

# Matthew K. Belmonte

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- EDUCATION
- ◇ **PhD, behavioural neuroscience**, Boston University, May 2001. Thesis: *Methods and Results for Functional Magnetic Resonance Imaging of Visual Selective Attention: A Foundation for Investigating Autism*.
  - ◇ **MFA, fiction**, Sarah Lawrence College, May 1998.
  - ◇ **MS, neurosciences**, University of California San Diego, September 1994.
  - ◇ **BA, computer science and English**, Cornell University, May 1990.
- POSTS HELD
- ◇ **Nottingham Trent University, UK**. Reader in Psychology, December 2012 till date. Conduct basic research on attention and perceptual/cognitive/motor control associated with autism and autistic traits, and translational research on communication therapy. Mentor junior colleagues on EEG/ERP study design, data acquisition and analysis, and proposal writing. Teach biological psychology, experimental behavioural research methods, clinical neuropsychology. Supervise and mentor undergraduate and postgraduate project students, doctoral students and research assistants. Lead international student recruitment from India.
  - ◇ **The Com DEALL Trust, Bangalore**. Visiting Researcher (Honorary), May 2012 till date. Develop a research emphasis integrated within a nonprofit clinical centre for autism. Deliver training on evidence-based therapies, for autism clinicians, educators and caregivers. Build local research capacity by validating local quantitative clinical assessments against international standards. Supervise clinical research on motor skills as developmental basis and therapeutic target in autism. Supervise and mentor one postdoctoral researcher.
  - ◇ **United States – India Educational Foundation, Kolkata**. Fulbright-Nehru Senior Research Scholar, July 2011 - April 2012. Behavioural studies of the relationship between motor and communicative impairments in autism, and of perception, cognition, and social scaffolding in people with Asperger syndrome in South Asian cultural context.
  - ◇ **National Brain Research Centre, Manesar, India**. Visiting Professor, September 2010 - June 2011. Behavioural and functional brain imaging studies of normal population variance in autistic perceptual and social cognitive traits. Team-taught courses in cognitive neuroscience, computational neuroscience, and neuroimaging methods.
  - ◇ **Department of Human Development, Cornell University**. Assistant Professor, August 2006 - June 2010. Conducted behavioural and EEG studies of autism. Designed, procured and built the department's electroencephalography and eye tracking laboratory. Designed and taught undergraduate and postgraduate courses on autism, electroencephalography, and introductory neuroscience. Supervised undergraduate, postgraduate and doctoral projects.
  - ◇ **Autism Research Centre, Department of Psychiatry, University of Cambridge**. Senior Research Associate, July 2002 - August 2006. Functional magnetic resonance imaging of visual attention in autism.
  - ◇ **Tuneprint, Inc.**, Cambridge, Massachusetts. Senior Research Scientist, June 2001 - January 2002. Computational modelling of the human auditory system, statistical methods for automated music recognition.

- ◇ **Howard Hughes Medical Institute, New York University Center for Neural Science.** Scientific Programmer, February 1997 - July 1998. Software development for visual stimulus presentation, real-time data acquisition, and neurophysiological signal processing.
  
- GRANTS ◇ **UK National Institute for Health Research, Research for Patient Benefit PB-PG-0816-20019:** “Evaluation of Point Out Words, a Motor Skills Intervention to Promote Language Development in Non-Verbal Children with Autism: A Feasibility Study”, 6 August 2018 – 16 March 2020, £250,000. Role: PI, 20%. *This Research for Patient Benefit feasibility trial hit a priori benchmarks for progression to a definitive trial to establish clinical effectiveness, for which I will be applying in 2023. During the pandemic I have been focussing on winding up analysis and write-up of existing data.*
- ◇ **UK Medical Research Council Global Challenge Research Fund Foundation Grant MR/P023894/1 to B. Chakrabarti:** “Development & Validation of a Scalable Mobile Platform for Screening of Developmental Neuropsychiatric Disorders in Low-Resource Settings”, 1 April 2017 – 30 May 2019, £585,692. Role: co-investigator, 5%, in charge of software design aspects.
- ◇ **European Research Council – Horizon 2020 #687772 to D.J. Brown:** “Managing Affective-learning THrough Intelligent atoms and Smart InteractionS”, 1 January 2016 – 31 December 2018, €618,750. Role: co-investigator, 15%, in charge of adapting for autism spectrum conditions this computersied classroom tutor which senses the student’s affect and engagement.
- ◇ **Fundação Bial #318/14 to C.J. Howard & M.K. Belmonte:** “Neural Correlates of Tracking Changing Position of Objects”, 29 June 2015 – 31 October 2016, €47,400. Role: joint PI, 5%.
- ◇ **Santander Universidades:** “Computer Applications to Develop Foundational Communicative Skills in Autistic Children”, 1 January 2014 – 31 July 2016, £5000. Role: PI.
- ◇ **US Institute of International Education Fulbright-Nehru Senior Research Fellowship:** “The Autism Spectrum as a Source of Cognitive and Cultural Diversity”, 15 July 2011 – 14 April 2012, ₹7,86,500 + US\$14,850. Role: PI.
- ◇ **US National Science Foundation Faculty Early Career Development Award BCS-0846892:** “Integrative Behavioural and Neurophysiological Studies of Normal and Autistic Cognition Using Video Game Environments”, 15 July 2009 – 30 June 2014, US\$700,000. Role: PI. (This proposal was ranked #1 of all considered by the autumn 2008 Developmental and Learning Sciences panel.)
- ◇ **US National Center for Research Resources High-End Instrumentation Grant 1S10RR025145-01 to Yi Wang:** “3T MR Scanner for Imaging from Mouse to Human”, 1 May 2009 – 30 April 2011, US\$2,000,000. Role: co-investigator.
- ◇ **Autism Speaks #2597:** “Video Game Environments for the Integrative Study of Perception, Attention and Social Cognition in Autism and Autism Sibs”, 1 July 2008 – 30 June 2010, US\$119,968. Role: PI.
- ◇ **Cure Autism Now:** “fMRI of Perceptual Gating and Response Selection in High-Functioning Autism and in Autism Siblings”, 1 July 2002 – 30 June 2004, US\$80,000. Role: PI.
  
- AWARDS AND HONOURS ◇ **Trophée de la e-santé (Catégorie: Patients), Castres-Mazamet Technopole, 2021**
- ◇ **Neil O’Connor Award for best published research in developmental disability by a scholar not more than ten years post-doctoral, British Psychological Society (Developmental Psychology Section), 2010**
- ◇ **UK Medical Research Council scholarship to Cold Spring Harbour course on the Biology of Social Cognition, 2006**
- ◇ **The ‘Other Prize’ for playwriting (non-student category), judged by Paul Sirett of the Royal Shakespeare Company and awarded by The Marlowe Society, Cambridge, 2004**
- ◇ **selected for IEEE-EMBS International Summer School on Biomedical Imaging, 2002**
- ◇ **International Society for Magnetic Resonance in Medicine student stipend, 2001**
- ◇ **Russek Award for outstanding doctoral research, Boston University School of Medicine, 2001**
  
- COURSES TAUGHT ◇ **Nottingham Trent University, 2012 till date:** Biological Psychology; Research Methods; contributor to Psychological Research in Context, Individual Differences, Cognitive Neuroscience, Clinical Neuropsychology, & Clinical Aspects of Behavioural Disorders

