Members of the Department were deeply saddened to hear of the death in December of our irreplaceable friend and colleague, Professor Annette Karmiloff-Smith, age 78. Annette was an inspirational scientist and inspirational teacher but above all an inspirational woman. A true pioneer in the study of child development, she touched the lives of many across the world with her writings and teachings.

Deputy Head of the Department, Prof. Denis Mareschal, remembers Annette and her contribution to the field:

“Annette was a hugely influential seminal thinker in the field of child development. She started her career as a UN translator in Geneva but her interests soon turned to the emergence of language in children.

“She trained in Geneva under Barbel Inhelder and Jean Piaget. Her first article in 1975 – "If you want to get ahead, get a theory!" – encapsulated her view that understanding cognitive processes was the key to understand the child's developing abilities.
“Annette always emphasised the importance of development itself when trying to understand both typically and atypically developing children. Under this view – outlined more fully in Development itself is the key to understanding developmental disorders, published in 1998 – typical and atypical development are construed as different life trajectories driven by the same underlying mechanisms.

“This theoretical work led her to take substantial steps forward in understanding the abilities of children with Williams and Downs Syndromes. Finally, in later years her work focused on understanding the complex epigenetic interactions involved in brain organisation across early development.

“Annette was also a prolific author and co-author of a series of influential books. Her most notable scientific books Beyond Modularity: A Developmental Perspective on Cognitive Science (published 1992) and Rethinking Innateness: A Connectionist Perspective on Development (published 1996) have been reprinted in several languages.

“As someone committed to the communication of science to a broader audience, Annette also wrote several extremely successful books directed at a lay audience, including Baby It's You: A unique insight into the first three years of the developing baby, published in 1994.

“Annette was hugely loved by her students and colleagues and received dozens of accolades during her career, including a Fellowship of the British Academy, Fellowship of the Cognitive Science Society, Fellowship of the Academy of Medical Sciences and honorary doctorates from universities across the world. She will be sorely missed.”

For those who would like to contribute their own recollections of Annette, a memorial page has been set up:  
https://cbcdsite.wordpress.com/2016/12/19/annette/.
Prof. Mark Johnson and Dr Teea Gliga, in collaboration with researchers at Reading University and the Public Health Foundation of India, have been awarded funding for research aimed at developing new technologies for autism screening that can be used in low-resource settings. The Screening Tool for Autism Risk with Technology (START) study will use mobile technology, such as tablets, to implement a battery of screening tools, and test how accurate this screening battery is at detecting autism in a sample of children from India.

Welcome to the Department

A very warm welcome to our newly appointed Chair in Health Psychology, Prof. Elizabeth Grunfeld (see right). Elizabeth will be joining us in October from Coventry University.

Birkbeck’s School of Psychological Sciences is extremely proud of its international make up. In order to showcase the contribution people of all nationalities make to the department, we asked our members to pose for a photo holding the flag representing their nationality:
An exciting collaboration led by Professor Denis Mareschal (see left) and his team at the Centre for Brain and Cognitive Development (CBCD) investigating how primary school children learn, is looking for schools to participate in the next stage of their research.

The team have been working hard to develop UnLocke, a new maths and science computerised learning activity based on the idea that helping pupils to stop and think before they answer counterintuitive questions might be key to their learning in science and maths. The learning activity, which is now in use in several London schools, has encouraged pupils to ‘really think deeply about the question... rather than jumping to give the answer’, says a year 3 teacher who has been using the software in lessons. The team believe that this approach could have a real impact on the academic attainment of pupils.

Schools or teachers that might be interested in taking part in the project can visit the website for more information: www.unlocke.org, or send an email to unlocke@psychology.bbk.ac.uk to sign up by the end of July.

On 16th March, the CBCD’s Declan Clear and Jennifer Glennon hosted a St Patrick’s Day cultural evening, with a mix of not only great food and drink, but also excellent presentations on Irish culture, history and politics (see right, Jennifer Glennon, Prof. Mark Johnson and Declan Clear).
New Arrivals

... to **Dr Clare Press** on the arrival in October of her twin boys, Gregory Joseph and Samuel Frederick Lovell *(see right)*

... to **Dr Iroise Dumontheil** on the arrival of James Hamilton Dumontheil Smith in December *(see left)*

... and to **Dr Tim Smith** and **Dr Rachael Bedford (CBCD/KCL)**, on the arrival of Evelina (Eva) May Smith in February *(see right)*.

