Delia Fuhrmann

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Big Data:	Secondary Data Analysis, Psychometrics, Open Science
Lifespan Development:	Child & Adolescent Development, Cognitive Ageing, Learning & Plasticity
Neuroimaging:	MRI, DTI, White Matter Hyperintensities

Research & Education

2017-2020	**University of Cambridge**, MRC Cognition and Brain Sciences Unit & Sidney Sussex College Research Associate with Dr. Rogier Kievit • Topic: Modelling lifespan development of executive functions
2013-2017	**University College London**, Institute for Cognitive Neuroscience PhD under the supervision of Prof. Sarah-Jayne Blakemore • Topic: Plasticity and learning in adolescence
2009-2013	**University of St Andrews**, School of Psychology and Neuroscience BSc Honours Psychology (1st class), other subjects studied: Biology and Divinity • Dissertation on chimpanzee social learning with Prof. Andrew Whiten

Selected Prizes & Research Funding

2019	**MRC Special Award** for excellent performance in 2018, UK Medical Research Council
2018	**British Neuroscience Association Postgraduate Award** for the best British Neuroscience PhD in 2017
2009-2017	**Cusanuswerk Fellowship** for BSc studies and PhD Research
2013-2017	**Statistics Demonstratorship** (scholarship) for PhD research, Division of Psychology and Language Sciences, UCL
2016-2017	**Scholarship Enhancement** for PhD research from Jacob's Foundation Prize to Sarah-Jayne Blakemore
2014	**Cecily De Monchaux Research Prize** for the best performance in the first year of studies and research towards the PhD at the Division of Psychology and Language Sciences, UCL
2013	**Malcolm Jeeves Award** for best student in Psychology BSc at the University of St Andrews
2010	**Barber Price** for Divinity at the University of St Andrews
2009-2013	**The Deans' List Award** of the University of St Andrews for academic excellence

Research Visits

Spring 2018	**Alan Turing Institute for Data Science and AI**, London, UK: Data Study Group delegate
Summer 2012	**UC Berkeley Social Interaction Lab**, Berkeley, US: Research assistant
Summer 2010	**Max Planck Institute for Human Cognitive and Brain Sciences**, Leipzig, DE: Research assistant
Summer 2009	**Max Planck Institute for Evolutionary Anthropology**, Leipzig, DE: Research assistant

Teaching & Supervision

2015- 2020	**Co-supervision of PhD students**, University of Cambridge and UCL: Ivan Simpson-Kent, Caroline Casey
2018-2019	**Lectures & Workshops**, Medical Research Council: Introduction to Matlab, Introduction to Structural Equation Modelling, Introduction to Mixed Models
2017-2018	**Psychology supervisions**, University of Cambridge: Psychological and Behavioural Sciences Tripos
2013-2017	**BSc and MSc statistics tutorials, statistics consultations** on MSc theses, UCL Department of Experimental Psychology
2013-2014	**Tutor**, The Access Project: University Outreach Program, Tutor
2010-1011	**Tutor**, First Chances: University of St Andrews Outreach Program, Tutor

Administration

2019 -2020	**Environment Committee**, MRC Cognition and Brain Sciences Unit, University of Cambridge
2018-2019	**Seminar Committee**, MRC Cognition and Brain Sciences Unit, University of Cambridge
2017-2018	**Interview Panel**, University of Cambridge
2012-2013	**President of the Psychology Society**, University of St Andrews:

Invited Talks

2019: Harnessing Big Data to understand development. Seminar, Bielefeld, DE

2019: Greater verbal ability in childhood predicts less loneliness in adolescence. British Association of Cognitive Neuroscience, Cambridge, UK

2018: The neurocognitive architecture of fluid ability. Flux Congress 2018, Flux Society, Berlin, DE

2018: Building blocks of cognitive performance. Practitioner Day, CALM, Cambridge, UK

2018: The neurocognitive architecture of fluid ability. Postdoc Symposium, University of Cambridge, Cambridge, UK

2017: Plasticity and learning in adolescence. Wednesday Lunch Time Seminar, MRC Cognition and Brain Sciences Unit, Cambridge, UK

2017: Generalized Linear Models. MRC Methods Day, MRC Cognition and Brain Sciences Unit, Cambridge, UK

2017: Plasticity and learning in adolescence. School of Psychology Seminar, University of Birmingham, Birmingham, UK

2017: Cardiovascular and white matter health in ageing. CBU Science Day, MRC Cognition and Brain Sciences Unit, Cambridge, UK

2017: Plasticity and learning in adolescence. Tea Time Talk, UCL Institute of Cognitive Neuroscience, London, UK

2016: Inside the adolescent brain. Advisory Meeting of the Global Girls Initiative, Overseas Development Institute, London, UK

2015: Social Cognition in adolescence. Countdown 2030, PATH, London, UK

2014: Motor mimicry in chimpanzee observational learning. Seminar given at the Department of Cognitive Biology, University of Vienna, Vienna, AU

Publications

Papers, pre-registrations, materials & scripts are available from https://www.delia-fuhrmann.com/publications

Fuhrmann, D., Casey, C.S., Speekenbrink, M. & Blakemore, S.J. (accepted). Social Exclusion Affects Working Memory Performance in Young Adolescent Girls. *Developmental Cognitive Neuroscience* [OA once in press]