- ◇ **National Brain Research Centre**, India, 2010 – 2011: Cognitive Neuroscience; Computational Neuroscience; Electroencephalography and Event-Related Potentials
- ◇ **Cornell University**, 2006 – 2010: The Human Brain and Mind; Autism and the Development of Social Cognition; Autism Spectrum Conditions.  
1987 – 1992: Introduction to Computer Programming (tutor); Book Arts (at Risley College).
- ◇ **Churchill College, Cambridge**: Neurobiology Part 1B, Medical and Veterinary Sciences Tripos (supervisor).
- ◇ **Massachusetts Institute of Technology**, 1999 – 2001: Constructing Autism; Expository Writing; Science and Engineering Writing; Crash Course in C Programming.
- ◇ **Duke University Talent Identification Program**, summers 1998 – 2001: Theoretical Foundations of Computer Science
- ◇ **Johns Hopkins University Center for Talented Youth**, summers 1987 – 1997: Introduction to Neuroscience; Theoretical Foundations of Computer Science
  
- PHD STUDENTS SUPERVISED ◇ **Primary supervisor**: Xiangling CHEN 2027, Psychology, Nottingham Trent University; Jeff VALLA 2013, Human Development, Cornell University.
- ◇ **Second supervisor**: John LEVICK 2024, Psychology, Nottingham Trent University; Kathleen LINNANE 2007, Human Development, Cornell University.
- ◇ **Assessor**: Leonardo SUTANDI 2027, Eliana ALENCAR 2022, Sarah BUGLASS 2017, Psychology, Nottingham Trent University; Ravi SHUKLA, 2014, Science Policy Studies, Jawaharlal Nehru University; Harini Alagarai SAMPATH 2014, Information Technology in Education, International Institute of Information Technology, Hyderabad.
  
- EXTRAMURAL SERVICE ◇ **Cure Autism Now**, Scientific Review Council, 2000 – 2006
- ◇ **India Autism Center**, Kolkata, scientific advisory group, January 2020 till date
- ◇ **International Society for Autism Research**, Annual Meeting Program Committee, 2020 – 2023
- ◇ **Editorial Boards**: *Molecular Autism*, 2009 till date; *Autism Research*, 2007 – 2015; *PeerJ*, 2019 – 2021; *Frontiers in Evolutionary Psychology and Neuroscience*, 2009 – 2017 (resigned from Frontiers citing my growing concerns for editorial quality and accountability).
- ◇ **Ad hoc reviewer** for UK National Institute for Health Research, UK Medical Research Council, UK Economic and Social Research Council, US National Institutes of Health, US National Science Foundation, US Army Congressionally Directed Medical Research Programs, Netherlands Organisation for Scientific Research, Országos Tudományos Kutatási Alapprogramok (Hungarian Scientific Research Fund), Autism Speaks, Fondazione Telethon, Katholieke Universiteit Leuven Methusalem scheme, Weill Cornell Medical College Clinical and Translational Science Center; and for *Nature*, *Science*, *Nature Neuroscience*, *Trends in Neurosciences*, *Trends in Cognitive Sciences*, *Proceedings of the National Academy of Sciences of the United States of America*, *Philosophical Transactions of the Royal Society*, *Behavioral and Brain Sciences*, *Neuroscience and Biobehavioral Reviews*, *Biological Reviews*, *Journal of Neuroscience*, *Cell*, *Neuron*, *Brain*, *Cerebral Cortex*, *NeuroImage*, *American Journal of Psychiatry*, *JAMA Psychiatry*, *PLoS Biology*, *Biological Psychiatry*, and about thirty other journals: <https://publons.com/a/535472/>
- ◇ **UK National Institute for Health Research: Applied Research Collaboration East Midlands** faculty, May 2018 till date.
- ◇ **Psychometric test reviewer** for development of the British localisations of the Social Responsiveness Scale - 2, the Hamilton Anxiety Scale, the Clinical Global Impression Scale, and the Wechsler Abbreviated Scale of Intelligence; TransPerfect, New York.
- ◇ **Symposia and meetings organised**
  - “Connecting Developmental Neurobiology to Evidence-Based Developmental Therapies for People with Autism Spectrum Conditions”, The Com DEALL Trust, Bangalore, 30 April – 4 May 2012 (with Dr Prathibha Karanth)

- “Autism in Central New York: Research and Practice”, a meeting for autism parents and caregivers at Cornell University, 24 October 2009
- “Autism and Abnormal Development of Brain Connectivity”, Society for Neuroscience, San Diego, 24 October 2004

INTRAMURAL SERVICE ◇ **Nottingham Trent University**, 2012 till date: International recruitment (India); Workshop on EEG methods for faculty and staff; Workshop on scientific communication for students; Social Sciences Research Ethics Committee; Research Committee.

◇ **Cornell University**, 2006 - 2010: Undergraduate House Fellow; Graduate Studies Committee; A.D. White Professors-at-Large nominator.

◇ **Massachusetts Institute of Technology**, 1998 - 2002: Adjunct Lecturer in Scientific and Technical Writing; Instructor, MIT Educational Studies Program; Undergraduate House Fellow; Residence System Design Team; Mediator, Office of Student Conflict Resolution and Discipline; Freshman advisor, Office of Academic Services; Reader, Undergraduate Admissions; Reader, Ilona Karmel Writing Prizes; Student Information Processing Board; Lecture Series Committee.

MANUSCRIPTS IN PREPARATION *Undergraduate co-authors are denoted by <sup>ug</sup>, MSc student co-authors by <sup>pg</sup>;*

*Expected or realised article impacts are denoted with asterisks (\*):*

\*\*\*<sup>ug</sup>Deakins E, <sup>ug</sup>Simpson W, Winder B, **Belmonte MK**. A dimensional relationship between autistic and paraphilic traits in the general population. Target: *Archives of Sexual Behaviour*.

\*\*\*Valla JM, Brainerd CJ, Reyna VF, **Belmonte MK**. ‘Autistic’ cognitive traits predict false and veridical memory in neurotypical adults. Target: *Neuropsychologia*.

<sup>pg</sup>Smalley J, **Belmonte MK**. Repetitive behaviour in Down syndrome: An adaptive response to anxiety? Target: *Journal of Intellectual Disability Research*.

\*\*\*Rounds JD, Stief MS, **Belmonte MK**. Effect of sexual orientation on early visual attention to sexual stimuli: a study of event-related potentials. Target: *Social Cognitive and Affective Neuroscience*.

\*\*\*Muhl-Richardson A, Zinni M, Westerfield M, Yoder KJ, Ganzel BL, Tuladhar DA, Barsky AR, Yu Y, Chen GM, Maendel JW, Keller AL, Valla JM, Townsend J, **Belmonte MK**. Visual attention in autism families: heightened P3b response to task-irrelevant stimuli indexes autistic traits. Target: *Journal of Child Psychology and Psychiatry*.

RESEARCH REPORTS Dash T, Karanth P, **Belmonte MK**. Validation of the Com DEALL Developmental Checklist and the Com DEALL Oro-Motor Assessment in Normative and Clinical Populations in India. In preparation.

\*\*\*<sup>ug</sup>Athilingam JC, Rounds JD, Baker J, Post DJ, Ganzel BL, **Belmonte MK**. Emotion-related N250 and late positive event-related potentials are generated distant from their scalp locations and reflect recognition of emotions both from faces and from non-social objects. Under review by *Social Cognitive and Affective Neuroscience*.

Chakrabarty M, Dasgupta G, Bhattacharya K, Acharya RP, Halder M, Guha PC, Chatterjee SS, Dutta A, <sup>pg</sup>Nusrat S, **Belmonte MK**. Bengalis see approachability, Britons see suspicion: Convergent effects of language and culture in ‘Reading the Mind in the Eyes’. Under review by *Personality and Individual Differences*.

<sup>pg</sup>Bickerton EE, **Belmonte MK**. Gender-specific associations of primary and secondary psychopathic traits with recognition of fear and other facial emotions. In revision for *Personality and Individual Differences*.

