciences Society, Florida*.

Granovetter, M. C., Maallo, A. M. S., Glen, D., Patterson, C. and **Behrmann, M.** Morphometric Changes in the Intact Hemisphere After Pediatric Epilepsy Surgery, American Epilepsy Society, 2021.

Vin, R., Blauch, N., **Behrmann, M.** Investigating distributed functional connectivity during word and nonword visual recognition. *Vision Science Society, 2021*.

Glen, D. R., Levenstein, J. Granovetter, M., Maallo, A. M. S. and **Behrmann, M.** Large lesion brain alignment. *Organization of Human Brain Mapping, 2021*.

Ahmad, Z., **Behrmann, M.**, Patterson, C. and Freud, E. Unilateral Cortical Resection of Both Visual Pathways Alters Action but not Perception in a Pediatric Patient with Pharmaco-resistant Epilepsy

**Behrmann, M.** The Emergence of Hemispheric Organization: The case of faces and words. SRCD April.

Chamanzar, A. **Behrmann, M.** and Grover, P. Neural silences can be localized rapidly using template head models.



SFN, virtual, Jan 2021.

Granovetter, M. C., Maallo, A. M. S., Patterson, C. and **Behrmann, M.** Cortical morphology of the contralesional hemisphere following pediatric unilateral resection. SFN, virtual, Jan 2021.

Blauch, N., Maallo, A. M. S., Plaut, D. C. and **Behrmann, M.** Evidence from fMRI for an interactive account of hemispheric lateralization in visual perception. CNS, Virtual, May 2020.

Blauch, N., **Behrmann, M.** and Plaut, D. C. Computational insights into human expertise for (un)familiar face recognition. CNS, Virtual, May 2020.

Maallo, A. M. S., Freud, E., Granovetter, M. C., and **Behrmann, M.** Reorganization of functional connectivity does not obviously explain outcome post-lobectomy. CNS, Virtual, May 2020

Robinson, A. K., Grootswagers, T., Shatek, S., **Behrmann, M.** and Carlson, T. A. (2020). The temporal dynamics of object processing within and across the hemispheres. Vision Sciences Society, Florida.

Blauch, N. M., **Behrmann, M.**, and Plaut, D. C. (2020). Cortical organization as optimization. Vision Sciences Society, Florida.

Haigh, S. M., Brosseau, P., Eack, S. M., Lele, C., Leitman, D. I., Salisbury, D. F. and **Behrmann, M.** (2020). Hyper- and hypo-sensitivity to pitch related to poorer prosody processing: A study in autism and schizophrenia. Society for Biological Psychiatry.

Maallo, A.M., Freud, E., **Behrmann, M.** (2019). Focal changes to human white matter concomitant with unilateral cortical lesions. Society for Neuroscience, Chicago, October.

Haigh, S. M., Brosseau, P., Lele, C., Eack, S. M., Leitman, D. I. and **Behrmann, M.** (2019). Hyper-sensitivity to pitch related to poorer prosody processing in adults with autism. Society for Neuroscience, Chicago, October.

Collins, E. and **Behrmann, M.** (2019). Representational Origins of Visual Expertise: Exemplar Learning Differentiates Novice and Expert Category Perception. Poster, Cognitive Neuroscience Society, San Francisco.

Granovetter, M. C, Burlingham, C. S., Heeger, D. J. and **Behrmann, M.** (2019). Individuals with autism exhibit atypical pupillary responses under cognitive load. Poster, Cognitive Neuroscience Society, San Francisco.

Picci, G., Scherf, K. S. and **Behrmann, M.** (2018). Greeble Training in Adolescents Increases Neural Activation in the FFA. Vision Sciences Society, Naples, Florida, May.

Haigh, S. M., Eack, S. M., Keller, T., Minschew, N. J. and **Behrmann, M.** (2018) Abnormal diffusion across the brain in schizophrenia compared to autism. Society for Neurosciences, San Diego, DC.

Nemrodov, D., **Behrmann, M.**, Niemeier, M., Drobotenko, N. and Nestor, A. (2017). Shape and surface: an evaluation of different neuroimaging modalities. Society for Neurosciences, Washington, DC.

Freud, E., Robinson, A. and **Behrmann, M.** (2017). The dorsal pathway contributes to the perception of three-dimensional (3D) structure – Evidence from Continuous Flash Suppression. Society for Neurosciences, Washington, DC.

Venkatesh, P., Grover, P., Robinson, A., **Behrmann, M.**, Krishnan, A., Kelly, S., Weldon, J., Tarr, M. (2017) Fundamental limits, algorithms, and instrumentation for novel non-invasive and minimally-invasive "ultra-resolution" EEG systems. 8th International Workshop on the Statistical Analysis of Neuronal Data, Pittsburgh.

