

SAMANTHA LINTON, Ph.D.

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EDUCATION

- 2015-2019 **Ph.D., Psychology (cognitive and affective neuroscience focus)**, the University of Sheffield
Dissertation: *Neural signatures of emotion processing in adolescence*
Research Group: *Developmental Affective Neuroscience Laboratory*
Primary supervisor: Dr Liat Levita, Secondary supervisor: Dr Robert Schmidt
- 2014-2015 **MSc, Psychological Research Methods (Distinction)**, the University of Sheffield
- 2010-2013 **BSc, Psychology (1st class with Honors)**, the University of Sheffield

KEY RESEARCH POSITIONS

- Sept 2020 – Present **Postdoctoral Research Fellow** – Center for Depression, Anxiety, and Stress Research, McLean Hospital/Harvard Medical School

Supervising PI: Diego Pizzagalli
Research Focus: Cross species neurophysiological indexes of reward and cognition using EEG/ERP.
- Oct 2018 – Sept 2020 **Postdoctoral Researcher and EEG Lab Manager** – Department of Psychiatry and Behavioral Sciences, UC Davis MIND Institute

Supervising PI: Tony J Simon
Research Focus: Longitudinal analysis of behavioral, physiological (cortisol) and brain responses (EEG/ERP) to identify the variations in cognitive and emotional abilities that may predict risk for (or protection against) the development of psychosis in adolescents with 22q11.2 deletion syndrome.
- Jan 2015 – Oct 2018 **Research Assistant** – Academic learning and teaching services, University of Sheffield

Conducting literature review on student engagement in academia, semi-structured interviews, thematic data analysis, and preparation of journal article.
- May 2016 – Oct 2017 **Research Assistant** – Department of Psychology, Sheffield Hallam University

Experimental design and event trigger programming using E-Prime, recruitment and data collection of 100+ participants using Neuroscan EEG system, and maintenance of large datasets.

RESEARCH SKILLS

- Expertise working with clinical and non-clinical developmental populations to examine anxiety, stress, and cognition across a range of paradigms (e.g., fear conditioning and extinction, cognitive-emotional control, multisensory integration, temporal perception).
- High-density EEG recording (Geodesics, Biosemi, and Neuroscan systems) and EEG analysis techniques (ERP, ICA, Time-frequency, Mass Univariate) using EEGLAB/ERPLAB and Brain Vision Analyzer.
- Psychophysiology recording (skin conductance responses, heart rate and facial EMG) and analysis using Biopac AcqKnowledge, PsychLab, Ledalab and Kubios software.
- Salivary cortisol collection and analysis.

- Multivariate statistics and data modeling (ANOVA, ANCOVA, MANCOVA, linear regression, and K-means clustering).
- Data analysis with R, Python, and SPSS; Stimulus presentation with Matlab, Psychtoolbox, and E-Prime.
- Experience setting up an EEG lab (Selecting appropriate lab space, installing appropriate hardware and software packages, analyzing pilot data to check for sources of noise, conducting timing tests).

HONORS, AWARDS & NOMINATIONS

2018	<i>Early Career Researcher Prize (nominated)</i> – Sparrho (SciComm platform)
2017	<i>Poster Prize in Psychology</i> - Postgraduate research student poster day
2017	<i>301 Skills Award</i> - \$630 research consumables grant
2017	<i>301 SURE Scheme Award</i> - \$1360 to cover 6-week research assistant
2016	<i>Think Ahead: SURE Scheme Award</i> - \$760 research consumables grant
2015	<i>Michael Siegal Prize for highest MSc dissertation grade</i> – University of Sheffield
2015	<i>Outstanding Performance Award for most consistently excellent MSc grades</i> - University of Sheffield
2015	<i>Student employee of the year award (nominated)</i> – University of Sheffield
2015	<i>PhD Funding Award, University of Sheffield</i> – Full fee waiver (\$19,000) for PhD
2014	<i>Postgraduate Scholarship University of Sheffield</i> – Full fee waiver (\$11,000) for MSc
2014	<i>Volunteer of the year award (nominated)</i> – Plymouth Community Healthcare
2010	<i>Eliahou Dangoor Scholarship</i> - \$1260 towards BSc study

PUBLICATIONS

Published

- 2020 Netzband, N., Ruffell, S., **Linton, S.**, Tsang, W.F., Wolff, T. Modulatory effects of ayahuasca on personality structure in a traditional framework. *Psychopharmacology*. <https://doi.org/10.1007/s00213-020-05601-0>
- 2020 **Linton, S.R.**, Popa, A.M., Luck, S.J., Bolden, K., Carter, C.S., Niendam, T.A., Simon, T.J. Neural and behavioral measures suggest that cognitive & affective functioning interactions mediate risk for psychosis-proneness symptoms in youth with chromosome 22q11.2 deletion syndrome. *American Journal of Medical Genetics Part A*. <https://doi.org/10.1002/ajmg.a.61596>
- 2020 **Linton, S.R.**, Baily, J., Nagouse, E., & Williams, H. What helps students to engage with the academic environment?. *Student Engagement in Higher Education Journal*, 3(1), 7-31. Retrieved from <https://sehej.raise-network.com/raise/article/view/970>