Dubey I, Bishain R, Dasgupta J, Bhavnani S, **Belmonte MK**; Gliga T, Mukherjee D, Lockwood Estrin G, Johnson MH, Chandran S, Patel V, Gulati S, Divan G, Chakrabarti B. Using mobile health technology to assess childhood autism in low-resource community settings in India: An innovation to address the detection gap. *Autism* 2024; **28**(3):755-769. doi: 10.1177/13623613231182801

Dubey I, Brett S, Ruta L, Bishain R, Chandran S, Bhavnani S, **Belmonte MK**, Lockwood Estrin G, Johnson MH, Gliga T, Chakrabarti B. Quantifying preference for social stimuli in young children using two tasks on a mobile platform. *PLoS ONE* 2022; **17**(6):e0265587. doi: 10.1371/journal.pone.0265587

Standen PJ, Brown DJ, Kwiatkowska GM, **Belmonte MK**, Galvez Trigo MJ, Boulton H, Burton A, Hallowell MJ, Shopland N, Blanco Gonzalez MA, Milli E, Cobello S, Mazzucato A, Traversi M. Teachers' perspectives on the adoption of an adaptive learning system based on multimodal affect recognition for students with learning disabilities and autism. In: Sottolare RA, Schwarz J (eds) *Adaptive Instructional Systems. Design and Evaluation. HCII 2021. Lecture Notes in Computer Science* 2021; 12792:436-452. Cham: Springer. doi: 10.1007/978-3-030-77857-6\_31

McKinney A, Hotson KL, <sup>uc</sup>Ahmed ZB, Días C, Ben Shalom D, Weisblatt E JL, Foster J, Villar SS, Murphy S, **Belmonte MK**. Overcoming hurdles to intervention studies with autistic children with profound communication difficulties and their families. *Autism* 2021; **25**(6):1627-1639. doi: 10.1177/1362361321998916

Chakrabarty M, Dasgupta G, Acharya RP, Chatterjee SS, Guha PC, **Belmonte MK**, Bhattacharya K. Validation of Revised Reading the Mind in the Eyes test (RMET-R) in the Indian (Bengali) population: A preliminary study. *Indian Journal of Psychiatry* 2021; **63**(1):74-79. doi: 10.4103/psychiatry.indianjpsychiatry\_967\_20

\*\*\*Paul S, Arora A, Midha R, <sup>uc</sup>Vu D, Roy PK, **Belmonte MK**. Autistic traits and individual brain differences: Functional network efficiency reflects attentional and social impairments, structural nodal efficiencies index systemising and theory-of-mind skills. *Molecular Autism* 2021; **12**:3. doi: 10.1186/s13229-020-00377-8

McKinney A, Hotson KL, Rybicki A, Weisblatt E JL, Días C, Foster J, Villar SS, Murphy S, **Belmonte MK**. Point OutWords: Protocol for a feasibility randomised controlled trial of a motor skills intervention to promote communicative development in non-verbal children with autism. *Trials* 2020; **21**:109. doi: 10.1186/s13063-019-3931-1

Weisblatt E JL, Langensiepen CS, Cook B, <sup>uc</sup>Días C, Plaisted Grant K, <sup>pg</sup>Dhariwal M, <sup>uc</sup>Fairclough MS, <sup>uc</sup>Friend SE, <sup>uc</sup>Malone AE, <sup>uc</sup>Varga-Elmiyeh B, Rybicki A, Karanth P, **Belmonte MK**. A tablet computer-assisted motor and language skills training programme to promote communication development in children with autism: Development and pilot study. *International Journal of Human-Computer Interaction* 2019; **35**(8):643-665. doi: 10.1080/10447318.2018.1550176

Sumich AL, Anderson JD, Howard CJ, Heym N, Castro A, Baker J, **Belmonte MK**. Reduction in lower-alpha power during Ganzfeld flicker stimulation is associated with the production of images and trait positive schizotypy. *Neuropsychologia* 2018; **121**:79-87. doi: 10.1016/j.neuropsychologia.2018.11.004

<sup>uc</sup>Deane R, **Belmonte MK**. Caregiver involvement makes the difference between repetitive behaviours and engaged learning in a computer-assisted therapy for autism. In: Standen PJ, Cobb S, Brown DJ, Gamito P, Appiah K (eds), *Proceedings of the 12th International Conference on Disability, Virtual Reality and Associated Technologies*. Reading: University of Reading, 2018, pp 204-208.

Howard CJ, Boulton H, Brown E, Arnold CPA, **Belmonte MK**, Mitra S. Engagement of the motor system in position monitoring: Reduced distractor suppression and effects of internal representation quality on motor kinematics. *Experimental Brain Research* 2018; **236**(5):1445-1460. doi: 10.31234/osf.io/c9smf

<sup>pg</sup>Wilson Rogers LP, Robertson J, Marriott M, **Belmonte MK**. Social cognition in intellectually disabled male criminal offenders: A deficit in affect perception? *Journal of Intellectual Disabilities and Offending Behaviour* 2018; **9**(1):32-48. doi: 10.1108/JIDOB-09-2017-0022

\*\*\*Howard CJ, Arnold CPA, **Belmonte MK**. Slower resting alpha frequency is associated with superior localisation of moving targets. *Brain and Cognition* 2017; **117**:97-107. doi: 10.1016/j.bandc.2017.06.008

\*\*\*Rudra A, **Belmonte MK**, Soni P, Banerjee S, Mukerji S, Chakrabarti B. Prevalence of Autism Spectrum Disorder and autistic symptoms in a school-based cohort of children in Kolkata, India. *Autism Research* 2017; **10**(10):1597-1605. doi: 10.1002/aur.1812

Rudra A, Ram JR, Loucas T, **Belmonte MK**, Chakrabarti B. Bengali translation and characterisation of four cognitive and trait measures for autism spectrum conditions in India. *Molecular Autism* 2016; **7**:50. doi: 10.1186/s13229-016-0111-y

**Belmonte MK**, Weisblatt E JL, Rybicki A, Cook B, Langensiepen CS, Brown DJ, <sup>pg</sup>Dhariwal M, Saxena-Chandhok T, Karanth P. Can computer-assisted training of prerequisite motor skills help enable communication in people with autism? *2016 International Conference on Interactive Technologies and*

*Games*, pp 13-20. Los Alamitos, California: IEEE Computer Society Conference Publishing Services, 2016. doi: 10.1109/iTAG.2016.10

(In 2014-2015 I took a hiatus from research following the birth of my son.)

**Belmonte MK**, Saxena-Chandhok T, Cherian R, Muneer R, George L, Karanth P. Oral motor deficits in speech-impaired children with autism. *Frontiers in Integrative Neuroscience* 2013; **7**:47. doi: 10.3389/fnint.2013.00047

Valla JM, <sup>uc</sup>Maendel JW, Ganzel BL, <sup>uc</sup>Barsky AR, **Belmonte MK**. Autistic trait interactions underlie sex-dependent facial recognition abilities in the normal population. *Frontiers in Personality Science and Individual Differences* 2013; **4**:286. doi: 10.3389/fpsyg.2013.00286

<sup>uc</sup>Chen GM, <sup>uc</sup>Yoder KJ, Ganzel BL, Goodwin MS, **Belmonte MK**. Harnessing repetitive behaviours to engage attention and learning in a novel therapy for autism: An exploratory analysis. *Frontiers in Educational Psychology* 2012; **3**:12. doi: 10.3389/fpsyg.2012.00012

<sup>uc</sup>Yoder KJ, **Belmonte MK**. Combining computer game-based behavioural experiments with high-density EEG and infrared gaze tracking. *Journal of Visualized Experiments* 2010; **46**:2320. doi: 10.3791/2320

