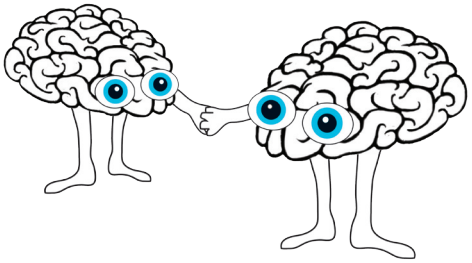
Neuroscience and family life



A policy/public engagement event held at The University of Edinburgh – 2 September 2015

Overview

Research on the brain is increasingly used to inform policy-making and family services, with consequences for parenting advice and parenting practices. This public event considered experiences with policies and services that are informed by research on the brain. It focused specifically on Scotland, and the opportunities and challenges that might come with the use of neuroscientific research.

The event was part of a larger project called 'Neuroscience and Family Life: The Brain in Policy and Everyday Context', funded by the Leverhulme Trust. It was well attended, with people from a range of organisations such as charities, family services, and local authorities, as well as parents participating in parenting programmes. It was chaired by Martyn Pickersgill of The University of Edinburgh, and featured talks from 3 other university staff members: Robin Morton, Tineke Broer and Sarah Cunningham-Burley.

Event participants were invited to put forward questions and reflections about their hopes and concerns around the use of neuroscience for social policy and social services. This short report summarises the talks and discussion.

Engaging users with research on the brain

Robin Morton, The University of Edinburgh

Robin, who works as a Knowledge Exchange Manager for the Centre for Cognitive Ageing and Cognitive Epidemiology (CCACE), gave a presentation in which he described the work done in CCACE, with a particular focus on how to engage different groups with the research that is conducted in CCACE. Research on cognitive ageing (and its associated effects, e.g. quality of life, independence) has increasing relevance in the context of a growing population of older people.

One example of research with which Robin and colleagues engage different groups of people extensively is research conducted using the Lothian Birth Cohort 1936. Participants of this cohort undertook intelligence tests in 1947; these results were found in an archive by researchers from CCACE, who recognised the immense potential of these tests. Over 1,000 of them have been helping researchers investigate the factors which may influence the healthy ageing of the brain.

CCACE is working closely with ageing charity Age UK to engage with policy makers, practitioners and the wider public about the research and its implications for society. For example, exercise and speaking more than one language have been shown to have beneficial effects on the ageing brain. This talk also addressed the multiple channels used and the challenges in translating the research in a way which is simple but effective and proportionate to the evidence presented.

Neuroscience and family life: emergent findings from the project

Tineke Broer, The University of Edinburgh

Tineke presented the emergent findings from the Leverhulme Trust-funded project 'Neuroscience and Family Life: The Brain in Policy and Everyday Context'. The project comprised of several activities all investigating the (non-)use of neuroscience in different areas: an analysis of policy documents regarding the use of neuroscience in policy; an analysis of media coverage of brain training games; 11 interviews with people involved in Scottish social policy and social services; and, 22 interviews with parents of young children. Tineke's talk focused on the two sets of interviews. Drawing on quotes from the interviews, Tineke showed how policy actors as well as families critically engage with research on the brain and scientific evidence more in general. Policy actors tend to draw upon research on the brain as it helps them to think through a policy as well as seek funding and support for a policy; the research can act as a "unifier" (in the words of one of the interviewees). Parents similarly use research on the brain; for example, they talked about how it made them more patient and understanding, and in general they expressed great interest in knowing more about how their children's brains develop. However, both these groups were simultaneously critical; for instance, they stated that research on the brain was misused in some contexts, as well as how it did not always lead to the most constructive and practicable advice for parents. In that sense, the research was not necessarily seen as applicable, both in policy contexts and in family life, and respondents across the two groups of interviewees talked about having to do work to make the research actionable, by simplifying the science or by picking what is relevant while ignoring other evidence.

Discussion

The presentations promoted wide-ranging discussions of the experiences and concerns of the event participants. The core features of these discussions can be broken down into three broad and overlapping themes, explored overleaf: (1) Weighing of different kinds of evidence and the place of neuroscience; (2) The complexity of parenting advice; and (3) The need for holistic understandings.

