

Impact template (REF3a)

Institution: Birkbeck College
Unit of Assessment: Psychology, Psychiatry, & Neuroscience
a. Context

The Psychology department at Birkbeck has a successful track record of interactions with government and politicians at the national and local level, with professionals in medicine, psychosocial health and education, with industry, and with clinical groups affected by specific conditions. We communicate psychological science to a wide audience, and are involved in initiatives aimed at engaging the general public with psychological research methods and results.

All of our impact-related activities are research-led. Because our research covers a wide area (from cognitive and developmental neuroscience to child, family, and health psychology), its impact and its beneficiaries reflect this variety. Our four case studies were chosen to represent this diversity. During the assessment period, there were four main areas of impact:

- **Informing and evaluating government social and educational policy** (Beneficiaries: Political decision makers at the local and national level). The department's Institute for the Study of Children, Families, and Social Issues (ISCFSI) evaluates national and local government social policy initiatives to provide the foundations for evidence-based policy decisions. Evaluations include large-scale government programs (e.g., Sure Start, Effective Provision of Pre-School Education), and other initiatives on family and child health, and local communities. Other members of the department have advised senior Whitehall politicians and informed government policy on the implications of neuroscience for educational policies.
- **Commercial links with industry** (Beneficiaries: Commercial manufacturers of research equipment, software developers, other industrial partners). The department has several ongoing collaborative links with industry. These include partnerships with manufacturers of research equipment for EEG, optical imaging, and eyetracking, with developers of research software, and also with companies not directly linked with academic psychological research (e.g. Proctor & Gamble, DreamWorks Animation)
- **Joint initiatives in clinical, educational, and psychosocial contexts** (Beneficiaries: Professionals in healthcare and education; individuals and families affected by clinical conditions). We run many initiatives aimed at translating and applying our research to real-world contexts and concerns. These initiatives involve numerous charities, groups affected by specific conditions (e.g., autism, prosopagnosia), health professionals (e.g., those involved in cancer screening or communicating genetic results), and educational practitioners.
- **Public understanding of Science** (Beneficiaries: General public). Members of the department are involved in activities to enhance the public understanding of psychological science. These include numerous contributions to television, radio, and the print media, and to public events.

b. Approach to impact

Our impact-related activities during the assessment period have evolved as natural extensions of externally funded research projects, through the involvement and input of charities or user groups in our research, via collaborative links with industry, and as a result of our long-standing involvement in the assessment of social policy initiatives. Several departmental structures and mechanisms encourage and support research-led impact activities: At the outset of all research projects and initiatives, their impact potential is assessed within the relevant research groupings and by the department's Research Committee. This committee advises staff on knowledge transfer, research exploitation, and media activities, and facilitates links with the College Business Relations and External Relations departments. The committee also has a dedicated budget to support impact-related activities (e.g., funding for meetings with policy makers, public engagement activities, seed funding for applied/industry-linked projects). Impact is an important aspect of staff members' annual performance development review (PDR) meetings with the HoD, and impact-related achievements are recognized and incentivised by the College's remuneration and promotion processes. The department's PhD training programme includes several impact-related components (e.g., media training, how to establish contacts with industry, charities, and other potential beneficiaries). Our existing structures for impact support are currently under review and will be extended and integrated as part of our new **Research Impact Strategy** (see section c).

To illustrate the diversity and intensity of the department's impact activities during the assessment period, we now provide selected examples for the four key areas listed in section a:

Social and educational policy: Research at the Institute for the Study of Children, Families, and Social Issues (ISCFSI) has had major impacts on government policy. Some of these