\*\*\*Valla JM, Ganzel BL, <sup>uc</sup>Yoder KJ, <sup>uc</sup>Chen GM, <sup>uc</sup>Lyman LT, <sup>uc</sup>Sidari AP, <sup>uc</sup>Keller AE, <sup>uc</sup>Maendel JW, <sup>uc</sup>Perlman JE, <sup>uc</sup>Wong SKL, **Belmonte MK**. More than maths and mindreading: sex differences in empathising/systemising covariance. *Autism Research* 2010; **3**(4):174-184. doi: 10.1002/aur.143

\*\*\***Belmonte MK**, Gomot M, Baron-Cohen S. Visual attention in autism families: ‘unaffected’ sibs share atypical frontal activation. *Journal of Child Psychology and Psychiatry* 2010; **51**(3):259-276. doi: 10.1111/j.1469-7610.2009.02153.x

\*\*\*Gomot M, **Belmonte MK**, Bullmore ET, Bernard FA, Baron-Cohen S. Brain hyper-reactivity to auditory novel targets in children with high-functioning autism. *Brain* 2008; **131**(9):2479-2488. doi: 10.1093/brain/awn172

Bonneh YS, **Belmonte MK**, Pei F, Iversen PE, Kenet T, Akshoomoff NA, Adini Y, Simon HJ, Moore CI, Houde JF, Merzenich MM. Cross-modal extinction in a boy with severely autistic behavior and high verbal intelligence. *Cognitive Neuropsychology* 2008; **25**(5):635-652. doi: 10.1080/02643290802106415

\*\*\*Butler J, MacCallum I, Kleber M, Shlyakhter IA, **Belmonte MK**, Lander ES, Nusbaum C, Jaffe DB. ALLPATHS: de novo assembly of whole-genome shotgun microreads. *Genome Research* 2008; **18**(5):810-820. doi: 10.1101/gr.7337908

**Belmonte MK**, Carper RA. Monozygotic twins with Asperger syndrome: differences in behaviour reflect variations in brain structure and function. *Brain and Cognition* 2006; **61**(1):110-121. doi: 10.1016/j.bandc.2005.12.010

\*\*\*Gomot M, Bernard FA, Davis MH, **Belmonte MK**, Ashwin C, Bullmore ET, Baron-Cohen S. Change detection in children with autism: an auditory event-related fMRI study. *NeuroImage* 2006; **29**(2):475-484. doi: 10.1016/j.neuroimage.2005.07.027

Schmidt GR, **Belmonte MK**. Scalable, content-based audio identification by multiple independent psychoacoustic matching. *Journal of the Audio Engineering Society* 2004; **52**(4):366-377.

\*\*\***Belmonte MK**, Yurgelun-Todd DA. Functional anatomy of impaired selective attention and compensatory processing in autism. *Cognitive Brain Research* 2003; **17**(3):651-664. doi: 10.1016/S0926-6410(03)00189-7

\*\*\***Belmonte MK**, Yurgelun-Todd DA. Anatomic dissociation of selective and suppressive processes in visual attention. *NeuroImage* 2003; **19**(1):180-189. doi: 10.1016/S1053-8119(03)00033-8

**Belmonte MK**, Yurgelun-Todd DA. Permutation testing made practical for functional magnetic resonance image analysis. *IEEE Transactions on Medical Imaging* 2001; **20**(3):243-248. doi: 10.1109/42.918475

**Belmonte MK**. Abnormal attention in autism shown by steady-state visual evoked potentials. *Autism* 2000; **4**(3):269-285. doi: 10.1177/1362361300004003004

**Belmonte MK**. Shifts of visual spatial attention modulate a steady-state visual evoked potential. *Cognitive Brain Research* 1998; **6**(4):295-307. doi: 10.1016/S0926-6410(98)00007-X

RESEARCH  
REVIEWS

**Belmonte MK**, Egaas B, Townsend J, Courchesne E. NMR intensity of corpus callosum differs with age but not with diagnosis of autism. *NeuroReport* 1995; **6**(9):1253-1256.

**Belmonte MK**. A practical attribute grammar circularity test. Cornell University Department of Computer Science Technical Report 88-920 (June 1988).

Mukherjee D, Bhavnani S, Lockwood Estrin G, Rao V, Dasgupta J, Irfan H, Chakrabarti B, Patel V, **Belmonte MK**. Digital tools for direct assessment of autism risk during early childhood: A systematic review. *Autism* 2024; **28**(1):6-31. doi: 10.1177/13623613221133176

**Belmonte MK**. Motor symptoms in the ASD diagnostic criteria: A conservative perspective. *Autism Research* 2022; **15**(9):1582-1584. doi: 10.1002/aur.2793

**Belmonte MK**. Other and other waters in the river: Autism and the futility of prediction. *Behavioral and Brain Sciences* 2020; **43**:e122. doi: 10.1017/S0140525X19003194

**Belmonte MK**. How individuals and institutions can learn to make room for human cognitive diversity: A personal perspective from my life in neuroscience. In: Bertilsson Rosqvist H, Chown N, Stenning A (eds), *Neurodiversity Studies: A New Critical Paradigm*. London: Routledge, 2020, pp 172-190. doi: 10.4324/9780429322297-16

Iao L, **Belmonte MK**, Dillon G, Grayson A, Lamb S. Atypical child development. In: Banyard P, Normann C, Dillon G, Winder B (eds), *Essential Psychology* 3/e. London: Sage, 2019, pp 467-488.

**Belmonte MK**. Obligatory processing of task-irrelevant stimuli: A hallmark of autistic cognitive style within and beyond the diagnosis. *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging* 2017; **2**(6):461-463. doi: 10.1016/j.bpsc.2017.07.002

Dasgupta J, Bhavnani S, Lockwood Estrin G, Mukherjee D, Banerjee A, **Belmonte MK**, Chakrabarti B, Divan G, Dawson G, Johnson MH, McPartland JC, Singh NC, Patel V. Translating neuroscience to the front lines: Point-of-care detection of neuropsychiatric disorders. *Lancet Psychiatry* 2016; **3**(10):915-917. doi: 10.1016/S2215-0366(16)30186-9

\*\*\*Valla JM, **Belmonte MK**. Detail-oriented cognitive style and social communicative deficits, within and beyond the autism spectrum: Independent traits that grow into developmental interdependence. *Developmental Review* 2013; **33**(4):371-398. doi: 10.1016/j.dr.2013.08.004

**Belmonte MK**. The autism spectrum as a source of cognitive and cultural diversity. *Ranchi Institute of Neuro-Psychiatry and Allied Sciences Journal* 2011; **3**:S46-S54.

Lombardo MV, Baron-Cohen S, **Belmonte MK**, Chakrabarti B. Neural endophenotypes for social behaviour in autism spectrum conditions. In: *Handbook of Social Neuroscience* (J Decety & J Cacioppo, eds.). Oxford: Oxford University Press, 2011, pp 830-847.

uoYoder KJ, **Belmonte MK**. Information processing and integration. In: *Autism Spectrum Disorders* (DG Amaral, G Dawson & DH Geschwind, eds.). New York: Oxford University Press, 2011, pp 1010-1027.

**Belmonte MK**. Neurobiology of narrative. In: *The Cambridge Encyclopedia of the Language Sciences* (P Hogan, ed.). Cambridge: Cambridge University Press, 2011, pp 538-542.

**Belmonte MK**. What's the story behind 'theory of mind' and autism? *Journal of Consciousness Studies* 2009; **16**(6-8):118-139.

