Emily Kate Farran

## Contact Details

Department of Psychology and Human Development Tel: +44 (0)20 7612 6272

Institute of Education University of London Email: e.farran@ioe.ac.uk

25 Woburn Square, London WC1H 0AA

**Nationality**: British **Date of Birth**: 29th August 1976

## APPOINTMENTS

October 2011 to present: Reader in Psychology, Institute of Education, University of London, UK

October 2008 to October 2011: Senior Lecturer in Psychology, Institute of Education, University of London, UK

October 2001 to September 2008: Lecturer in Psychology, University of Reading, UK.

## ACADEMIC QUALIFICATIONS

1998-2002 PhD, Department of Experimental Psychology, University of Bristol, U.K. Thesis title: Visuo-spatial Cognition in Williams syndrome. Supervised by Prof. C. Jarrold and Prof. S. Gathercole.

1995-1998 BSc (Hons.) Psychology, 2.1. University of Bristol, U.K.

## PROJECT GRANTS Value

Submitted Mareschal, D., Tolmie, A., Dumontheil, I. Porayska-Pomsta, K. Farran, E.K., Thomas, M.S.C.,

Mayer, S., Bell, D. EEF / Wellcome £1,079,520

UnLoCKE: Understanding Learning of Counterintuitive Concepts through Knowledge Interference Control in

Science and Mathematics Education

2014-2016 Farran, E.K., Karmiloff-Smith, A., Hill., E. Waterloo Foundation £40,163

 Motor development and navigation in ADHD

2014 – 17 Farran, E.K. Thomas, M. Bloomsbury PhD Studentship. £65,000

Spatial Cognition as a contributor to the development of Science, Technology, Engineering and Mathematics (STEM) skills

2013-2015 Smith, M. L., Farran E.K., Karmiloff-Smith, A. Leverhulme Trust £112, 203

Exploration of typical and atypical development of flexible face processing strategies

2012 – 13 Farran, E.K., Hudson, K.D. Autour des Williams €13, 588

Understanding Depth Perception in Williams syndrome

2012 – 13 Farran, E.K., Van Herwegen, J. British Academy £9, 960

 The use of eye-tracking to investigate landmark knowledge and route-learning strategies in typical and atypical development

2012 – 13 Van Herwegen, J., Farran, E.K., Riby, D. British Psychological Society seminar series competition £3000 (BPS)

(co-sponsored by Williams Syndrome Foundation) £1500 (WSF)

 Neurodevelopmental disorders: Exploring sensitive methods of assessment across development

2010 – 13 Farran, E.K. Karmiloff-Smith, A. Thomas, M. Bloomsbury PhD Studentship. £65,000

The development of problem-solving abilities in typical and atypical development

2010 – 13 Farran, E.K. ESRC Collaborative studentship (CASE). £75,000

The Use of Virtual Environments to Train Environmental Learning and Route Learning in Individuals with Williams Syndrome

2010 - 14 Farran, E.K., Courbois, Y., Blades, M., Mellier, D. Sokeel, P. ESRC-ANR Bilateral Grant £483,379 (ESRC)

Investigating strategies for environmental learning in typical and atypical development £143,819 (ANR)

2009 Farran, E.K. Courbois, Y. Autour de Williams €11, 549

Utilisation des points de repere dans la navigation spatiale chez Les personnes avec un syndrome de williams : Une recherche avec

des environnements virtuels

2008 Courbois, Y., Farran, E.K. Fondation Jerome Lejeune €16, 200

Etude de la navigation spatiale chez les personnes porteuses de trisomie 21: apport des environments virtuals

2008 Farran, E.K. Courbois, Y. British Academy £7, 440

Route learning abilities in typical and atypical development; the effects of manipulating landmark salience on performance.

2006 – 10 Farran, E.K. ESRC Collaborative studentship (CASE). £70,000

Factors Affecting Visuo-spatial construction and drawing ability in Williams syndrome

2006 Farran, E. K. British Academy £7,235

Visuo-spatial perception and production in Williams syndrome.

2005-07 Farran, E.K., Blades, M., Boucher, J. ESRC £46,113

Are small- and large-scale visuo-spatial abilities dissociated in Williams syndrome?

2004-06 Farran, E.K., Brown, J., Karmiloff-Smith, A. Houston-Price, C. ESRC £48,573

Attention and perceptual grouping in infants with Williams syndrome.

2003-04 Farran, E.K., Brown, J., Karmiloff-Smith, A. Houston-Price, C. ESRC £43,060

Individual differences in attention; examining the integration between the development of attentional mechanisms and perceptual organisation in infancy.