Impact template (REF3a)

are described in two case studies (provision of pre-school education; preventive interventions for vulnerable mothers). Other ISCFSI projects include the National Evaluation of Sure Start (NESS), which produced unexpected startling findings (e.g., Sure Start did not initially produce its intended benefits for target groups such as children of single parents or teenage mothers) that led to major changes in government policy during the assessment period (e.g., massively increased spending on outreach and a review of outreach practice, announced by Children's Minister Ed Balls on 4th March 2008 with direct reference to NESS in an official statement by the Department of Children, Schools, and Families). Edward Melhuish is a consultant on early years intervention to government departments (DfE, Treasury, Cabinet Office), think tanks (Institute of Public Policy Research, Policy Exchange), and international agencies (OECD, WHO, European Commission). Other ISCFSI projects providing evidence-based input for government include the Evaluation of Child Bereavement Support Services (funded by the PPP foundation and Marie Curie Cancer Care), a longitudinal study of the care of 1200 children from birth to school age (funded by the Sainsbury Charitable Trust), and The Family and Neighborhoods Study (funded by the National Society for the Prevention of Cruelty to Children) which examines how the local community affects parenting.

The Centre for Educational Neuroscience (CEN; a joint initiative of Birkbeck, UCL, and the Institute of Education) organised public seminars in Whitehall on links between neuroscience and educational practices for policymakers, which regularly attracted audiences of around 100. Michael Thomas and other CEN members advised the Minister for Universities and Science David Willetts and the Deputy Prime Minister Nick Clegg on the implications of neuroscience for educational interventions in teenagers and young adults, in the context of social mobility policy. These meetings in 2011 fed into a policy announcement on a £1 billion Youth Contract in the Chancellor's Autumn Statement (November 2011). Michael Thomas is a consultant to the Global Partnership for Education at the World Bank on implications of neuroscience for adult literacy programmes in developing countries. Mark Johnson contributed research-based recommendations for the government's Byron review on the impact of new technologies on child development (2008). Annette Karmiloff-Smith took part in an Autism reception at the House of Lords (2008), and gave a keynote talk on developmental disorders to the German Ministry for Education (2010).

Links to industry: Our Centre for Brain and Cognitive Development (CBCD) has a longstanding association with EGI, a US-based manufacturer of child and infant-friendly EEG systems, which has resulted in substantial modifications in the design of EEG recording equipment for infants. An ongoing industrial partnership with Acuity ETS involves developing eyetracking systems for infants and adults, method development for co-registering eye movements and EEG, and software programs for gaze contingent experimental paradigms. EGI and Acuity are also collaborators in our current EC-funded Marie Curie Centre grant that bridges academic and industry research. Other collaborators include Proctor & Gamble and ABBEY Media. Each industry partner is involved in the supervision of a PhD student. Together with UCL Medical Physics, the CBCD has developed optical imaging of infant brain function (funded by an MRC project grant), which has led to an infant-friendly NIRS system that can now be commercially marketed. Tim Smith is a consultant for DreamWorks Animation (Los Angeles) on how stereo vision research can aid the development of realistic 3D stereoscopic film. An eyetracking study comparing 2D and 3D movies was presented to DreamWorks as part of their staff-training program on 4th May 2011.

Initiatives in clinical/educational/psychosocial contexts: Our research on atypical development and clinical conditions involves engagement with and support for affected individuals and their families. The CBCD has established the British Autism Study of Infant Siblings (BASIS; www.basisnetwork.org), a unique collaboration with ten charities led by Autistica. BASIS is a national network for the study of babies at-risk for later emerging autism that provides data for many other centres and institutions conducting autism research, and delivers information and support for affected families through newsletters, advisory groups, and the media. As part of our prosopagnosia research led by Martin Eimer, we have established the London Faceblind group (the world's largest support group for individuals with developmental prosopagnosia) and organize an annual Faceblind Open Day at Birkbeck (attended by over 80 participants in 2013). We run numerous other projects with professionals in applied medical or educational contexts. For example, Anne Miles evaluates psychological factors in cancer screening (in collaboration with the Scottish colorectal screening programme), and computerised decision support aids for chemotherapy patients (at the Royal Free Hospital, funded by the Royal Free Charity). Jonathan Smith studies psychosocial aspects of genetic testing, with clinical geneticists at Guys Hospital,

Impact template (REF3a)

Sheffield Children’s Hospital, and UCL (funded by the Department of Health). Jonathan Smith and Virginia Eatough investigate parents’ experience of bringing up a child with Huntington’s Disease (with clinical geneticists and neurologists from several European countries, funded by the European Huntington’s Disease Network). Natasha Kirkham runs a joint project with a London-based theatre company and ten primary schools throughout the UK that addresses bullying, victimisation and community violence in poor neighbourhoods (“Using theatre to combat crime”).