**Belmonte MK**, Bonnef YS, Adini Y, Iversen PE, Akshoomoff NA, Kenet T, Moore CI, Simon HJ, Houde JF, Merzenich MM. Autism overflows with syntheses. *Neuropsychology Review* 2009; **19**(2):273-274. doi: 10.1007/s11065-009-9099-9

Baron-Cohen S, Golan O, Chakrabarti B, **Belmonte MK**. Social cognition and autism spectrum conditions. In: *Social Cognition and Developmental Psychopathology* (C Sharp, P Fonagy, I Goodyer, eds.). Oxford: Oxford University Press, 2008, pp 29-56.

**Belmonte MK**. The 'mechanism' of human cognitive variation. *Behavioral and Brain Sciences* 2008; **31**(3):263-264. doi: 10.1017/S0140525X0800424X 12.818.

**Belmonte MK**. Does the experimental scientist have a 'theory of mind'? *Review of General Psychology* 2008; **12**(2):192-204. doi: 10.1037/1089-2680.12.2.192

\*\*\***Belmonte MK**, Mazziotta JC, Minshew NJ, Evans AC, Courchesne E, Dager SR, Bookheimer SY, Aylward EH, Amaral DG, Cantor RM, Chugani DC, Dale AM, Davatzikos C, Gerig G, Herbert MR, Lainhart JE, Murphy DG, Piven J, Reiss AL, Schultz RT, Zeffiro TA, Levi-Pearl S, Lajonchere C, Colamarino SA. Offering to share: how to put heads together in autism neuroimaging. *Journal of Autism and Developmental Disorders* 2008; **38**(1):2-13. doi: 10.1007/s10803-006-0352-2

\*\*\*\***Belmonte MK**, Bourgeron T. Fragile X syndrome and autism at the intersection of genetic and neural networks. *Nature Neuroscience* 2006; **9**(10):1221-1225. doi: 10.1038/nn1765

**Belmonte MK**. Abnormal visual motion processing as a neural endophenotype of autism. *Cahiers de Psychologie Cognitive / Current Psychology of Cognition* 2005; **23**(1-2):65-74.

\*\*\*Baron-Cohen S, Knickmeyer RC, **Belmonte MK**. Sex differences in the brain: implications for explaining autism. *Science* 2005; **310**(5749):819-823. doi: 10.1126/science.1115455 Comment in *Science* 2006; **311**(5763):952.

\*\*\*Baron-Cohen S, **Belmonte MK**. Autism: a window onto the development of the social and the analytic brain. *Annual Review of Neuroscience* 2005; **28**:109-126. doi: 10.1146/annurev.neuro.27.070203.144137

\*\*\*\***Belmonte MK**, Allen G, Beckel-Mitchener A, Boulanger LM, Carper RA, Webb SJ. Autism and abnormal development of brain connectivity. *Journal of Neuroscience* 2004; **24**(42):9228-9231. doi: 10.1523/JNEUROSCI.3340-04.2004

\*\*\*\***Belmonte MK**, Cook EH Jr, Anderson GM, Rubenstein JLR, Greenough WT, Beckel-Mitchener A, Courchesne E, Boulanger LM, Powell SB, Levitt PR, Perry EK, Jiang Y, DeLorey TM, Tierney E. Autism as a disorder of neural information processing: directions for research and targets for therapy. *Molecular Psychiatry* 2004; **9**(7):646-663. doi: 10.1038/sj.mp.4001499

**Belmonte MK**, Carper RA. Neuroanatomical and neurophysiological clues to the nature of autism. In: *Neuroimaging in Child Neuropsychiatric Disorders* (Bernard Garreau, ed.). Paris: Springer, 1998, pp 157-171.

#### ESSAYS

**Belmonte MK**. The Father, the Foreigner, and the Deep Wide Water: A Family History with Autism. *Families: a journal of representations* (Kolkata) 2011; **8**(2)-**9**(1):109-123.

**Belmonte MK**. Autism Connects Us. In: *Siblings and Autism: Stories Spanning Generations and Cultures* (Debra Cumberland & Bruce Mills, eds.). London: Jessica Kingsley, 2011, pp 93-111.

**Belmonte MK**. Human, but More So: What the Autistic Brain Tells Us about the Process of Narrative. In: *Autism and Representation* (Mark Osteen, ed.). New York: Routledge, 2008, pp 166-179. doi: 10.4324/9780203935088-15

**Belmonte MK**. The Yellow Raincoat. In: *Evocative Objects: Things We Think With* (Sherry Turkle, ed.). Cambridge, Massachusetts: MIT Press, 2007, pp 70-75.

Book reviewer for *The Washington Post*, *The Washington Times*, *The Boston Book Review*, and *The Keats-Shelley Journal*.

#### BOOKS

**Belmonte MK**. *Computer Science, and Why: Science, Language, and Literature*. Unionville, New York: Trillium Press, 1993.

**Belmonte MK**. *Full Abstraction*. Ithaca New York: Pathos Press, 1992.

CONFERENCE PRESENTATIONS ‘Touchscreen Training of Fine Motor Skills in Autistic Children with Impaired Speech and Motor Function but Spared Receptive Language’, Experimental Psychology Society, 8 July 2021

‘Touchscreen Training Increases Smoothness of Hand Movements in Autistic Children with Impaired Speech and Motor Function’, Association for Psychological Science, 26 May 2021

‘Verbal, Social and Motor Skills in Minimally-speaking Autistic Children: Baseline Profiles and Intervention Effects on Observational Assessments and Movement Kinematics’, International Society for Autism Research, 5 May 2021



- ‘Skills profiles in minimally-speaking autistic children: Functional assessments of motor and language ability and touchscreen interactions’, Society for Neuroscience, 11 January 2021
- ‘Feasibility Results of a Randomised Controlled Trial of Point OutWords: A Caregiver-Delivered, iPad-Assisted Motor Skills Therapy to Develop Typed Communication in Non-Speaking Children with Autism’, Autistica, 9 July 2020
- ‘Using Naturalistic Interactions in Clinical Trial Design for Minimally Verbal Autism: Lessons from a Motor Communication Skills Intervention’, International Society for Autism Research, 3 June 2020
- ‘Point OutWords, a Motor Skills Intervention to Promote Communication in NonVerbal Children with Autism’, British Psychological Society, Stoke-on-Trent, 4 September 2019
- ‘Computer-aided therapy to promote motor development in autistic users’, National Institute for Health Research - Clinical Research Network Eastern, Child and Youth Research Collaboration Event, Girton College, Cambridge, 29 May 2019
- ‘Motor Skills Training to Develop Communication in an Expressive Language Impaired Subtype of Autism’, International Convention of Psychological Science, Paris, 9 March 2019
- ‘Point OutWords: A Caregiver-Delivered, Computer-Assisted Intervention for Autism in India and Beyond’, International Society for Autism Research, Montréal, May 2019
- ‘Clinical Priorities in Autism: Sleep, Sensorimotor Control and Communication’, International Convention of Psychological Science, Paris, March 2019
- ‘Open-Source Tools for Autism: Diagnostic Screening, Research Evaluation, and Communication Therapy’, British Psychological Society, Nottingham, May 2018
- ‘Sexual Orientation Determines Early Attentional Enhancement of Preferred Sexual Stimuli’, Experimental Psychology Society, Leicester, April 2018
- ‘Individual Variations in Autistic Traits are Reflected in Brain Network Topologies: Behavioural, Psychometric, and Neuroimaging Assays’, Experimental Psychology Society, Leicester, April 2018
- ‘Can Computer-Assisted Training of Prerequisite Motor Skills Help Enable Communication in People with Autism?’, International Society for Autism Research, San Francisco, 2017
- ‘Autistic and typical individual differences in facial emotion perception and other social cognitive traits correlate with cognitive event-related potentials in two non-social target detection tasks: A role for domain-general cognitive control?’, British Psychological Society, Nottingham, April 2016
- ‘Cognitive Neurophysiological Predictors of Individual Differences in Social Responsiveness’, British Society for the Psychology of Individual Differences, Nottingham, April 2016
- ‘Frontal N250 is Generated near the Temporo-Parietal Junction and Reflects Recognition of Emotions from Both Faces and Non-Social Objects’, British Psychological Society (Cognitive Section), Nottingham, September 2014
- ‘Design of a Touch-Screen Computer Application to Develop Foundational Motor Communicative Skills’, International Society for Autism Research, San Sebastián, May 2013
- ‘Abnormal Attentional Modulation of Visual Perception in Autism and Clinically Unaffected Sibs’, British Association for Cognitive Neuroscience, Nottingham, April 2013
- ‘Brain Mechanisms of Perceptual Construal and Psychological Distance, across the Autism Spectrum and across Cultures’, 19<sup>th</sup> Biennial Meeting of the International Society for Developmental Neuroscience, Mumbai, January 2012
- ‘Can Efficiency of Frontal Activation Rescue Unaffected Sibs from the Autism Phenotype?’, Society for Neuroscience, Chicago, October 2009
- ‘An Extensible, Experimental Video Game for Autism Research and Therapy’, International Society for Autism Research, Chicago, May 2009
- ‘Cognitive and Physiological Variation within and beyond the Autism Phenotype’, International Conference on Innovative Research in Autism, Tours, April 2009
- ‘A New Way to Study and to Treat Autism Spectrum Conditions: Video Games for Ecologically Valid Measurement and Therapy’, International Society for Autism Research, London, May 2008