Dr Gillian Forrester was quoted in Exceptional Parent Magazine’s Annual Issue on Autism in April 2017 in an article entitled “Interventions For Autism We Found Useful With Our Grandchild”: http://www.eparent.com.

Dr Matthew Longo’s research was featured in an article in Science News on 3rd April, entitled “Out-of-body experiments show kids’ budding sense of self”: https://www.sciencenews.org/article/out-body-experiments-show-kids-budding-sense-self.

Dr Gillian Forrester was interviewed about the evolutionary explanation for humans’ instinctive reactions to trauma, in BBC Radio 4’s The Shock, which aired on 18th and 24th April and is available on BBC’s i-Player: http://www.bbc.co.uk/programmes/b08mb1fr.

Dr Tim Smith and collaborators’ research looking at the link between touchscreens and sleep in babies and toddlers (see page 12) was reported in over 270 news outlets across the globe in April, including print, online, radio and TV. The study was the leading article on the online BBC Health: http://www.bbc.co.uk/news/health-39588453.

Prof. Fred Dick and Dr Iroise Dumontheil featured as MRI experts demonstrating the effects alcohol has on the way our brains function, in the BBC One Wales documentary Do I Drink Too Much?, which aired on 15th December 2016.
**ENGAGEMENT & IMPACT**

**Professor Edward Melhuish** was invited by the Nordic Council of Ministers to give a keynote address to the conference Pedagogy in Early Childhood Education & Care – Nordic Challenges & Solutions, 22\textsuperscript{nd} September 2016, Helsinki, Finland. The title of his talk was “Reflections from Europe on ECEC Pedagogy in the Nordic Countries”. The conference was attended by ministerial officials from Departments of Education in the Nordic countries Norway, Sweden, Denmark, Finland and Iceland.

**Professor Edward Melhuish** was invited to a reception at the House of Lords on 8\textsuperscript{th} February 2017 to discuss research and policy on Early Interventions to Prevent Child Abuse & Neglect.

In February, the **Centre for Educational Neuroscience (CEN)** ran its inaugural Bright Sparks event, where over 100 primary school children aged 5-11 years came in to the department to learn about the brain, whilst our CEN researchers collected valuable data on their attention, movement, creativity and spatial cognition. The results will help us find out more about how children learn, and what things might influence their learning.
In January and February, a team of researchers from the Department, together with collaborators, completed a very successful six week residency at the London Science Museum. The team, led by Professor Anne Richards and Dr Marie Smith, tested close to 2,500 members of the public, aged from 5 years old to 85 years old, running live experiments to find out how much we understand about people simply by looking at their faces.

You can read more about the residency here: http://blogs.bbk.ac.uk/research/2017/03/23/whats-in-a-face-birkbeck-researchers-delve-into-what-facial-expressions-reveal/.

On the 17th March the Wellcome Trust hosted the CEN’s eagerly anticipated workshop “Neuroscience in the Classroom: Current Progress and Future Challenges”, which was organised by a group of PhD students from the CEN. Nearly 100 delegates attended the workshop, which brought together academics, students, teachers, consultants and individuals from charities and other organisations.
In March, members of the Genes Environment Lifespan (GEL) lab, including Professor Angelica Ronald and PhD students Oliver Pain and Wikus Barkhuizen, ran an Evolution Workshop for 60 children in year 3 at Rhodes Avenue Primary school in London. Activities included making DNA molecules out of pipe-cleaners, a special evolution-focused version of the ‘Tray Game’, and a mind-boggling quiz on everything from the Big Bang to why some people can wiggle their ears.

The team received a big pile of thank you cards with messages about what they enjoyed. Cosmo, age 8, said "I really enjoyed the different activities. My favourite part was when you read the book about everything. I learnt so much in such a small amount of time".

In March, Dr Alex Shepherd became a committee member of the Applied Vision Association, an organisation devoted to the support and dissemination of vision research in the UK.
As part of the Birkbeck Institute for the Moving Image (BIMI) Sci/Film Series, **Dr Tim Smith and Dr Teodora Gliga** held two film screenings: “The Andromeda Strain” (16th December), which was followed by a discussion on the search for extraterrestrial life with Dr Jenny Harris (UCL/BBK) and "Altered States" (13th January), with a mind-expanding discussion about psychedelics and consciousness with Dr Robin Carhart-Harris (Imperial). You can follow the Sci/Film series for information on future screenings: [https://www.facebook.com/BIMI01SciFilmSeries/](https://www.facebook.com/BIMI01SciFilmSeries/).