Under Review

- 2020 **Linton, S.R.**, Popa, A.M., Luck, S.J., Bolden, K., Angkustsiri, K., Carter, C.S., Niendam, T.A., Simon, T.J. Atypical attentional filtering of non-emotional and emotional visual information in youth with chromosome 22q11.2 deletion syndrome as indexed by event-related potentials. *Journal of Abnormal Psychology*.
- 2020 **Linton, S.R.**, & Levita, L. Potentiated Perceptual Neural Responses to Learned Threat during Pavlovian Fear Acquisition and Extinction in Adolescents. *Developmental Science*.

In Preparation

- 2020 **Linton, S.**, Bolden, K., Niendam, T.A., Walker, E.F., Simon, T.J. Cortisol shutdown as a potential biomarker for prodromal psychosis in youth with chromosome 22q11.2 deletion syndrome. *Due for submission to Psychoneuroendocrinology October 2020*.

- 2020 **Linton, S.**, & Levita, L. A systematic review of fear learning in the transition from adolescence to adulthood. *Due for submission to Developmental Science November 2020.*
- 2020 Ritter, B., Do, V.M., **Linton, S.**, Bolden, K., Niendam, T.A., Simon, T.J. Attenuated psychotic symptoms and associated variables in youth with 22q11.2 deletion syndrome.

Ad hoc reviewer for: NeuroImage: Clinical.

CONFERENCE PRESENTATIONS

Talks

- 2019 **Linton S.** Cognitive-emotional control and its relation to mental health. *22q Family Meeting*, UC Davis MIND Institute, USA, October.
- 2019 **Linton, S.** The impact of emotion on cognitive control and attentional processing in Chromosome 22q11.2 Deletion Syndrome. *Psychology Conference*, UC Davis Center for Mind and Brain, USA, May.
- 2018 **Linton, S.**, Levita, L., & Schmidt, R. Neural responses to threat in the transition from adolescence to adulthood. *Postgraduate Conference*, University of Sheffield, UK, May.
- 2016 **Linton, S.**, Stone, J., V. , Wilson, D., & Hyuk-Lee K. Fearful faces as action feedback produced an enhanced temporal recalibration effect. *PhD Conference*, Sheffield Hallam University, UK, June.
- 2016 **Linton, S.**, Baily, J., & Nagouse, E. What helps students to engage with the academic environment? *Learning and Teaching*, Sheffield, UK, January.

Poster Sessions

- 2020 **Linton, S.**, Popa, A.M., Luck, S.J., Bolden, K., Carter, C.S., Niendam, T.A., Simon, T.J. Neural and behavioral measures suggest that cognitive & affective functioning interactions mediate risk for psychosis-proneness symptoms in youth with chromosome 22q11.2 deletion syndrome. *International 22q11.2 Conference*, Croatia, June.
*Cancelled due to COVID-19
- 2020 **Linton, S.**, Luck, S.J., Bolden, K., Carter, C.S., Niendam, T.A., Walker, E.F., Simon, T.J. Relationships between cortisol stress reactivity and psychosis-proneness in 22q11.2 deletion syndrome. *International 22q11.2 Conference*, Croatia, June. *Cancelled due to COVID-19.
- 2020 Do, V.M., Ritter, B., **Linton, S.**, Bolden, K., Carter, C.S., Niendam, T.A., Simon, T.J. Examining attenuated psychotic symptoms and associated variables in youth with 22q11.2 deletion syndrome. *International 22q11.2 Conference*, Croatia, June.
*Cancelled due to COVID-19.
- 2019 Netzband, N., Ruffell, S., **Linton, S.**, Wolff, T. Modulatory effects of ayahuasca on personality structure in a traditional framework. *The Royal College of Psychiatrists International Congress*, London, UK, July.
- 2017 **Linton, S.**, & Levita, L. The effect of emotion on multisensory integration and its neural correlates. *Sheffield Neuroscience Conference*, Sheffield, UK, July.
- 2017 **Linton, S.**, & Levita, L. The effect of emotion on multisensory integration and its neural correlates. *British Neuroscience Association*, Birmingham, UK, April.

- 2017 **Linton, S.**, & Levita, L. The effect of emotion on multisensory integration and its neural correlates. *Postgraduate Research Student Poster Day*, Sheffield, UK, April.
- 2016 **Linton, S.**, Stone, J.V. , Wilson, D., & Hyuk-Lee K. Investigating visual prior entry: the effect of emotional face stimuli on temporal order perception. *British Association for Cognitive Neuroscience*, Budapest, Hungary, September.
- 2016 **Linton, S.**, Stone, J.V. , Wilson, D., & Hyuk-Lee K. Fearful faces as action feedback produced an enhanced temporal recalibration effect. *Experimental Psychology Society*, Oxford, UK, July.