- ‘Visual Attention in Autism Families: “Unaffected” Sibs Share Atypical Frontal Activation but not Atypical Functional Connectivity’, Society for Neuroscience, San Diego, November 2007
- ‘Who in a Susceptible Family Develops Autism? A Question of Functional Connectivity’, International Society for Autism Research, Seattle, May 2007
- ‘Does the Experimental Scientist Have a “Theory of Mind”?’’, From the Brain to Human Culture, Bucknell University, April 2007
- ‘Hypoactivation and Hypoconnectivity of Integrative Brain Regions in a Non-Social Attention Task in Autism-Spectrum Boys and their Normal Brothers’, International Society for Autism Research, Montréal, June 2006
- ‘Autism and the Narrative Organisation of Perceptual and Cognitive Experience’, Literature and the Cognitive Sciences, Storrs, Connecticut, April 2006
- ‘Human, but More So: What the Autistic Brain Tells Us about the Process of Narrative’, Autism and Representation: Writing, Cognition, Disability (Society for Critical Exchange), Cleveland, October 2005
- ‘Brain Connectivity and Narrative Coherence in Autism’, Autism Cymru (Cardiff), October 2005
- ‘Normal Sibs of Children with Autism Share Negative Frontal but not Positive Sensory Abnormalities: Preliminary Evidence from fMRI during Processing of Visual Distractors’, Society for Neuroscience, San Diego, October 2004
- ‘Autism and Abnormal Development of Brain Connectivity: Functional Consequences and Possible Neural Antecedents’ (symposium chair), Society for Neuroscience, San Diego, October 2004
- ‘Small-world Network Properties and the Emergence of Social Cognition: Evidence from Functional Studies of Autism’, Third International Conference on Development and Learning, San Diego, October 2004
- ‘fMRI of Event-Related Response to Visual Distractors in Autism’, International Society for Autism Research, Sacramento, May 2004
- ‘Functional Anatomy of Compensatory Processing in Autistic Attention: Complementary Roles of Selection and Suppression’, International Society for Autism Research, Orlando, November 2002
- ‘Enhancement and Suppression during Shifting of Visual Spatial Attention: An fMRI Study of Normal and Autistic Responses’, Society for Neuroscience, San Diego, November 2001
- ‘fMRI Evidence for Generalised Arousal as a Substitute for Early Selection in Autism during Conditions of Shifting Visual Spatial Attention’, International Society for Autism Research, San Diego, November 2001
- ‘An Optimised Permutation Test for fMRI Analysis’, International Society for Magnetic Resonance in Medicine, Glasgow, April 2001
- ‘An Optimised Permutation Test for fMRI Analysis’, fMRI Experience III, King’s College London, April 2001
- ‘Posterior Cortical Activation in Directed Attention: An fMRI Study’, Cognitive Neuroscience Society, New York, April 2001
- ‘Physiological Evidence for Loss of Fine Attentional Control in Autism’, Sixth Autism-Europe Congress, Glasgow, May 2000
- ‘Neuroscience for High-Ability Secondary School Students’, Society for Neuroscience, New Orleans, October 1997
- ‘Abnormal Attention in Autism Demonstrated by Lack of Modulation of a Steady-State Visual Evoked Potential’, Cognitive Neuroscience Society, Boston, April 1997
- ‘Modulation of a Steady-State Visual Evoked Potential by Shifts of Visual Spatial Attention in Normal Subjects and in People with Autism’, Society for Neuroscience, Washington, November 1996
- ‘Shifts of Visual Spatial Attention Modulate a Steady-State Visual Evoked Potential’, Cognitive Neuroscience Society, San Francisco, April 1996

Center for Mind and Brain, University of California Davis, 5 November 2021

Co-Developing Assessments and Treatments that work with– not against– People with Autism  
India Autism Center, Kolkata, 10 January 2020

Dimensional Relationships between Autistic Traits and Brain Structure and Function  
Inter University Centre for Biomedical Research and Super Specialty Hospital, Mahatma Gandhi  
University, Kottayam, 20 December 2018

Genes, Brains and Autistic Traits

Global Autism Convention, St John's National Academy of Health Sciences, Bangalore, 11 December  
2018

Point OutWords: A Caregiver-Delivered, Computer-Assisted Motor and Communicative Skills Therapy  
for Autism, Developed in India for the World

Global Autism Convention, St John's National Academy of Health Sciences, Bangalore, 10 December  
2018

Point OutWords: A Caregiver-Delivered, Computer-Assisted Motor and Communicative Skills Therapy  
for Autism

"Sapienza" Università di Roma, 26 October 2018

Autism as a Dimensional Construct, from Cognitive Neurophysiology to Behaviour

"Sapienza" Università di Roma, 25 October 2018

It's about Communication: India's Achievements, Promise, and Challenges in Autism Science

Indian Speech and Hearing Association, Kolkata, 5 January 2017

Teaching and Learning from Students with Autism

Open Mind, Thrissur, 21 December 2016

Computer-Assisted Training for People with Autism who Lack Communicative Speech: Can Remediating  
Sensorimotor Dyscontrol Open a 'Back Door' to Social Communicative Development?