On the 21st of March, the Infant Stream of the London Down Syndrome (LonDownS) Consortium from Birkbeck helped to organise a celebration for World Down Syndrome Day. People of all ages with Down syndrome, as well as their families, carers and friends, came together to learn more about the research of the LonDownS Consortium and take part in activities such as making paper brain hats and plasticine neurons.
Parent-mediated intervention could help babies at risk of developing autism

The earliest autism intervention study in the world has suggested that a video-based therapy for families with babies at high risk of developing autism may reduce the severity of emerging signs of the condition. The study, which is a collaboration between Prof. Mark Johnson’s team at the CBCD, and teams at the University of Manchester and King’s College London, is the first of its kind to work with babies in their first year of life who have a sibling with autism and are therefore have a higher likelihood of developing the condition.

The study aimed to reduce early symptoms of autism, such as not paying attention to a parent, reduced social interest or engagement, and decreased eye contact, and thereby lower the likelihood of the child developing difficulties associated with autism later on in childhood.

Families who took part in the study received a minimum of six home-based visits from a therapist, who used video-feedback to help the parents understand and respond to their baby’s individual communication style to improve infant attention, communication, early language development, and social engagement. The infants received the intervention for five months, from the age of nine months, and were then assessed at the end of the therapy, when the toddlers were 27 months old and then again at 39 months.

Results showed that families who received the parent-mediated therapy demonstrated improvements in infant engagement, attention and social behaviour, and in parent-infant interactions. Although these results are encouraging, because of the relatively limited number of participants, larger studies are needed before researchers can make definitive conclusions about the therapy’s effect on reducing the severity of autism symptoms.
Touchscreens and toddlers’ sleep

Traditional screen time (television and games consoles) has been linked to sleep problems in children, but as portable touchscreens (smartphones and tablets) become increasingly ubiquitous, this effect may now be being seen in children as young as six months old.

Dr Tim Smith and colleagues at the CBCD, in collaboration with researchers at King’s College’s Institute of Psychiatry, Psychology and Neuroscience, have been looking at the link between touchscreens and sleep in babies and toddlers. The team questioned 715 parents about their child’s daily touchscreen use and sleep patterns, and found that babies and toddlers who spent more time using a touchscreen slept less at night and, despite sleeping more during the day, slept for less time overall and also took longer to fall asleep. For every additional hour of touchscreen use during the day, children were sleeping for nearly 16 minutes less in each 24-hour period.

Sleep is important for cognitive development - especially during the first few years of life, so the findings have important implications. By 2014, 71% of families owned a touchscreen device and of the families participating in the study, 75% of the toddlers (aged between 6 months and 3 years) used a touchscreen on a daily basis, increasing from 51% at 6-11 months to 92% at 25-36 months.

Although this study has established a link between use of touchscreens and reduced sleep, future research is needed to try and understand whether touchscreen use is causing sleep problems, and how types of touchscreen use might mitigate these risks.
### GRANTS, AWARDS & RECOGNITION

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
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<tbody>
<tr>
<td>Jacqueline Barnes</td>
<td>Clinical and cost effectiveness of a parent mediated intervention to reduce challenging behaviour in pre-schoolers with moderate to severe learning disability: a randomised controlled trial</td>
<td>NIHR</td>
<td>36,972</td>
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<tr>
<td>Edward Melhuish</td>
<td>2017 Study of Education amongst Children born from Artificial Reproductive Technologies (ART)</td>
<td>Nuffield Foundation</td>
<td>250,000</td>
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<td>Adam Tierney</td>
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<td>ISSF</td>
<td>9,027</td>
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**Dr Tim Smith** and **Dr Atsushi Senju** have been awarded a UCL, Bloomsbury and East London DTP Co-funded and Collaborative Studentship, in conjunction with Acuity Intelligence, to begin in October, 2017.
Congratulations to ....

Professor Ulrike Hahn, who will be receiving an Honorary Degree from the University of Lund, Sweden, Doctor of Philosophy *Honoris Causa* in June this year.

One of the CBCD’s founding members, and now part-time Professor, Gergely Csibra, for his highly prestigious election to the US Academy of Sciences as a foreign associate.

Dr Hana D’Souza and former Birkbeck Psychology alumnus Dean D’Souza for winning the British Academy’s Better Data Funding Competition. Hana and Dean secured £1,500 to support their project: *Embodied language development: Using head-mounted cameras and LENA (Language Environment Analysis) to understand word learning in atypically developing toddlers.*
Congratulations also to ....