**OTHER AWARDS**

2009 Farran, E.K. The Neil O’Connor Award for research into Developmental Disorders. Awarded by the British Psychological Society.

2005-12 Farran, E.K. Seven Undergraduate Research Bursaries.

University of Reading (1), Experimental Psychology Society (1), Nuffield Foundation (5) ~£1,500 each

2005 Stojanovik, V., Farran, E.K. 2003 Farran, E.K. Research Endowment Trust Fund £1,500, £720, £1,842

2002 School of Psychology Research Achievement Award £500

## TEACHING & RELEVANT EXPERIENCE

Programme Leader: Child Development MSc, Developmental and Educational Psychology MSc

Doctoral School PhD cluster leader: Education Cluster

# General: MSc and Diploma level teaching: typical and atypical cognitive development, research methods and neuroscience, MSc project supervisor, Personal tutor.

## PhD Students

Completed

Chiraz Bensaad (ESRC funded 1+3) 2002-2008 (this includes 2 maternity leaves); Kerry Hudson (CASE ESRC funded 1+3) 2006 –2011; Susie Formby (University of Reading 1+3 studentship) 2006 -2011; Joanne Camp (Bloomsbury +3 studentship) 2010 -2014

Current

Katie Gilligan (Bloomsbury studentship) 2014-2017, Hannah Ward (ESRC funded +3) 2014-2017, Emma Campbell (ESRC 1+3 funded) 2014-2018, Hannah Broadbent (CASE ESRC funded +3) 2010-2014 (this includes 1 maternity leave), Jamie Lingwood (ESRC funded +3) 2011-2014.

## RESEARCH

See:<http://cogdevlab.weebly.com/>

My primary research interests relate to cognitive development in neurodevelopmental disordered groups, with a specific emphasis on visuo-spatial cognition. The broad aim of my research is to characterise both typical and atypical development of cognitive functions within a neuroconstructivist framework (i.e. functions are explored within the context of the *developing* brain). This involves analytical investigation of visuo-spatial performance in both small-scale (e.g. perception, mental imagery, drawing and construction abilities) and large-scale space (navigational and route learning abilities), and more recently, the assessment of memory, attention and executive function, as well as problem solving abilities in both lab-based and real-world contexts.

**PUBLICATIONS**

Farran, E.K. Purser, H.R.M., Courbois, Y., Ballé, M. Sockeel, P., Mellier, D, Blades, M. (under review). The development of configural knowledge in typical development, Down syndrome and Williams syndrome. *Journal of Neurodevelopmental Disorders*.

Lingwood, J., Blades, M., Farran, E.K., Courbois, Y. The development of wayfinding abilities in children: Learning routes with and without landmarks. Journal of Environmental Psychology.

Purser, H.R.M., Farran, E.K. Courbois, Y., Ballé, M. Sockeel, P., Mellier, D, Blades, M. (under review). Route learning does not rely on knowledge of landmark sequence. *Quarterly Journal of Experimental Psychology*.

Purser, H.R.M., Farran, E.K. Courbois, Y., Lemahieu, A., Sockeel, P., Mellier, D, Blades, M. (in press). The development of route learning in Down syndrome, Williams syndrome and typical development: investigations with virtual environments. *Developmental Science.*

Farran, E.K., Dodd, G. F. (in press). Drawing ability in typical and atypical development; the effect of colour cues. *Journal of Intellectual Disability Research.*

**Broadbent, H.,**Farran, E.K., Chin, E., Metcalfe, K., Tassabehji, M., Turnpenny, P., Sansbury, F., Meaburn, E., Karmiloff-Smith, A., (in press). Genetic contributions to visuospatial cognition in Williams syndrome: Insights from two contrasting partial deletion patients.

Broadbent, H. J., Farran, E. K., Tolmie, A. (2014). Object-based mental rotation and visual perspective-taking in typical development and Williams syndrome. *Developmental Neuropsychology, 39, 205-225.*

Broadbent, H. J., Farran, E. K., Tolmie, A. (in press). Egocentric and allocentric navigation strategies in typical development and Williams syndrome. *Developmental Science*

Hudson, K.D., Farran, E.K. (in press). Perceiving and acting in depth in Williams syndrome and typical development. *Research in Developmental Disabilities.*

Farran, E.K., Cranwell, M.B., Alvarez, J., Franklin, A. (2013). Colour Discrimination and Categorisation in Williams Syndrome. *Research in Developmental Disabilities,34, 3352-3360.*