Autism Research Centre, University of Cambridge, 17 March 2016

Subtyping Autism in Diagnosis and Therapy: Remediating Sensorimotor Dyscontrol Opens a 'Back  
Door' to Social Communication

University of Sheffield, 26 February 2016

Autism as a Difference of Neural Connectivity: An Update on Causes and Treatments after a Decade of  
Research

"Psychological Perspectives on Autism", University of East Anglia, 8 June 2015

Autism, Cognitive Integration, and the Integration of the Cognitive Sciences

Indian Institute of Technology Gandhinagar, 16 August 2013

Autistic Behavioural and Physiological Traits Index Emergent Social and Non-Social Cognitive Differences  
across the Autism Spectrum, between the Sexes, and between Cultures

Institut Pasteur, 31 May 2013

Autism and Human Cognitive Diversity, from Physiology to Psychology to Pedagogy

Autism Research Centre, University of Cambridge

29 June 2012

Autism from Synapse to Cognition, Behaviour, and Therapy

"International Conference on Innovative Research in Autism",

Tours, France, 31 May 2012

Autism Theories and Therapies

V-Excel Centre for Research and Rehabilitation, Shastri Nagar, Chennai, 24 March 2012

Autism as Scientist and Son

V-Excel Trust, Mandaveli, Chennai, 17 March 2012

Autism: Assumptions of Synchrony and Simultaneity Underlie (Therapists') Deficits in Perspective-  
Taking

Department of Speech Language and Hearing Sciences, Sri Ramachandra University, Porur, Chennai,

13 March 2012

Understanding Autistic Brains Shows How to Work with (and not against) Autistic Minds  
WE CAN, Blue Beach, Chennai, 11 March 2012

How Teachers Change Brains

V-Excel Trust, Mandaveli, Chennai, 10 March 2012

Biological and Cultural Determinants of Autism, from Genes to Neural Information Processing to Behaviour

Heritage Institute of Technology, Kolkata, 3 February 2012

आतिस्तिक् मसाला: Biology's Interaction with Cultural and Social Context, from End to End of the Autism Spectrum

Ummeed Child Development Centre, Mumbai, 14 January 2012

Autism Susceptibilities Underlie Broader Human Cognitive Variation, from Genes to Synapses to Behaviour

"Frontiers in Neuroscience and Genetics",

Manovikas Kendra Rehabilitation and Research Institute for the Handicapped, Kolkata,

23 December 2011

Autism and the Battle of the Self: How the Human Brain and Mind Make Sense of a Disconnected World  
Autistic Children's Welfare Foundation School, Chittagong, 1 December 2011

The Same Genes that Make Autism Make Engineers: The Double-Edged Sword of Human Cognitive Diversity

Autistic Children's Welfare Foundation School, Chittagong, 30 November 2011

Autism Theory and Therapies

Autism Society of West Bengal, Kolkata, 26 November 2011

Autism Theory and Therapy

The Com DEALL Trust, Bangalore, 21 November 2011

Culture and Cognition: A View from Clinical and Typical Cognitive Variations

11<sup>th</sup> Biennial National Conference of the Indian Association for Child and Adolescent Mental Health,  
Saint John's National Academy of Health Sciences, Bangalore, 18 November 2011

Electroencephalography in Pædiatric Age Groups and its Clinical Utility

11<sup>th</sup> Biennial National Conference of the Indian Association for Child and Adolescent Mental Health,  
St John's Medical College, Bangalore, 16 November 2011

Genes for Autism, Genes for Engineering: How Ability and Disability Come in the Same Package

UDBHAAS Child Development Centre, Paikpara, Kolkata, 5 November 2011

Connecting Autism

India Habitat Centre, Delhi, 1 November 2011

Perceptual Integration in Autism: Physiological Theory, Behavioural Observation, and Therapeutic Intervention

29<sup>th</sup> Annual Meeting of the Indian Academy of Neurosciences, Delhi, 31 October 2011

The Autism Spectrum as a Source of Cognitive and Cultural Diversity

"International Conference on Transcultural Psychiatry",

Ranchi Institute of Neuro-Psychiatry and Allied Sciences, 24 September 2011

Autism and Asperger Syndrome at the Intersection of Biology and Culture

Indian Association of Biomedical Scientists (Kolkata chapter),

KPC Medical College, Jadavpur, Kolkata, 20 August 2011

"Neuroimaging – Experimental Design and Analysis Tools",

Centre of Behavioural and Cognitive Sciences, University of Allahabad, 22-23 July 2011

Neural and Narrative Connectivity in Autism, from Theory to Therapy

"Embodied and Narrative Practices: Clinical and Practical Applications",

University of Hertfordshire, 12 July 2011

Is the Science of Autism the Science of Human Cognitive Diversity?

Department of Psychology, Georgetown University, 23 June 2011

Categorical and Dimensional Autistic Traits, and Global and Local Network Entropies: Cognitive and Neural Variation within and beyond the Autism Spectrum

Centre for Neuroscience, Indian Institute of Science, Bangalore, 18 May 2011

- Genetics and Neural Computation Bind Autism to Human Cognitive Diversity
- Computer Game Environments for Experimental Control with Ecological Validity

Indian Institute of Science Education and Research, Pune, 15-16 April 2011

Understanding Autistic Behaviour as a Normal Human Reaction to a Disconnected Perceptual and Cognitive World

Forum for Autism, Mumbai, 8 April 2011

Autism– What Functional Brain Imaging Can and Cannot Tell Us about Perception, Cognition and Consciousness

Bhaktivedanta Institute, Mumbai, 8 April 2011

Listening to Autism: Taking Account of Each Individual's Biology, Cognition, and Learning Style

Ummeed Child Development Centre, Mumbai, 7 April 2011

Autism Lights the Way from Genetics and Neural Computation to the Twenty-First-Century Science of Human Cognitive Diversity

Tata Institute of Fundamental Research, Mumbai, 6 April 2011

The Quintessence of Humanity in Autistic Genes, Brains, and Minds

National Conference on Autism, Institute For Communicative And Cognitive Neurosciences, Shoranur, Kerala, 2 April 2011

Variations in Neural Information Processing Determine Cognitive Type within and beyond the Autism Spectrum

Centre for Neuroscience, Department of Biotechnology, Cochin University of Science and Technology, 28 March 2011

Cognitive Neurophysiology of Autism

Amrita Institute of Medical Sciences, Kochi, Kerala, 28 March 2011

- Significance-Testing Physiological Time Series with Resampling Statistics
  - Fundamentals of Cognitive Electroencephalography
  - Event-Related Data Analysis: A Practical Tutorial Using EEGLAB
- Centre of Behavioural and Cognitive Sciences, University of Allahabad, 3-5 February 2011

Harnessing Within-Group Variance to Understand Autistic Neurophysiology and Cognition

Indian Statistical Institute, Kolkata, 2 February 2011

What the Neurophysiology of Autism Tells Us about the Nature of Mental Representation

Centre for Cognitive Science, Jadavpur University, 1 February 2011

Human, but More So: Autism, Level of Construal, and Lacan's « Meurtre de la Chose »

Department of Philosophy, University of Hyderabad, 13 January 2011

Serious Games as a Tool for Measuring and Modifying Human Cognition

International Institute of Information Technology, Hyderabad, 12 January 2011

Autistic Disorder or Autistic Variation? Behaviour, Physiology and Genetics Entwine Autism with Human Cognitive Diversity

Centre for Neural and Cognitive Sciences and Department of Philosophy, University of Hyderabad, 10 January 2011

Computer Games Combine Experimental Control with Ecological Validity in Measurement and Training of Cognitive Skills

Centre for Neural and Cognitive Sciences, University of Hyderabad, 6 January 2011

Physiological Indicators of Low Level of Construal Unify Social and Non-Social Autistic Cognitive Traits: fMRI, EEG and Behavioural Studies