Dr Iroise Dumonthieil, who was elected a Fellow of the US Association for Psychological Sciences (APS) in August 2016.

Our resident Visiting Professor at the CBCD, Prof Clare Elwell, who won this year’s WISE (Women in Science & Engineering) top research award:

Dr Kristen Swan Tummeltshammer for receiving this year’s SRCD Outstanding Dissertation Award, which follows on from her APA Dissertation award last year.
**Dr Marie** Smith gave a talk at the Royal Holloway, University of London, Seminar Series, London entitled “Capturing face-processing strategies in typical and atypical development”, 25th January 2017.

**Dr Fiona Tasker** and Birbeck Psychology alumna **Dr Sally Wood** gave a talk entitled “Adoption as a process of continued “unsafe uncertainty” when family scripts collide” at the CoramBAAF 50th Annual Conference ‘The future of family placement: What has the last 50 years taught us?’, Birmingham, 31st January 2017.

**Professor Angelica Ronald** presented her talk “What are psychotic experiences and how are they related to other forms of psychopathology?” at the Division of Psychology and Language Sciences, UCL, London, January 2017.

**Professor Ulrike Hahn** gave a talk entitled “A failure to consider learning has hampered understanding of the conditional” at the International Workshop on Learning Conditionals, Center for Advanced Studies, LMU, Germany, February 2017.

**Professor Angelica Ronald** gave a talk entitled “Psychotic experiences during adolescence: Why they are relevant to the health sciences” at the Centre for Medicine, University of Leicester, February 2017.

**Professor Mike Oaksford** gave an invited talk, “Learning in dynamic conditional inference” at the International Workshop on Learning Conditionals, Munich Centre for Mathematical Philosophy, Munich, Germany, 3rd February 2017.
Professor Denis Mareschal was a key note speaker at the joint ASCL (Association for School and College Leaders) and LEARNUS workshop “FutureEd: How can Findings from Educational Neuroscience Reshape Teaching and Learning, now and in the Future?” in London, 9th February 2017.

Professor Jacqueline Barnes gave a talk entitled “Can young parents be helped to be more resilient and competent?” at the Resilience Forum, School of Health Sciences, University of Brighton, February 21st 2017.

Professor Jacqueline Barnes gave a talk entitled “Early intervention to reduce the risk of child maltreatment: results of a randomised trial of a nurse-led group intervention” at the Division of Psychiatry Academic Seminar, UCL, February 22nd 2017.

Professor Ulrike Hahn gave a talk entitled “Information Networks, Truth and Value” at the Department of Psychology, City University, London, March 2017.

Professor Angelica Ronald gave a talk entitled “Psychotic experiences in teenagers: part of the turbulence of typical adolescence, or harbingers of mental health conditions?” at the Karolinska Institute, Stockholm, Sweden, March 2017.

Professor Ulrike Hahn gave a talk entitled “Don’t you get it? Understanding responses to climate communication” at the Arts and Science Festival Event: Saving Land and Water: Shaping Perceptions of Climate Change, University of Birmingham, March 2017.

Professor Jacqueline Barnes was the Keynote speaker at A Better Start, Learning Cross-Site and Development Conference, Blackpool, March 1st 2017, speaking on “Why communities matter for child development”.

Professor Angelica Ronald gave a talk entitled “Psychotic experiences in teenagers: part of the turbulence of typical adolescence, or harbingers of mental health conditions?” at the Karolinska Institute, Stockholm, Sweden, March 2017.
Dr Clare Press, Dr Matthew Longo and Dr Emily Jones joined Emeritus Professor of Cognitive Development at UCL-ICN, Uta Frith, for the Annette Karmiloff-Smith Women In Psychological Sciences (WIPS) Lecture 2017: *Mind the Generation Gap!* at Birkbeck, London, 8\textsuperscript{th} March.

Dr Marie Smith was a panel discussant at the Winton Women “Trailblazers in Mathematics” Conference, London, 29\textsuperscript{th} March (see right, seated on the right).

Dr Gillian Forrester gave a talk entitled “Handedness Facts: from Evolution to Neuroscience 2017: Hand dominance and the Evolution of Human Cognition: A Cross-Species Perspective” at the Accademia dei Lincei, Rome, Italy, 4-5\textsuperscript{th} April.

