

## Biologising parenting: Neuroscience discourse and parenting culture

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### Introduction

This paper comes out of a study *Biologising Parenting: Neuroscience discourse and English social and public health policy*, funded as part of the Faraday Institute's 'Uses and Abuses of Biology' Grants Programme. The trend we are exploring through this research is the growing propensity for policy makers to claim that 'new brain research' provides us with a new way of understanding how to raise children. Specifically, we are interested in how that has been translated into policy relating to the family.

It might be useful here to mention that we make the distinction, in our research, between *neuroscience*, which has brought exciting insights to our understanding of brain function and dysfunction, and *neuroscientism*, which is an ideological attempt to discover the essence of humanity in the brain. *Neuroscientism*, or neuromania, or neurobollocks, is currently the subject of much study, debate and critique in many different areas of academia. We find this distinction useful because it allows us to separate the work of scientists within the scientific domain from the activities of those who appropriate the authority of scientific objectivity to pursue moral, political or commercial agendas in the public sphere. Most of the time, neuroscientists themselves have been notably absent from, and even critical of, brain-based advocacy, however, there is a tendency for some of those conducting research on brain function to speak beyond their scientific findings, to suggest that their research may allow lessons to be learnt for the proper conduct of human relationships (Bruer, 1999).

### Optimizing and warning

In cultural and political discourse, the lessons drawn for child-rearing from apparently new neuroscientific discoveries tend to take one of two forms which I find it useful to characterise as 'optimizing' or 'warning'. For example, comments in a lecture by Canadian psychiatrist Dr Jean Clinton, demonstrates the brain 'optimization' approach in which neuroscientific knowledge is claimed to underpin new insights into how we might enhance our child's brain capacity by loving and stimulating them in particular ways.

- ✓ I'm going to be talking about, it's not the terrible twos, it's the terrific twos, and talking about some of the behaviours that we see in the little ones, and ways of understanding where the behaviour comes from," Clinton said. "It's their brain developing and their curiosity and their need to learn. Sometimes parents can misinterpret the behaviour as either not doing what they are told or doing things over and over again like dropping keys from the high-chair, and we have to look at that and say 'Wow! She's experimenting' rather than, 'Oh! She's driving me crazy.' ...We now know that babies are more like little scientists and are observing us all the time," said Clinton. "We now know that we are, quite literally, building the

architecture of their brains, and quite literally sculpt what areas will be strong and what areas will be weak" ... "I don't just talk about the science," she said. "I talk about how does this science apply to me as a mom, as a dad and what I can do." The Sudbury Star 10/4/2013 'Neuroscientist talk aims to give parents insight'.

<http://www.thesudburystar.com/2013/04/10/neuroscientist-talk-aims-to-give-parents-insight>

As we can see from her description of the baby as a 'little scientist', Clinton sees the infant brain as a source of wonder, with babies naturally predisposed to forge connections with caregivers and to experiment with the world around them. This positive-sounding approach lends itself to the marketing of parent-training seminars and books, as well as brain-stimulating products such as 'Baby Mozart', 'Baby Einstein' or 'Baby Newton' toys and DVDs, which are advertised as tools to assist parents in maximising their child's emotional and cognitive potential. Expert mediators, such as Dr Clinton, are positioned as necessary to educate parents in appropriate ways of interpreting and interacting with their child.

The 'warning' perspective has more pessimistic connotations, expressing anxieties about social disorder and alienated individuals but also constructing particular social groups (usually the poor) as neurologically disadvantaged and behaviourally problematic. The 'warning' outlook predominates in the arguments of those calling for greater policy intervention in the 'early years'. Here it is evident in an interview with Andrea Leadsom, a Conservative member of the UK parliament, and an eager advocate of brain-based early intervention policies:

The period from conception to two is about the development of a baby's emotional capacities," she says. "Mum saying: 'Oh darling, I love you', and singing baby songs and pulling faces literally stimulates the synapses in the brain." Citing the example of neglected Romanian orphans whose brain growth was stunted, and research into the impact on babies of the stress hormone cortisol she argues that poor early parenting experiences and weak attachments make it far more likely that there will be a whole range of problems later on. "If you're left to scream and scream day after day, your levels of cortisol remain high and you develop a slight immunity to your own stress, so what you find is babies who have been neglected tend to become risk-takers," Leadsom says. "The worst thing, however, is the parent who is inconsistent – you know: sometimes when I cry my mum hugs me and other times she hits me. That is where the baby develops an antisocial tendency. Kids who go and stab their best mate, or men who go out with a woman and rape and strangle her – these are the kinds of people who would have had very distorted early experiences." (Guardian, Tuesday 27 November, 2012, 'Andrea Leadsom: Lobbying for more support for parents and children')