Courbois, Y., Farran, E.K., Lemahieu, A., Blades, B., Mengue-Topio, H., Sockeel, P. (2013). Wayfinding behaviour in Down Syndrome: A study with virtual environments. *Research in Developmental Disabilities, 34, 1825-1831.*

Hudson, K.D., Farran, E.K. (2013). Looking around houses: Attention to a model when drawing complex shapes in Williams syndrome and typical development. *Research in Developmental Disabilities, 34, 3029-3039.*

Hudson, K.D., Farran, E.K. (2013). Facilitating complex shape drawing in Williams syndrome and typical development. *Research in Developmental Disabilities, 34,* 2133-2142*.*

Courbois, Y., Blades, M., Farran, E.K., Sockeel, P. (2013). Do individuals with intellectual disability select appropriate objects as landmarks when learning a route? *Journal of Intellectual Disability Research, 57,* 80-89.

Farran, E.K., Connell, S.C., Pharwaha, B.K. (2012). The Effects of Perceptual Grouping and Category Boundary Salience on Location Memory. *Psychology, 3, 953-958.*

Purser, H., Farran, E.K., Courbois, Y., Lemahieu, A., Sockeel, P., Blades, M. (2012). [Short-term memory, executive control, and children's route learning.](http://apps.webofknowledge.com.elibrary.ioe.ac.uk/full_record.do?product=UA&search_mode=GeneralSearch&qid=1&SID=P1KB7P5EcH5EhlaKOHB&page=1&doc=1) *Journal of Experimental Child Psychology, 113*, 273-285.

Karmiloff-Smith, A., Broadbent, H., Farran, E.K., Longhi, E., D'Souza, D., Metcalfe, K., Tassabehji, M., Wu, R., Senju, A., Happé, F., Turnpenny, P., Sansbury, F., (2012). Social Cognition in Williams Syndrome: Genotype/phenotype Insights from Partial Deletion Patients. *Frontiers in Developmental Psychology, 3*, 1-8

Farran, E.K., Courbois, Y., Van Herwegen, J., Blades, M. (2012). How useful are landmarks when learning a route in a virtual environment? Evidence from typical development and Williams syndrome. *Journal of Experimental Child Psychology, 111,* 571-586.

Farran, E.K., Courbois, Y., Van Herwegen, J., Cruickshank, A.G., Blades, M. (2012). Colour as an environmental cue when learning a route in a virtual environment; typical and atypical development. *Research in Developmental Disabilities, 33,* 900-908.

Farran, E.K. & Brosnan, M. (2011). Perceptual grouping abilities in individuals with Autism Spectrum Disorder; the importance of grouping type and of development. *Autism Research, 4,* 283-292*.*

Hudson, K. & Farran, E.K. (2011). Drawing the Line: Graphic Strategies for Simple and Complex Shapes in Williams Syndrome and Typical Development. *British Journal of Developmental Psychology,29, 687-706.*

Mengue-Topio, H. Courbois, Y., Farran, E.K., Sockeel, P. (2011). Route learning and shortcut performance in adults with intellectual disability: A study with virtual environments. *Research in developmental disabilities, 32, 345-352.*

Van Herwegen, J., Farran, E.K., Annaz, D. (2011). Item and error analysis on Raven’s Coloured Progressive Matrices in Williams Syndrome. *Research in Developmental Disabilities, 32, 93-99.*

Farran, E.K., Branson, A. & King, B.J. (2011). Visual search for basic emotional expressions; impaired detection of anger, fear and sadness, but a typical happy face advantage in autism. *Research in Autism Spectrum Disorders, 5,455-462.*

Freeman, K., Williams, T.I., Farran, E.K. & Brown, J.H. (2010). Williams syndrome: the extent of agreement between parent and self report of psychological difficulties. *European Journal of Psychiatry, 24, 167-175.*

Farran, E.K., Blades, M., Boucher, J. & Tranter, L.J. (2010). How do Individuals with Williams Syndrome Learn a Route in a Real World Environment? *Developmental Science,* 13, 454-468.

Farran, E., Courbois, Y., & Cruickshank, A. (2009). Learning a route in a virtual environment: The effects of differing cues on the performance of typical children and individuals with williams syndrome. *Cognitive Processing, 10*, S152-S153.

Formby, S., & Farran, E. (2009). Visual search and visual feedback in Williams syndrome and typical development. *Cognitive Processing, 10*, S167-S167.

Hudson, K., & Farran, E. (2009). Graphic strategies in williams syndrome and typically developing children. *Cognitive Processing, 10*, S154-S155.