Nah, J.C, Neppi-Modona, M., Strother, L., **Behrmann, M.** and Shomstein, S. (2017). The Effect of Size on Object-Based Attentional Selection. Vision Sciences Society, Naples, Florida, May.

Freud, E., Plaut, D. C., Culham, J. and **Behrmann, M.** (2017). Large scale organization of object processing in the ventral and dorsal pathways. Vision Sciences Society, Naples, Florida, May.

**Behrmann, M.** and Geskin, J. (2017). Are all objects created equal? Vision Sciences Society, Naples, Florida, May.

Collins, E., Park, J. P., and **Behrmann, M.** (2017). Number in the human subcortex. Vision Sciences Society, Naples, Florida, May.

### 3. Departmental colloquia/seminars since 2014

**2014:** Ohio State University • West Virginia University • Macquarie University, Sydney

**2015:** George Washington University • University of California, San Diego • University of Toronto • University of Pennsylvania • University of Trento, Italy • SISSA, Trieste, Italy

**2016:** University of California, San Diego • Arizona State University • Organizer Neurons to Neighborhood, Carnegie Mellon University • ICM - Institut du Cerveau et de la Moelle épinière, Paris

**2017:** National Institutes of Health • University of California, Davis • Washington University, St Louis • Brown University • York University, Toronto • Statistical Analysis of Neural Data (SAND8), Pittsburgh, PA • University of Maryland • University of Reno.

**2018:** IBRO-Simons computational neuroscience summer school in South Africa • 2018 Learning Forum Emory University, Atlanta • 2018 installment of the Nornes Lectureship in Neuroscience, Concordia College, Moorhead, MN • International Neuropsychological Symposium, Cassis, France • Montreal Neurological Institute, Canada • 50<sup>th</sup> anniversary National Eye Institute, Washington DC • Women in Data Science international conference, Pittsburgh PA • University of Oregon.

**2019:** Rice University, February • Peking University, Beijing, March • University of Massachusetts at Amherst •

Hebb Lecture at McGill University, Montreal • Leadership Pittsburgh Keynote speaker Annual meeting, Pittsburgh, January • Leader Brain talk, Leadership Pittsburgh, March • Keynote speaker, Brain recovery Project, Cleveland, July • Keynote speaker European Conference on Visual Perception, Leuven, Belgium, August • Keynote speaker MRC CBU, University of Cambridge, UK, September.

**2020:** Princeton University • Michigan State University • NIH Workshop Understanding Human Retina Biology and Perception

**2021:** Salk Institute, UCSD • Grand Rounds, UPMC

**2022:** Surgical Neurology Branch of the NIH • Sharif Neuroscience Symposium, Tehran • Duke Institute for Brain Sciences Distinguished Lecture 2022 • Department of Neurobiology, University of Pittsburgh • National Institutes of Health (Memorial Leslie Ungerleider symposium) • New York University

**2023:** New York University; Washington University; University of Trento (Mind/Brain Sciences); Institute for Brain Science, South Korea;

#### **Other synergistic activities:**

Section member, Class Membership Committee, National Academy of Science, 2022-

Keynote speaker, Leadership Pittsburgh Lunch, February 2019

Big Table host, Carnegie Mellon University (under auspices of Leadership Pittsburgh), April 2019

Rothschild Award selection committee

Troland prize committee, National Academy of Sciences

Membership committee, Section 52, National Academy of Sciences  
 SFN prize committees, Society for Neurosciences

## **E. STUDENT/POSTDOC TRAINING and Awards**

### **Graduate students (n=19)**

Maria Chroneous, current, MSTP  
 Max Kramer, current  
 Sophia Roberts\* current, Graduate Research Fellowship, NSF  
 Nick Blauch, current, Program in Neural Computation  
 Michael Granovetter, current, MSTP, American Epilepsy Foundation Fellowship  
 Elliot Collins, MSTP, now Psychiatry Resident  
 Tina Tong Liu, now Postdoc, NIMH  
 Eva Dundas, now Chief Learning Officer, Branching Minds  
 Jaime Doyle, Physician's Assistant, Neurosurgery at Geisinger Health System  
 Valentinos Zachariou, Scientist, Department of Neuroscience, University of Kentucky  
 Linda Moya, Distinguished Service Professor, Carnegie Mellon University  
 Cibu Thomas, Center for Scientific Review, NIH.  
 Dwight Kravitz, Associate Professor, George Washington University  
 Anthony Cate, Assistant Professor, Roanoke College  
 Joy Geng, Professor, University of California, Davis  
 Craig Haimson, Cognitive Science researcher, Interaction Design Foundation  
 James Fleming, Science Teacher  
 Rick Gilmore (with Mark Johnson), Professor, Penn State  
 Shaun Vecera (with Martha Farah), Professor, University of Iowa