Members of the department regularly communicate their research findings to medical and mental health practitioners, and groups affected by clinical conditions, including autism and other developmental disorders. For example, Angelica Ronald discussed autism with health professionals and policy makers at the Department of Health (May 2012) and at an MRC Mental Health Research Network Meeting (April 2011). Annette Karmiloff-Smith gave keynote addresses to parents at the International Williams Syndrome Conference (Disney Resort Paris, 2008) and at a National Network Day for the association “Parents as First Teachers” (2013). Alex Shepherd discussed her research with health professionals at the London Migraine Clinic (2012) and the Oxford symposium on headache (2012), and produced a health and safety report on visually induced migraine for the construction of the new law courts in Sydney, Australia (2010).

Public understanding of science: Members of the department regularly contribute to the national and international media. Since 2008, research at the CBCD has featured in over 200 print and online media publications, and in television and radio news programs with large audiences such as the BBC Six O’clock News, BBC Radio 4, and BBC World Service. Examples include TV documentaries on BBC2 (*Horizon: ‘What makes a genius’*, 2013), BBC4 (*‘Growing Children’*, 2012) and popular BBC Radio 4 programs (*Life Scientific* with Annette Karmiloff-Smith, 2013; *In Our Time: ‘The Infant Brain’* with Denis Mareschal and Annette Karmiloff-Smith, 2013; *Material World* with Fred Dick, 2010). Other recent TV contributions include interviews with Edward Melhuish on preschool education (*CBC News, Canada*, 2013), and with Martin Eimer on face blindness (*ITV1 - This Morning*, 2012). Staff members also contribute to public events promoting understanding of science include experimental demonstrations and presentations at the Science Museum London (2012), the Barbican Festival of Neuroscience (2013), the Royal Society Summer Exhibition (2009), and the Times Festival of Education (2013).

c. Strategy and plans

Most of our current impact activities have a long-term perspective, and will continue to expand in the coming years. Until now, many of these activities have been generated and coordinated at the level of individual research clusters. To integrate and coordinate existing structures for impact across the department, a new **Research Impact Strategy** is currently being developed, which will be implemented from 2014. As a central component of this strategy, we will appoint a full-time departmental **Impact Officer** in 2014, who will be embedded in our most impact-relevant research units. The role of the Impact Officer will be to establish and facilitate links with beneficiaries outside academia (e.g., charities, clinical groups, professionals in applied areas, industry, politicians, media), to support new impact-related initiatives, to communicate our research to third parties, and to assist all staff members (in particular early-career researchers) in the development of impact strategies for new research projects. The impact officer will also organise workshops with industry, charities, government, and the media, which are aimed to generate new impact-related ideas and initiatives. Existing departmental funding for impact-related initiatives will be substantially increased, and our PhD research training programme will be restructured to include new components related to impact generation and translational research. Implementation of all aspects of the Career and Impact Strategy will be jointly led by the HoD, the Chair of the Department Research Committee and the Impact Officer.

d. Relationship to case studies

Our impact case studies were chosen to demonstrate the diversity of the department’s research-led impact activities. One study shows how basic research into visual cognition can have a direct impact on public art and culture (restoration of a damaged painting at TATE Britain). Another study illustrates one aspect of our collaborative work with industry by showing how a partnership with a multinational company (Proctor & Gamble) has enabled the communication of developmental research to a worldwide target audience. The two other impact case studies demonstrate how research conducted by the Institute for the Study of Children, Families, and Social Issues has affected implementation and practice in preschool education and early intervention, and has resulted in important changes to government policies for families and young children.