Farran, E.K., Whitaker, A. & Patel, N. (2009). The effect of pictorial depth information on retinal size judgements. *Perception and Psychophysics, 71,* 207-214*.*

Farran, E.K. (2008). Strategies and biases in location memory in William syndrome. *Research in Developmental Disabilities, 29,* 385-397.

Farran, E.K., Brown, J.H., Cole, V.L., Houston-Price, C & Karmiloff-Smith, A. (2008) A longitudinal study of perceptual grouping by proximity, luminance and shape in infants at two, four, six and eight months. *European Journal of Developmental Science.2,* 353-369.

Farran, E.K. & Cole, V.L. (2008). Perceptual grouping and distance estimates in Williams syndrome: Comparing performance across perception, drawing and construction Tasks. *Brain and Cognition, 68,* 157-165.

Stinton, C., Farran, E.K. and Courbois, Y. (2008). Mental rotation in Williams syndrome: an impaired imagery ability. *Developmental Neuropsychology, 33*, 565-583*.*

Farran, E.K., Brown, J.H., Cole, V.L., Houston-Price, C & Karmiloff-Smith, A. (2007). The development of perceptual grouping in infants with Williams syndrome. *European Journal of Developmental Science, 1, 253-271 .*

Farran, E.K. (2007). Williams syndrome. *Psychology Review, 13*, 18-19.

Brock, J., Jarrold, C., Farran, E.K., Laws, G. & Riby, D.M. (2007). Do children with Williams syndrome really have good vocabulary knowledge? Methods for comparing cognitive and linguistic abilities in developmental disorders. *Journal of Clinical Linguistics and Phonetics, 21,* 273-688.

Farran, E.K. & Wilmut, K. (2007). Texture segmentation in Williams Syndrome. *Neuropsychologia, 45,* 1109-1018*.*

Farran, E.K. (2006). Orientation coding: A specific deficit in Williams syndrome? *Developmental Neuropsychology, 29,* 397-414.

Farran, E.K. (2005). Perceptual grouping ability in Williams syndrome: Evidence for deviant patterns of performance. *Neuropsychologia, 43,* 815-822

Farran, E.K., & Jarrold, C. (2005) Evidence for unusual spatial location coding in Williams syndrome: An explanation for the local bias in visuo-spatial construction tasks? *Brain and Cognition, 59,* 159-172

Farran, E.K., & Jarrold, C. (2004). Exploring block construction and mental imagery: Evidence of atypical orientation discrimination in Williams syndrome. *Visual Cognition, 11,* 1019-1040

Farran, E.K. & Jarrold, C. (2003). Visuo-spatial cognition in Williams syndrome; Reviewing and accounting for the strengths and weaknesses in performance. *Developmental Neuropsychology, 23,*175-202

Farran, E.K., Jarrold, C. & Gathercole, S.E. (2003). Divided attention, selective attention and drawing: Processing preferences in Williams syndrome are dependent on the task administered, *Neuropsychologia, 41*, 676-687

Farran, E.K., Jarrold, C. & Gathercole, S.E. (2001). Block design performance in the Williams syndrome phenotype: A problem with mental imagery? *Journal of Child Psychology and Psychiatry, 42,*719-728.

**Reviews**

Farran, E.K. (2004) Development and learning, M. Wolraich (Ed.). *Child & Adolescent Mental Health, 9,* 198-198.

**Book chapters**

Camp, J., Farran, E.K. & Karmiloff-Smith, A. (2012). Numeracy. In Farran, E.K. and Karmiloff-Smith, A. (Eds). Neurodevelopmental Disorders Across the Lifespan: A Neuroconstructivist Approach. (pp.299-312). *Oxford University Press.*

Hudson, K. & Farran, E.K. (2012). Executive function and motor planning. In Farran, E.K. and Karmiloff-Smith, A. (Eds). Neurodevelopmental Disorders Across the Lifespan: A Neuroconstructivist Approach. (pp. 165-186). *Oxford University Press.*

Farran, E.K. & Formby, S. (2012). Visual Perception and Visuospatial Cognition. In Farran, E.K. and Karmiloff-Smith, A. (Eds). Neurodevelopmental Disorders Across the Lifespan: A Neuroconstructivist Approach. (pp. 225-246). *Oxford University Press.*

**Books**

Farran, E.K. and Karmiloff-Smith, A. (Eds) (2012). Neurodevelopmental Disorders Across the Lifespan: A Neuroconstructivist Approach. *Oxford University Press.*