<http://www.guardian.co.uk/society/2012/nov/27/andrea-leadsom-lobbying-parents-children>

In this invocation of brain science, the effects of inappropriate parenting are inscribed in the infant brain, bearing consequences not just for the child and its parents, but for society as a whole. Despite the apparently social orientation of the 'warning' perspective, it is ultimately what individual parents do that creates social disadvantage and social problems from the

individual upwards, with a clear imperative for the state to act to ensure that all parents follow a path proven to be correct by scientific evidence. Similarly, within the apparently more optimistic 'optimization' approach articulated by Clinton, which seems to see babies as possessing an in-built drive to develop, parents are still ultimately held responsible for the way their children mature, for good or bad. According to the Professor, the brains of babies are 'literally sculpted' by their parents and so the importance of getting it right, could presumably never be under-estimated. Importantly, although parents are said to be the most significant influence on their child's development, it is clear from Clinton's and Leadsom's words that they are also assumed to be out-of-step with their baby's true emotional and cognitive state until they familiarise themselves with the latest scientific explanations for their child's behaviour. In both the 'optimizing' and the 'warning' strands of neuroparenting discourse, then, the feature they hold in common is the dual presumption of parent determinism combined with parental incompetence.

### **Brain claims and policy**

I want to turn now to the way in which the claim that 'new brain research' poses an imperative for policy-makers to act in new ways has been mobilised. The backdrop to brain claims in the policy sphere is provided by the tendency to politicise parenting. Hulbert identifies 'the beginnings of a deferral by policy-makers to neuroscience' in a report by the US Carnegie Corporation in 1994. Entitled 'Starting Points: Meeting the Needs of Our Youngest Children' the report spoke of a 'quiet crisis' caused by family change and persistent poverty, but began in dramatic terms:

Our nation's children under the age of three and their families are in trouble, and their plight worsens every day.' (1994, p.1)

According to Hulbert, although Americans had become "'habituated" to outcries about imperilled children' (2004, p.311) the attention-grabbing claim of Starting Points was not its doom-laden call to arms but its 'perfectly pitched' claims that a new neuroscientific evidence-base existed, proving that the 'quiet crisis' was caused by the child's 'environment' in the earliest years of life (2004, p.311). Of course, when it comes to very young infants, and in particular to fetuses, 'the environment' is not communities or society, but their parents, or more particularly, their mothers. So while the focus appears to be on deprived areas and poor neighbourhoods, in fact, the object of attention is the womb and the home.

A significant critique of both the accuracy and the impact of brain claims emerged soon after the 'I am your child campaign' was launched, particularly influential has been John T. Bruer's book, *The Myth of the First Three Years*. As Bruer points out, a significant feature of the 'brain message' is that it has not been disseminated by scientists but by child welfare advocates.

The brain claims made in 'Starting Points' in the US are startlingly similar to those made by early intervention advocates in other countries and in the decades since. As Wall describes, they crossed the border into Canada, with 'I am your child' being heavily promoted by the Canadian Institute of Child Health (Wall 2004, p.42). Wilson reports the incorporation of the same brain claims into family policy in New Zealand back in 2002 (Wilson, 2002). Their

persistence suggests that the idea of a neuroscientific revolution providing new rationales for tackling social deprivation serves an important purpose in reinvigorating demands for resources but also in redefining the nature of the social problems of poverty and inequality.

In the UK, the argument that focusing on babies' brain development is the only way to prevent a multiplicity of social problems from unemployment, lack of social mobility and educational under-achievement, to crime, violence and anti-social behavior have strengthened since their emergence in the mid-2000s. Brain claims have become a notable feature of family policy since the election of the Coalition government in 2010 and brain-based training programmes for professionals are now being rolled out nationally in health, social care and education services. The repetition of claims echoing the Carnegie Report is evident in Labour MP Graham Allen's 2011 report, *Early Intervention: The Next Steps*:

The early years are far and away the greatest period of growth in the human brain. It has been estimated that the connections or synapses in a baby's brain grow 20-fold, from having perhaps 10 trillion at birth to 200 trillion at age 3...The early years are a very sensitive period...after which the basic architecture is formed for life...it is not impossible for the brain to develop later, but it becomes significantly harder, particularly in terms of emotional capabilities, which are largely set in the first 18 months of life. (Allen, 2011, p.6)

Politicians who advocate brain-based strategies argue that if individuals with fully-functioning brains are created from conception, state services will not have to cope with the consequences and costs of poverty 'upstream', in future years (Allen, 2011; Allen and Duncan Smith 2008 and 2009).