Fuhrmann, D.*, Chierchia, G.* Knoll, L., Piera Pi-Sunyer, B., Sakhardande, A., & Blakemore, S.J. (accepted). The Matrix Reasoning Item Bank (MaRs-IB): Novel, Open-Access Abstract Reasoning Items for Adolescents and Adults. *Royal Society Open Science* [OA via https://osf.io/uvteh/]

Fuhrmann, D., Simpson-Kent, I. L., Bathelt, J., the CALM team & Kievit, R.A. (in press). A Hierarchical Watershed Model of Fluid Intelligence in Children and Adolescents. *Cerebral Cortex*, doi: 10.1101/435719 [OA]

Fuhrmann, D., Nesbitt, D., Shafto, M., Rowe, J.B., Price, D. Gadie, A., Cam-CAN & Kievit, R.A. (in press). Strong and Specific Associations between Cardiovascular Risk Factors and Brain White Matter Micro- and Macrostructure in Healthy Aging. *Neurobiology of Aging*, doi: 10.1016/j.neurobiolaging.2018.10.005 [OA]

Tibon, R., **Fuhrmann, D.**, Levy, D. A., Simons, J., & Henson, R.N.A. (in press). Multimodal integration and vividness in the angular gyrus during episodic encoding and retrieval. *The Journal of Neuroscience*, 393553 [OA]

Simpson-Kent, I. L., **Fuhrmann, D.**, Bathelt, J., Achterberg, J., Borgeest, G.S., the CALM team & Kievit, R.A. (preprint). Neurocognitive Reorganization between Crystallized Intelligence, Fluid Intelligence and White Matter Microstructure in Two Age-Heterogeneous Developmental Cohorts. *bioRxiv*, 593509 [OA]

Fuhrmann, D., Leung, J., Griffin, C. Schweizer, S. & Blakemore, S.J. (2018). The Neurocognitive Correlates of Academic Diligence in Adolescent Girls. *Cognitive Neuroscience*, doi: 10.1080/17588928.2018.1504762 [OA]

Kievit, R.A., **Fuhrmann, D.**, Borgeest, G.S., Simpson-Kent, I.L., Henson, R.N.A. (2018). The Neural Determinants of Age-Related Changes in Fluid Intelligence: A Pre-Registered, Longitudinal Analysis in UK Biobank. *Wellcome Open Research*, 3:38, doi: 10.12688/wellcomeopenres.14241.1 [OA]

Foulkes, L., Leung, J., **Fuhrmann, D.** & Blakemore, S-J. (2018). Age Differences in the Prosocial Influence Effect. *Developmental Science*, e12666, doi: 10.1111/desc.12666 [OA]

Fuhrmann, D. Learning and Plasticity in Adolescence. PhD Thesis, *University College London*, London, UK [OA]

Fuhrmann, D.*, Knoll, L.J.*, Sakhardande, A.L., Stamp, F., Speekenbrink, M., Blakemore, S.J. (2016). A Window of Opportunity for Cognitive Training in Adolescence. *Psychological Science*, 27(12):1620-1631. doi: 10.1177/0956797616671327 *Joint first authors [OA via https://bit.ly/2MiiWIm]

Fuhrmann, D., Knoll, L.J., Sakhardande, A., et al. (2016). Perception and Recognition of Faces in Adolescence. *Scientific Reports*, 6(33497), doi:10.1038/srep33497 [OA]

Fuhrmann, D., Knoll, L.J., Sakhardande, A. & Blakemore, S.J. (2016). When to Teach What: Are There Sensitive Periods for Learning in Adolescence? *Nuffield Foundation*. URL: https://www.nuffieldfoundation.org/sites/default/files/files/Blakemore%20-%20Nuffield%20Main%20Report%2012%20Jan%202017%20Final.pdf [OA]

Fuhrmann, D., Knoll, L.J., & Blakemore, S.J. (2015). Adolescence as a Sensitive Period of Brain Development. *Trends in Cognitive Sciences*, 19 (10), doi:10.1016/j.tics.2015.07.008 [OA via https://bit.ly/2KEwFeg]

Fuhrmann, D., Ravignani, A., Marshall-Pescini, S. & Whiten, A. (2014). Synchrony and Motor Mimicking in Chimpanzee Observational Learning. *Scientific Reports*, 4(5283), doi:10.1038/srep05283 [OA]

Training Courses

2017 - 2018	**Researcher Development Courses**, University of Cambridge: supervising undergraduates, grant applications with impact
2013-2016	**Graduate School Training Courses**, University College London: Gateway Workshop for Postgraduate Teaching Assistants, SPM, Python, Bayesian analysis, logistic regression, regression in R
2009-2016	**Cusanuswerk Summer Schools**: conceptualisations of mental health, mathematical modelling, freedom and security

Interests & Skills

Programming:	Proficient programming and statistical analysis in R and MATLAB. Experience with JavaScript and Python.
Ad-hoc reviewing:	PNAS, Journal of Neuroscience, Cerebral Cortex, Developmental Cognitive Neuroscience, UNESCO, Advances in Methods and Practices in Psychological Science, Intelligence
Public engagement:	I have given talks about adolescent brain development at over 15 schools around London and regularly take part in workshops for educational practitioners & panel discussions, e.g. on global health issues