Weighing of different kinds of evidence and the place of neuroscience

One dominant question during the discussions was why the neurosciences have so much impact, and why they are more immediately appealing than, for example, attachment theory. It was stated that neuroscience is a validation of what social work has said about attachment theory for a long time, but where social work is perceived to be not always taken seriously, science generally is. One possible explanation is that neuroscience produces knowledge that can be made visual (e.g. through brain scans), which makes it easier for people to understand. Some participants felt that neuroscience is used to enact policies that are already wanted, and are thus used as a justification while at the same time being treated in quite a 'reductionist' way. Participants furthermore argued how evidence could be used to support the removal of children from parents early when there are problems or, in contrast, to give such families extra support in order for their children to be more likely to stay in the family. More generally, there was a feeling that some understandings of neuroscience could lead to professionals 'telling parents what to do'. Finally, other participants argued that neuroscience is used because it 'works,' and it helps to connect with parents.

The complexity of parenting advice

Some participants were concerned about using research on the brain for parenting advice, as they felt it would place blame on parents for any childhood issues. Further, they felt that parenting programmes were sometimes perceived as being for 'bad' parents who get referred to such programmes by, for example, their social worker. Other participants, however, argued that advice related to children's brain development could be 'empowering'. Notions of neuroplasticity (the continuing capacity of the brain to change) were introduced here as well, to argue for a more hopeful and less deterministic message. Generally, what the parenting programmes were perceived to do is enhance parents' understandings and confidence, as well as helping them build emotional connections with their children. Neuroscience is also seen as able to normalise behaviour that may previously have been considered problematic. Finally, discussions noted the complexity of parenting advice, in which some practices such as "letting babies cry out" have received negative attention whereas at the same time it is not easy to give universal advice as parents need to do what works for them and their family. One way in which participants felt this complexity could be addressed was through embedding research on the brain within other kinds of research and other topics.

The need for holistic understandings

While research on the brain was generally felt to be important for parenting programmes, most participants also argued that it should not just be about the brain. People involved in organising parenting programmes mentioned that neuroscience is but one aspect of the programmes, with the importance of attachment theory especially being addressed extensively as well. Moreover, the need for a holistic understanding of the body and development was mentioned on several occasions, where socioeconomic circumstances were deemed important and impact on children's (brain) development too. While most of the discussion focused on the early years and on parenting advice – given the background of many of the participants – neuroscience in relation to older age was discussed as well. One way in which this occurred was through discussions on how decisions (i.e. about lifestyle) impact how we age, and how keeping fit for example is deemed important for remaining cognitively healthy. It was mentioned here too though that people often find it difficult to make the link between the body and the brain, and thus to understand why keeping fit helps the brain. More generally, participants argued against purely neuroscientific understandings of development and of the brain, and stressed the importance of taking into consideration a range of factors that influence brain development and cognitive ageing.

Concluding reflections

Sarah Cunningham-Burley, The University of Edinburgh

Sarah is a Professor of Medical and Family Sociology, and Dean of Molecular, Genetic and Population Health Sciences at The University of Edinburgh. She reflected on the afternoon's discussions and started by noting how service actors and families are able to engage critically with evidence. Sarah suggested that there is a fundamental question about what we mean by 'evidence': it is not something just out there 'in the wild', but is actively created, shaped and translated. She asked, building on the discussions earlier in the afternoon, what is it that is compelling about particular types of evidence? Neuroscience can clearly be characterised as influential not least because many people talk about it and also react against it. Some of the associated visual representations are highly compelling: images of brain scans, for instance, can be used to convey information with power and clarity - but also carry the risk of being over-interpreted as concrete, objective evidence in a still developing field. Nonetheless, biological knowledge can perhaps support us in developing family policies and services, she argued, and can be used to emphasise human beings' capacity for development across the life-course. Yet, developments in science and their uptake in policy, practice and the public imagination always takes place in a wider societal context, and we must remain alert to the potential for (neurobiological) research to be used as a tool for more oppressive interventions as well as positive supports for parents and their parenting.

For more information on the Leverhulme Trust 'Neuroscience and Family Life' project, please see:
www.neuro-societies.ed.ac.uk

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