International Conference on Recent Advances in Cognitive Science,

Department of Psychology, Banares Hindu University, Varanasi, 19 December 2010  
Understanding Human Cognitive Variation within and beyond the Autism Spectrum –  
a Paradigm for the Multivariate Cognitive Neuroscience of the Twenty-First Century  
International Conference on Cognitive Development,  
Centre of Behavioural and Cognitive Sciences, University of Allahabad, 13 December 2010  
Neuroimaging of Brain-Behaviour Correlations within and beyond the Autism Spectrum:  
Common Substrates for Social and Non-Social Cognitive Skills  
5<sup>th</sup> Congress of the Federation of Asian and Oceanian Neuroscience Societies, Lucknow,  
28 November 2010  
The Autism Spectrum as Clinical Disease and as Human Diversity  
Centre for Studies in Science Policy, Jawaharlal Nehru University, 10 November 2010  
Autism, Part and Parcel of Human Cognitive Diversity  
British Psychological Society (Developmental Psychology Section), London, 14 September 2010  
Autism Is a Foundation of Human Cognitive Diversity  
Program in Neuroscience, Tulane University, 9 September 2010  
Human Cognitive Diversity within and beyond the Autism Spectrum  
The Groden Center, Providence, Rhode Island, 18 August 2010  
Dimensional and Emergent Aspects of Human Cognitive Variation within and beyond the Autism  
Spectrum  
New York State Institute for Basic Research in Developmental Disabilities, 17 August 2010  
Behavioural and Neural Variation within and beyond the Autism Spectrum:  
Perceptual Detail, Cognitive Distance, and Human Diversity  
Kennedy Center for Excellence in Developmental Disabilities, Vanderbilt University, 10 May 2010  
What People with Autism Spectrum Conditions Can Teach Us about How to Teach Them  
'Mind and Body in Autism,' 4<sup>th</sup> Annual Conference, Columbia University Teachers College,  
16 April 2010  
Autism as a Science and Autism in the Family, a Case of Weak Coherence  
Center for Autism and Related Disorders, Kennedy Krieger Institute, Baltimore, 15 April 2010  
All Too Human: The Autism Spectrum and Human Cognitive Diversity  
1<sup>st</sup> Annual Distinguished Lecture on Autism, Kennedy Krieger Institute, Baltimore, 15 April 2010  
Computer Game Environments for Ecologically Valid Cognitive Testing  
(or How to Study Complex Traits and Disorders by Playing Lots of Video Games)  
Department of Psychology, University of Reading, 28 January 2010  
Between Two Cultures: Autism in the Family and Autism as a Science  
Action for Autism, Delhi, 24 January 2010  
What Research Can Tell Us about Autism, and about Humanity  
Tamana School of Hope, Delhi, 23 January 2010  
How We Can Teach People with Autism, and How They Can Teach Us  
Tamana School of Hope, Delhi, 22 January 2010  
Using Behaviour and Physiology to Characterise Familial Autism Risk and Resistance  
Children First, Delhi, 20 January 2010  
Frontal Lobe Physiology and Autistic Traits within and beyond the Autism Phenotype  
National Brain Research Centre, Manesar, India, 18 January 2010  
Linking Behavioural, Physiological and Molecular Aspects of Familial Autism Risk and Resistance  
Indian Institute of Chemical Biology, Kolkata, 15 January 2010  
Human, but More So: What Autism Science and Autistic People Can Teach Us  
Manovikas Kendra Rehabilitation and Research Institute for the Handicapped, Kolkata,  
7 January 2010  
Harnessing Population Variance to Link Behaviour, Physiology and Genetics in Familial Autism Risk

and Resistance Factors

Manovikas Kendra Rehabilitation and Research Institute for the Handicapped, Kolkata,  
6 January 2010

“Autism from Childhood to Adulthood” (panelist)

Penn State Public Broadcasting,  
Pennsylvania State University, 25 March 2009

What Science Can Tell Us about Autism and What Autism Can Tell Us about Science  
Autism and Developmental Disorders Colloquium Series,  
Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, 4 March 2009

Autistic Neural Information Processing is ‘All in the Family’  
Società Italiana per la Ricerca e la Formazione sull’Autismo, Milano, 28 November 2008

Behavioural and Physiological Phenotypes in Autism Families  
Fondazione Santa Lucia, Roma, 25 November 2008

Bringing the Laboratory to Life: Computer Games as a Tool to Understand and to Develop Autistic  
Brain Function in Naturalistic Contexts  
Associazione Genitori Soggetti con Autismo, Veneto, 22 November 2008

Family Connections: Brain Wiring in Autistic and ‘Unaffected’ Sibs  
Center for Autism Research, Children’s Hospital of Philadelphia, 13 November 2008

What is Autism? Clinical Phenotypes  
Autism Speaks, Santa Monica, California, 1 June 2008

Designing Serious Video Games for Autism Research and Treatment  
Department of Information Technology, Rochester Institute of Technology, 11 April 2008

Real Skills in Imaginary Worlds: Using Video Games to Measure Cognition and Physiology in Autism  
Families  
Department of Psychiatry, Mount Sinai School of Medicine, 26 March 2008

Video Game Play as an Ecologically Valid Measure of Autistic Behaviour and Physiology  
BBN Technologies, Cambridge, Massachusetts, 10 October 2007

Fictive Worlds Bring Out Real Skills: Video Game Environments for Assessing Autistic Cognition  
Program in Interactive Media and Game Development, Worcester Polytechnic Institute, 27 September  
2007

Neural Connectivity, Narrative Connectivity, and the “Thing Itself” in Autistic Perceptual and Cognitive  
Experience

“Narrative Alternatives to Theories of Mind”, University of Hertfordshire, 15 July 2007

Who in a Susceptible Family Becomes Autistic? Connectivity in Genes, Neurones, and Cognition  
Institut Pasteur, 29 June 2007

Autistic Neural Information Processing, from Attention to Social Cognition  
Media Lab, Massachusetts Institute of Technology, 3 April 2007

Connecting Social and Non-social Phenotypes to Neural Models of Autism Susceptibility  
International Graduate School of Neuroscience, Ruhr-Universität Bochum, 5 March 2007

Neural and Narrative Connectivity in Autistic Perceptual Experience  
Humanities Center, Harvard University, 5 April 2006

What Makes a Brain Autistic? Neural and Narrative Connectivity in the Emergence of Cognition  
Department of Cognitive Science, Case Western Reserve University, 8 February 2006

What Makes a Brain Autistic? Abnormal Neural Information Processing and the Emergence of Social  
Cognition  
Department of Human Development, Cornell University, 2 February 2006

Altered Neural Information Processing in Autism: Developmental Causes and Developmental Consequences  
Institute of Cognitive Neuroscience, University College London, 4 October 2005

What Makes a Brain Autistic? Developmental Endpoints in Functional Neuroanatomy

Institut de Neurobiologie de la Méditerranée / Trends in Neurosciences 4<sup>th</sup> annual meeting, La Ciotat, France, 6 September 2005

Text, Mind, and Meaning: The Autistic Brain and What It Tells Us about the Process of Narrative  
Hampshire College, 21 February 2005

“Autism in Twentieth Century America” (guest lecturer)

Department of Science and Technology Studies, Cornell University, 2-4 November 2004 & 7 February 2006

Autism and Art

Risley College, Cornell University, 3 November 2004

Autism as a Disorder of Neural Connectivity

Fourth International Congress on Genetics and Regeneration in Neuroscience, Terni, Italy, 28 June 2004

Research into the Neurocognitive Aspects of Autism

Nancy Lurie Marks Family Foundation, Boston, 23 March 2004

Imaging Altered Information Processing in Autism

Child Study Center, Yale University, 14 February 2003

Neurophysiological Studies of Selective Attention in Autism

National Autistic Society, London, 28 October 2002

The Centre Cannot Hold: Unifying the Many Aspects of the Autism Phenotype

Cure Autism Now, Santa Monica, April 2002

Physiological Studies of Attention in Autism: Implications for Autistic Cognition and Behaviour

Cure Autism Now, Santa Monica, January 2002

Attention and Specialisation of Function in the Autistic Brain

Cure Autism Now, Illinois Chapter, September 1999

Brain Structure and Function Yield Clues to the Nature of Autism

The Autism Society of Greater Philadelphia, July 1997

A Practical Introduction to the Synthesiser Generator

The Polytechnic of Central London, September 1990