### **Postdoctoral fellows (n=27)**

Shouyu Ling, October 2022  
 Vladislav Ayzenberg, current  
 Marge Maallo, Postdoc, Linköping University, Sweden  
 Erez Freud, Assistant Professor, York University  
 Amanda Robinson, Queensland Brain Institute Neuroscience  
 Mark Vida  
 Sarah Haigh, Assistant Professor, University of Nevada  
 Shai Gabay, Professor, University of Haifa  
 Ilan Dinstein, Associate Professor, Ben Gurion University  
 Adam Greenberg, Assistant Professor, Marquette University  
 Adrian Nestor, Associate Professor, University of Toronto,  
 K. Suzy Scherf, Associate Professor, Penn State  
 Mayu Nishimura, Assistant Professor, McMaster University  
 Serena Butcher  
 Katherine Humphreys, Institute of Psychiatry, London  
 Sarah Shomstein, Professor, Assistant Professor,  
 Lars Strother, Associate Professor, University of Nevada  
 Jonathan Marotta, Professor, University of Manitoba  
 John Philbeck, Professor, Assistant Professor,  
 Galia Avidan, Professor, Ben Gurion University  
 Mark Orr, Research Associate Professor, University of Virginia  
 Orna Rosenthal, Research Associate, University of Birmingham  
 Chris Baker (with Carl Olson), Lab Chief, NIMH  
 Marie Montant, Aix-Marseille University and CNRS, France  
 Therese Huston, founding director of the Center for Excellence in Teaching and Learning at Seattle University  
 Suzanna Becker, Professor, McMaster University  
 Richard Zemel, Professor, Columbia University

### **Faculty mentoring**

Jacqueline Snow, University of Nevada  
Lars Strother, University of Nevada  
Meike Ramon, University of Fribourg, Switzerland

**Lab visitors for semester or more**

Rutie Kimchi, University of Haifa  
Marco Neppi-Modona, University of Turin  
Lisa Saskia Arduino, University of Rome  
Marie Montant, CNRS Marseille  
Rachel Mycroft, University of Exeter  
Avital Hahamy, Weizmann Institute of Science, Israel

**F. Department and University Service**

2019 and onwards:

1. Adviser, Postdocs Psychology Department
2. Mental Health Training Ad Hoc Committee for Student Experience
3. Task Force for Climate Change (faculty focus)
4. Committee, Mental Health priorities at CMU

Graduate thesis committees:

2022: Emefa, Alireza Chamanzar

**G. TEACHING**

My teaching revolves around two major themes: Biological Foundations of Behavior (sometimes referred to as Physiological or Biological Psychology) and Visual Cognition. I have taught courses at both the undergraduate and graduate level. Several of the classes bring these two themes together (e.g. Introduction to Cognitive Neuroscience and Cognitive Neuropsychology). Examples of courses include:

- a. Introduction to Cognitive Neuroscience
- b. Cognitive Neuropsychology
- c. Biological Foundations of Behavior
- d. Visual Cognition
- e. Cognitive Psychology (graduate level)
- f. Hemispheric specialization

I have also taught upper-level and graduate seminar classes such as:

- a. Attention
- b. Perception and action
- c. Visual cognition
- d. Hemispheric organization

**In the news**

**2022**

<https://www.popsugar.com/fitness/prosopagnosia-face-blindness-48877793>

[https://www.newscientist.com/article/2333604-people-with-half-a-brain-removed-do-well-at-face-and-word-recognition/?utm\\_medium=social&utm\\_campaign=echobox&utm\\_source=Twitter#Echobox=1660569574](https://www.newscientist.com/article/2333604-people-with-half-a-brain-removed-do-well-at-face-and-word-recognition/?utm_medium=social&utm_campaign=echobox&utm_source=Twitter#Echobox=1660569574)

<https://www.nei.nih.gov/about/news-and-events/news/word-and-face-recognition-can-be-adequately-supported-half-brain-study-finds>

<https://nextpittsburgh.com/latest-news/precision-neuroscopics-wins-150000-upprize-for-improving-eegs/>

**2021**

<https://engineering.cmu.edu/news-events/news/2021/04/01-neural-silences.html>  
<https://www.cmu.edu/dietrich/faculty-staff/personal-mentions.html>

