Delia Fuhrmann CV

# Delia Fuhrmann

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## Work & Education

| 2020 - present                     | King's College London, Institute of Psychology, Psychiatry and Neuroscience<br>Lecturer   |
|------------------------------------|---|
|                                    | Teaching: Research methods  |
|                                    | Research: Plasticity and sensitive periods  |
| 2017-2020                          | <ul> <li>University of Cambridge, MRC Cognition and Brain Sciences Unit &amp; Sidney Sussex College</li> <li>Research Associate with Dr. Rogier Kievit</li> <li>Research: Modelling lifespan development of executive functions</li> </ul>                            |
| 2013-2017                          | <ul> <li>University College London, Institute for Cognitive Neuroscience</li> <li>PhD under the supervision of Prof. Sarah-Jayne Blakemore</li> <li>Research: Plasticity and learning in adolescence</li> </ul>   |
| 2009-2013                          | <ul> <li>University of St Andrews, School of Psychology and Neuroscience</li> <li>BSc Honours Psychology (1<sup>st</sup> class), other subjects studied: Biology and Divinity</li> <li>Dissertation on chimpanzee social learning with Prof. Andrew Whiten</li> </ul> |
| Selected Prizes & Research Funding |   |
| 2019                               | MRC Special Award for excellent performance in 2018, UK Medical Research Council  |
| 2018                               | <b>British Neuroscience Association Postgraduate Award</b> for the best British Neuroscience PhD in 2017  |
| 2009-2017                          | Cusanuswerk Fellowship for BSc studies and PhD Research   |
| 2013-2017                          | <b>Statistics Demonstratorship</b> (scholarship) for PhD research, Division of Psychology and Language Sciences, UCL  |
| 2016-2017                          | <b>Scholarship Enhancement</b> for PhD research from Jacob's Foundation Prize to Sarah-Jayne Blakemore  |
| 2014                               | <b>Cecily De Monchaux Research Prize</b> 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   |
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### **Invited Talks**

- 2019: Bringing theory to Big Data in Psychology. Seminar, Max Planck for Human Development, Berlin, DE
- 2019: Using Dynamic Measurement Models to estimate cognitive capacity. MRC Methods Day, MRC Cognition and Brain Sciences Unit, Cambridge, UK
- 2019: Harnessing Big Data to understand development. Seminar, Bielefeld, DE
- 2019: Greater verbal ability in childhood predicts less Ioneliness 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 <a href="https://www.delia-fuhrmann.com/publications">https://www.delia-fuhrmann.com/publications</a>

- Simpson-Kent, I. L., Fuhrmann, D., et al. (2020). Neurocognitive reorganization between crystallized intelligence, fluid intelligence and white matter microstructure in two age-heterogeneous developmental cohorts. *Developmental Cognitive Neuroscience* 41: 100743, doi: 10.1016/j.dcn.2019.100743
- Fuhrmann, D., Simpson-Kent, I. L., Bathelt, J., the CALM team & Kievit, R. A. (2019). The neurocognitive architecture of fluid ability in children and adolescents. *Cerebral Cortex* bhzo91, doi: 0.1093/cercor/bhz091
- Fuhrmann, D.\*, Chierchia, G.\*, Knoll, L., Piera Pi-Sunyer, B.Sakhardande, A., & Blakemore, S-J. (2019). The Matrix Reasoning Item Bank (MaRs-IB): Novel, Open-Access Abstract Reasoning Items for Adolescents and Adults. *Royal Society Open Science*, 6: 190232, doi: 10.1098/rsos.190232, \*joint first authors
- Fuhrmann, D., Casey, C.S., Speekenbrink, M. & Blakemore, S.J. (2019). Social Exclusion Affects Working Memory Performance in Young Adolescent Girls. *Developmental Cognitive Neuroscience*, 40:100718, doi: 10.1016/j.dcn.2019.100718
- Fuhrmann, D. et al. (2019). Strong and specific associations between cardiovascular risk factors and brain white matter micro- and macro-structure in healthy ageing. *Neurobiology of Aging* 74, 46-55, doi: 10.1016/j.neurobiolaging.2018.10.005

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Tibon, R., Fuhrmann, D., Levy, D. A., Simons, J., & Henson, R. N. (2019). Multimodal integration and vividness in the angular gyrus during episodic encoding and retrieval. *The Journal of Neuroscience* 39 (22), 4365-4374, doi: 10.1523/JNEUROSCI.2102-18.2018

- 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
- Kievit, R.A., Fuhrmann, et al. (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
- 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
- Fuhrmann, D. (2017). Plasticity and learning in adolescence. *PhD Thesis*. University College London, London, UK
- Fuhrmann, D.\*, Knoll, L.J.\*, Sakhardande, A., 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
- Fuhrmann, D., Knoll, L.J., Sakhardande, A., Speekenbrink, M., Cohen Kadosh, K. & Blakemore, S-J. (2016). Perception and recognition of faces in adolescence. *Scientific Reports*, 6(33497), doi:10.1038/srep33497
- 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
- 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

## **Preprints**

Tsvetanov, K. A., ...., Fuhrmann, D. et al. (preprint). The effects of age on resting-state BOLD signal variability is explained by cardiovascular and neurovascular factors, *bioRxiv* 836619; doi: 10.1101/836619