## CONFERENCE CONTRIBUTIONS

**Recent conference presentations include:**

Farran, E.K. Purser, H.R.M., Courbois, Y., Ballé, M. Sockeel, P., Mellier, D, Blades, M. (2014). Spatial navigation: the development of configural knowledge in typical and atypical populations. ***European Conference on Psychological Theory and Research on Intellectual and Developmental Disabilities, Linkoping, Sweden, June 2014.***

Farran, E.K., Purser, H., Courbois, Y., Lemahieu, A., Sockeel, P., Mellier, D., Blades, M. (2013). Landmarks and Route Learning; Which Landmarks do typical and atypical groups use when learning a route? *Society for Research in Child Development Conference, Seattle, April, 2013*

Symposium organiser and chair: Domain-General influences on Domain-specific processes in typical and atypical development. *British Psychological Society Developmental Section Annual Conference, Newcastle, September, 2011.*

Farran, E.K., Purser, H., Courbois, Y., Blades, M., Sockeel, P. (2011). Comparing the development of route-learning ability across Williams syndrome, Down syndrome and Typical Development; the role of executive function. *British Psychological Society Developmental Section Annual Conference, Newcastle, September, 2011.*

**Recent invited presentations include:**

Farran, E.K. (2014). The relationship between the development of spatial cognition and STEM subjects. *Invited speaker. Centre for Educational Neuroscience seminar series, June 2014*.

Farran, E.K. (2014). The development of large-scale spatial knowledge; what can we learn about navigation strategies by using virtual environments and eye-tracking? *Invited speaker, Developmental Neurocognition Lab seminar series, Birkbeck, march 2014.*

Farran, E.K. (2013). Independence and Problem solving. *Invited speaker. National Convention of the Williams Syndrome Foundation, UK, October, 2013.*

Farran, E.K. (2013). Space: typical and atypical development. *Invited speaker. Cerebra Centre Academic Conference, June 2013.*

Farran, E.K. (2011). Visual & spatial abilities in Williams syndrome. *Invited speaker. Regional Convention of the Williams Syndrome Foundation, UK, October, 2011.*

Farran, E.K. (2011). The development of route learning abilities in typical and atypical development. *Invited speaker. CBCD External seminar series. Birkbeck, June, 2011.*

Farran, E.K. (2011). Spatial cognition and spatial language. *Invited speaker, Developmental Neurocognition Lab seminar series, Birkbeck, May 2011.*

Farran, E.K. (2011). Exploring typical and atypical development of route learning in virtual and real-world environments; how important are landmarks? *Invited speaker, Goldsmith’s University Psychology Department seminar series, March, 2011.*

Farran, E.K. (2010). Visuo-spatial cognition in WS: characteristics of small-scale and large-scale task performance. *Invited speaker. University of Newcastle Psychology Department seminar series, November, 2010.*

Farran, E.K. (2009). Route learning in typical and atypical development; Using landmarks, remembering the sequential order of turns, and understanding the spatial relationship between locations on a route. Keynote speech as winner of the Neil O’Connor award. *British Psychological Society Developmental Section Annual Conference, September2009.*

**PROFESSIONAL ACTIVITIES OUTSIDE THE UNIVERSITY**

Member of the Experimental Psychology Society

External PhD examiner: University of Stirling, 2007; University of Oxford, 2011

External examiner: Speech Science and Speech Communication, UCL. 2006-2011

External reviewer: BSc degree proposal, UCL. 2012

Seminar series organiser: Neurodevelopmental Disorders seminar series, 2012-2013.

Conference organiser. The 3rd Williams Syndrome Workshop, Reading, 2006.

Scientific American Mind, 17(4), p. 9: ‘Babies Organise Sight’ 2006.

Member of Editorial Board: Developmental Neuropsychology, Developmental Science

Member of ESRC Peer review college, 2012-present

Member of Science and Research Advisory Committee Down Syndrome Education International

Member of the Centre for Educational Neuroscience Management committee, London.

Reviewer for: American Journal on Mental Retardation, British Journal of Developmental Psychology, Cognitive Processing, Cortex, Developmental Medicine & Child Neurology, Developmental Neuropsychology, Developmental Science, Genes, Brain and Behaviour, Journal of Child Psychology and Psychiatry, Memory, Mind and Language, Neuropsychology, Neuropsychologia, Vision research, Pearson Education, British Academy, ESRC, BBSRC, MRC, Agence Nationale de la Recherche (ANR), GIS-Institut des Maladies Rares, Swiss National Science Foundation.