SUPERVISORY EXPERIENCE

- Oct 2018 – Present Day-to-day supervision of research assistants and interns in the 22q11.2 research center and laboratory.
- Aug – Sept 2017 Supervision of high school student on a 4-week Nuffield Health research experience scheme.
- June – July 2017 Supervision of Psychology student on a 6-week Sheffield Undergraduate Research Experience (SURE) placement.
Project: *Validating a Pavlovian fear conditioning paradigm using EEG*.
- Nov - Mar 2016 Supervision of dissertation projects of two final year Psychology students (with Dr Kwang Hyuk-Lee).
B.Sc. Dissertation project: *An investigation into the behavioral effects of audio-visual information on emotion perception*.
- Sept – Oct 2015 Supervision of 2 medical students during a six-week research placement (with Dr Kwang Hyuk-Lee).
Project: *Feasibility study for the effect of emotional context on multisensory integration using EEG*.

TEACHING EXPERIENCE

- Sept 2016 – Sept 2018 **Statistics Demonstrator**, University of Sheffield, Department of Psychology
Psychology Undergraduate level statistics and research methods teaching assistant, leading lab classes and workshops (of up to 30 students per class) using SPSS.
- Apr 2016 & Apr 2017 **Psychology Tutor**, University of Sheffield, Department of Psychology
Led 10 tutorial groups for undergraduate Psychology modules covering basic neuroscience, social psychology, and the use of memory and skill in everyday life.
- Feb – Mar 2016 **Neuroanatomy Demonstrator**, University of Sheffield, The Medical School
Led human brain dissection classes to first year medical students and postgraduate students in Clinical Neurology. Classes covered the general anatomical features of the brain, the osteology of the base of the skull, brainstem and cranial nerves, cerebellum and ventricular system, and the olfactory and limbic systems.
- Feb – Mar 2016 **Ethical Research Demonstrator**, University of Sheffield, Faculty of Science
Facilitated multiple tutorial groups of 50 students over 1 semester. Topics: Scientific literature reviews and debates on key ethical issues facing scientists in the 21st century.

CLINICAL EXPERIENCE

- Nov 2013 – **Clinical Support Worker**, NHS Hospitals, UK

- Oct 2018 Worked as part of a multidisciplinary team to deliver day-to-day care to older adults with dementia and acute stroke patients. Assisted in provision of basic medical and mental health care and social support.
- Sep 2014 – **Voluntary Applied Behavioral Analysis Tutor**
Mar 2015 Designed and delivered learning and development programs for a young child with autism.
Collaborated with a consultant and lead ABA tutor to structure various tasks to improve speech, memory and pattern recognition. Engaged in continual assessment of improvements in behavior as well as monitoring opportunities for further development.
- Feb 2014 – **Voluntary Mental Health Support Worker**, Lee Mill Hospital Low Secure Unit, UK
Aug 2014 Designed and coordinated various activities to improve the lives of patients with a history of severe and enduring mental health needs including schizophrenia, borderline personality disorder, and autism spectrum disorder. Supervised day trips, art classes, cooking lessons, and mindfulness therapy.

PROFESSIONAL TRAINING AND QUALIFICATIONS

- 2019 Certified in MRI safety and operation by UC Davis Health.
- 2019 ERP trained at Steve Luck’s 10-day ERP Bootcamp at the UC Davis Center for Mind and Brain.
- 2018 Associate Fellow of the Higher Education Academy (AFHEA) – Awarded for meeting UK Professional Standards Framework for teaching and supporting learning in higher education.
- 2016 ERP trained as part of Bangor University’s ERP Summer School.

RESEARCH OUTREACH AND IMPACT

- 2019** **22q11.2 Family Meeting** (October) – Gave a talk to communicate the findings of our research to the families of the young people who are taking part in our longitudinal study of risk and protection for psychosis.
- 2019** **22q at the Zoo** (May) – Assisted in the running of this annual event to raise awareness about 22q and to provide a supportive network for families of young people with this condition.
- 2018 & 2019** **MIND Institute Patient Thank You Party** (December) – Assisted with this annual event designed to thank patients and participants in research projects across the MIND Institute.
- 2017** **University recruitment EEG demonstrations** (December) – Conducted a series of EEG demonstrations to prospective Psychology undergraduates as part of the University of Sheffield’s open days.
- 2017** **Blog Post** (November) – Interviewed by team at Sparrho, a science communication platform, when shortlisted for their early career researcher prize. Discussed my PhD research and its potential impact for informing neurobiological models of adolescence.
- 2017** **Sheffield Festival of Science and Engineering** (March) – Designed and facilitated outreach workshops in two high schools to promote the field of cognitive neuroscience. Gave EEG demonstrations to students using Emotiv headsets and also as part of a wider exhibition in Sheffield Moor Market during the Festival.
- 2016** **University recruitment presentations** (March) – Gave a series of short talks on EEG/ERP and emotion research to prospective Psychology undergraduates as part of the

University of Sheffield open days.