Dr Gillian Forrester was an invited speaker at the Centre for Mind/Brain Sciences, CIMeC, University of Trento, Italy, 6\textsuperscript{th} April.

Dr Alex Shepherd gave at talk entitled “Tracking the migraine cycle using visual tasks” at the Oxford 15th Symposium on Headache, Worcester College, Oxford, 8\textsuperscript{th} April.
UPCOMING TALKS/EVENTS

Centre for Brain and Cognitive Development Seminar Series
1.00pm on Tuesdays, BMA Seminar Room

16th May 2017  Professor Kim Plunkett (University of Oxford): “How Infants Build a Semantic System”
23rd May 2017  Dr Gillian Forrester (Internal Seminar)
30th May 2017  Dr Atsushi Senju (Internal Seminar)
6th June 2017  Francesco Caprini (Internal Seminar)
13th June 2017 Professor Manos Tsakiris (Royal Holloway, University of London)
20th June 2017 Professor Clare Elwell (Internal Seminar)

13th May, 10.00am – 5.00pm: The Department will be hosting another “Psychology for Education Day” consisting of free workshops for experienced, new and aspiring education professionals exploring how psychological understanding can enhance educational practice. This year the focus will be on children’s and young people's mental health, emotional well-being and learning.

17th May: Dr Gillian Forrester has been invited to give a talk at the Clinical Neuroanatomy Seminar Series at the Institute of Psychiatry Psychology and Neuroscience, King’s College London.

23rd June, 6.00 – 9.00pm, Birkbeck Cinema, 43 Gordon Square
BIMI Sci/Film: The Development of (Trans)Gender – Ma Vie en Rose (Alain Berliner, 1997) with expert discussant Dr Bonnie Auyeung, developmental psychologist (University of Edinburgh)

For free tickets: https://www.eventbrite.co.uk/e/scifilm-screening-the-development-of-gender-tickets-34025948528.
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<tr>
<th>Candidate</th>
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<th>Supervisors</th>
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<tbody>
<tr>
<td>Inês Mares</td>
<td>Processing of eye contact in the subcortical pathway - Testing the ‘fast-track</td>
<td>Prof. Mark Johnson</td>
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<td>modulator’ model</td>
<td>Dr Atsushi Senju</td>
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<td>Dr Marie Smith</td>
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<td>Charlotte Wilfors</td>
<td>Identification of Biobehavioral Markers for Neurodevelopmental Disorders in Twins</td>
<td>Prof. Angelica Ronald</td>
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<td>Prof. Sven Bolte</td>
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<td>Ayden Saffari</td>
<td>Discovering pathways to autism spectrum disorder by using functional and</td>
<td>Dr Emma Meaburn</td>
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<td>integrative genomics approaches to assess monozygotic twin differences</td>
<td>Prof. Frank Dudbridge</td>
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<td>Rebecca Nako</td>
<td>Investigating Category- Based Attentional Selection</td>
<td>Prof. Martin Eimer</td>
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<td>Dr Tim Smith</td>
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<td>Maitrei Kohli</td>
<td>Evolving Neural Networks Using Behavioural Genetic Principles</td>
<td>Prof. Michael Thomas</td>
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<td>Prof. George Magoulas</td>
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<td>(Birkbeck Computer Science)</td>
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<td>Rachael Davis</td>
<td>An Empirical and Computational Investigation of Variable Outcomes in Autism</td>
<td>Prof. Michael Thomas</td>
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<td>Spectrum Disorder</td>
<td>Prof. Tony Charman</td>
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<td>(Institute of Psychiatry, Psychology &amp; Neuroscience, King's College)</td>
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<tr>
<td>Kate Hughes</td>
<td>The uneven profile of memory development</td>
<td>Prof. Annette Karmiloff-Smith</td>
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<td>Prof. Michael Thomas Dr</td>
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<td>Emma Meaburn</td>
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**Dr Matthew Longo** was external examiner of a PhD thesis by Katie Groves at the University of Essex entitled “Visual body perception: Towards identifying objective markers of body image disturbance in brain and behaviour”.
Articles


DOI: [http://dx.doi.org/10.1542/peds.2016-2651](http://dx.doi.org/10.1542/peds.2016-2651)


Books


Calling all Baby Scientists

The Birkbeck Babylab is looking for infants from birth to 18 months to take part in studies at the lab’s premises in Bloomsbury.
To find out more, please see: http://www.cbcdd.bbk.ac.uk/babylab