**2020**

KCBS All News Radio

<https://www.nytimes.com/2020/08/31/health/covid-masks-face-blindness.html>  
<https://www.cmu.edu/news/stories/archives/2020/march/behrmann-honor.html>  
<https://www.cmu.edu/dietrich/news/news-stories/2020/march/behrmann-teller.html>  
[https://www.eurekalert.org/pub\\_releases/2020-04/sfn-cib033120.php](https://www.eurekalert.org/pub_releases/2020-04/sfn-cib033120.php)  
[https://www.spectrumnews.org/news/autistic-people-may-have-trouble-tuning-out-distractions/?utm\\_source=Spectrum+Newsletters&utm\\_campaign=a9f884322a-EMAIL\\_CAMPAIGN\\_2020\\_05\\_01\\_08\\_06&utm\\_medium=email&utm\\_term=0\\_529db1161f-a9f884322a-168801273](https://www.spectrumnews.org/news/autistic-people-may-have-trouble-tuning-out-distractions/?utm_source=Spectrum+Newsletters&utm_campaign=a9f884322a-EMAIL_CAMPAIGN_2020_05_01_08_06&utm_medium=email&utm_term=0_529db1161f-a9f884322a-168801273)  
<https://www.youtube.com/watch?v=2jM2hjPtacw&feature=youtu.be>

**2019**

<http://eyeonvision.blogspot.com/2019/06/epileptic-children-retaining-visual.html>  
<https://www.sciencedaily.com/releases/2019/06/190604131121.htm>  
<https://www.cmu.edu/news/stories/archives/2019/june/brain-reorganizing.html>  
<https://www.newsweek.com/epileptic-girl-who-had-half-her-brain-removed-can-read-after-organ-rewired-itself-1441797>  
<https://www.cmu.edu/dietrich/news/news-stories/2019/june/brains-reorganize.html>  
<https://www.facebook.com/CMUDietrich/>  
[https://www.instagram.com/p/ByTFXtGlyeF/?utm\\_source=ig\\_web\\_copy\\_link](https://www.instagram.com/p/ByTFXtGlyeF/?utm_source=ig_web_copy_link)  
[https://twitter.com/CMU\\_DietrichHSS/status/1135978501864075264](https://twitter.com/CMU_DietrichHSS/status/1135978501864075264)  
<https://www.technologynetworks.com/neuroscience/news/childrens-brains-dramatically-rewire-to-retain-perception-after-epilepsy-surgery-320228>  
<https://www.nih.gov/news-events/news-releases/childrens-brains-reorganize-after-epilepsy-surgery-retain-visual-perception>  
<https://onezero.medium.com/the-brain-that-remade-itself-bcc7b3a43cff>  
<https://www.post-gazette.com/life/seen/2019/01/14/Leadership-Pittsburgh-Inc-Champagne-Luncheon-SEEN-Natalie-Bencivenga-Oliphant/stories/201901140006>  
<https://www.cmu.edu/news/stories/archives/2019/april/academy-arts-and-sciences-fellows.html>

**2018**

<https://www.the-scientist.com/notebook/after-a-lobectomy--a-boy-still-recognizes-words-and-faces-64939>  
<https://www.parsing-science.org/2018/11/13/marlene-behrmann/>  
<http://www.sajr.co.za/news-and-articles/2018/11/01/south-african-emigres-deeply-shaken-by-pittsburgh-shooting>  
<https://www.usatoday.com/story/news/nation-now/2018/08/03/boy-without-one-sixth-his-brain-normal-pennsylvania/889752002/>  
<https://www.pbs.org/newshour/science/this-child-lost-a-sixth-of-his-brain-the-rest-learned-to-pick-up-the-slack>  
[https://www.washingtonpost.com/news/to-your-health/wp/2018/08/02/a-12-year-old-had-one-sixth-of-his-brain-removed-he-feels-perfectly-normal/?utm\\_term=.3bebee8c7ef3](https://www.washingtonpost.com/news/to-your-health/wp/2018/08/02/a-12-year-old-had-one-sixth-of-his-brain-removed-he-feels-perfectly-normal/?utm_term=.3bebee8c7ef3)  
<https://www.cnn.com/2018/07/31/health/surgeons-remove-part-of-childs-brain-case-study/index.html>  
<https://www.newsweek.com/lobectomy-study-scientists-reveal-boys-incredible-recovery-after-large-chunk-1052238>  
<https://arstechnica.com/science/2018/08/doctors-cut-out-a-large-chunk-of-a-boys-brain-now-hes-doing-just-fine/>  
<https://www.technologynetworks.com/neuroscience/news/long-term-study-of-a-boys-lobectomy-offers-rare-glimpse-of-plasticity-in-action-307013>  
<http://www.dailymail.co.uk/health/article-6011359/Boys-brain-fills-gaps-left-lobectomy-cost-half-sight.html>  
<https://www.nbcnews.com/health/health-news/boy-recovers-normal-life-after-losing-big-part-his-brain-n896341>  
<http://www.post-gazette.com/news/health/2018/08/01/Study-finds-boy-s-brain-found-new-ways-to-learn-after-surgery-carnegie-mellon-new-stanton-tanner-collins/stories/201807310153>  
<http://www.azfamily.com/story/38777084/when-surgeons-removed-one-sixth-of-a-childs-brain-heres-what-happened>  
<https://consumer.healthday.com/cognitive-health-information-26/epilepsy-news-235/brain-s-plasticity-amazes-as-boy-recovers-from-drastic-surgery-736338.html>  
[https://www.eurekalert.org/pub\\_releases/2018-07/cmu-csc072718.php](https://www.eurekalert.org/pub_releases/2018-07/cmu-csc072718.php)

<https://www.livescience.com/63216-brain-plasticity-lobectomy.html>  
<https://www.newscientist.com/article/2175549-boys-brain-works-just-fine-after-a-large-piece-was-removed/>  
<https://www.cmu.edu/dietrich/news/news-stories/2018/july/marlene-behrmann-lobectomy-study.html>  
<https://www.wired.com/story/google-lens-does-what-the-human-brain-cant/>  
<http://www.steelers.com/news/article-4/Chuck-Noll-Foundation-announces-grants/c57230fb-abd6-4f22-bb75-ecd061b23438>  
<https://www.cmu.edu/dietrich/news/news-stories/2018/march/chuck-noll-foundation-grant.html>  
<http://triblive.com/news/healthnow/13335797-74/chuck-noll-foundation-awards-grants-to-concussion-researchers>  
<https://www.facebook.com/theNASciences/posts/1227036204104107>  
<https://www.cmu.edu/dietrich/news/news-stories/2018/march/women-in-data-science.html>  
<https://nornes2018.weebly.com/>

## **2017**

<https://www.cmu.edu/news/stories/archives/2017/december/eeg-study.html>  
<https://www.cmu.edu/dietrich/news/news-stories/2017/december/neuroscientists-engineers-new-eeg.html>  
<http://www.cmu.edu/dietrich/news/news-stories/2017/march/subcortex-number-processing.html>  
<https://www.science-et-vie.com/article/on-denombre-mieux-avec-un-seul-oeil-8183>  
<https://www.fatherly.com/?s=behrmann>

## **2016**

<http://www.hollandsentinel.com/news/20161227/scientists-explore-mystery-of-face-recognition>  
<http://www.post-gazette.com/news/science/2016/12/27/Carnegie-Mellon-University-describes-the-mystery-of-facial-recognition-by-human-brains/stories/201612260102>  
<http://www.cmu.edu/dietrich/news/news-stories/2016/december/brain-map-processes-faces.html>  
<http://www.post-gazette.com/life/seen/2016/09/12/Brain-Gain-Gala-event-held-by-the-Ladies-Hospital-Aid-Society/stories/201609120011>  
<http://www.cmu.edu/dietrich/news/news-stories/2016/may/behrmann-braindress.html>  
<http://www.post-gazette.com/life/fashion/2016/05/15/Stylebook-snapshot-Brain-dress-by-Carnegie-Mellon-University-professor-Marlene-Behrmann-weaves-together-science-fashion/stories/201605150030>  
[https://www.facebook.com/carnegiemellonu/?hc\\_ref=NEWSFEED](https://www.facebook.com/carnegiemellonu/?hc_ref=NEWSFEED)

## **2015**

<https://www.psychologytoday.com/blog/the-athletes-way/201510/idiosyncratic-brain-synchronization-associated-autism>  
<http://www.nature.com/neurosci/neuropod/index-2015-10-29.html> (Podcast)  
<https://spectrumnews.org/news/brains-face-detector-lights-up-questions-about-autism-origins/>  
<http://www.talkradionews.com/health/2015/10/06/study-repetition-not-good-for-autism-learning.html>  
<http://www.cmu.edu/news/stories/archives/2015/october/repetition-and-autism.html>  
<http://www.cmu.edu/news/stories/archives/2015/april/behrmann-elected-to-NAS.html>  
<http://www.cmu.edu/news/stories/archives/2015/april/autism-awareness-month.html>  
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