In reports such as this, poverty and social disorder are attributed to individual emotional and cognitive dysfunction, 'written into' the brain in the earliest years of life by inadequate parenting. This approach is prominent in the UK's Nurse Family Partnership programme (adapted from the US Family Nurse Partnership scheme) which claims to 'break the cycle' of dysfunctional behaviour presumed to be evident in, and transmitted intergenerationally by, those who have babies in their teens.

### **Accounting for the appetite for brain claims**

Given the substantial and longstanding critique of the veracity of brain claims, how do we account for the persistence of apparently spurious 'neuro' thinking?

The dual construction of the brain as both wondrous and vulnerable, as susceptible to both optimization and to damage, means that brain discourse can have a potentially universal appeal – allowing parents to voluntarily take up products and services to enhance their parenting skills but also providing a rationale for state agencies to persuade or compel parents who have shown or are predicted to show parental deficiencies, to engage with professionals in parent-training programmes. While taking children to baby-signing classes, playing Mozart to a fetus via specially purchased 'belly' speakers or committing to extended breastfeeding may appeal only to a particular kind of mother, brain-based exhortations can also be less faddish and more banal. An attempt by UK brain advocates to make attachment

ideas accessible to all parents and to educate them in brain-based understandings of child development demonstrates how existing practises tend to be reinforced rather than overturned by neuro-claims. Based on the 'Five-A-Day' public health campaign to promote the consumption of fruit and vegetables, the recommended parental priorities promoted by the 'Five to Thrive' campaign are 'Talk, Play, Cuddle, Relax and Respond'. Those who designed the campaign for policy-makers were particularly sensitive to the need to reinforce what parents already do rather than to alienate them from state services by being seen to preach novel techniques from a distance. We can see here that by rooting official parenting guidance in brain-based claims and delivering it through child health professionals, the advice gains the legitimacy of being objectively health-based rather than being perceived as promoting a particular moral agenda.

Kagan (1998) argues that the appeal of brain claims resides in the prior cultural tendency towards 'infant determinism' in which the early years are said to determine adult lives. While the use of a neuroscientific vocabulary of synapses, neurons and cortisol appear to bring scientific advancements to bear on parenting, the recommendations derived from it tend to chime with existing commonsense ideas about what constitutes good parenting.

The persistence of deterministic ideas despite evidence which seems to suggest the contrary indicates that the ideology of infant and parent determinism is prior to, and stronger than, any actual evidence emanating from the scientific domain. As Furedi puts it, this is 'prejudice masquerading as research' (Furedi, 2008, p.163).

### **Writing children off, holding parents to account**

As Hulbert draws out, despite the intentions of the US brain advocates (such as Rob Reiner) to make a case for public funding of programmes to help children, the consequences of the way brain science has been used has been a profound fatalism and pessimism.

However, it is equally important that this fatalism is not absolute – it takes a negative form only if parents fail in their duties to nurture and stimulate the child. The idea of a critical period for development between conception and three years of age, while reducing any sense of a child's agency to a remarkably short time-frame, actually creates an imperative for the parent to exercise a huge amount of agency in doing the right thing for their child. Despite this apparently de-moralised framework, not only do brain claims shut down any discussion about different ways of raising children, they also promise to make parental love directly measurable in the behavior of their offspring. Parental love becomes literally embodied in the child's brain, evident in the child's happiness and achievements and theoretically 'readable' through the technology of the brain scan. In this way, parents are held to account for an impossibly burdensome range of decisions by an apparently objective locus of authority – the brain.

At the most extreme end of 'early intervention' in the name of protecting infant brains, it becomes legitimate for the state to remove children from their birth parents on preventative grounds: the argument is made that we can now identify which babies are at risk of neglect from their birth parents prior to any neglect actually occurring, such children should be removed and adopted by other, more suitable parents at the earliest opportunity,

to prevent damage being inflicted on their brains by inadequate care in the early months of life (Featherstone, Morris and White, 2013).

### **Shutting down debate**

Policies enacted by the state to ensure 'correct' child-rearing have clear moral and political underpinnings and ramifications, and yet recourse to the biological serves to obscure what should be a highly controversial agenda. As Bruer says, 'The findings of the new brain science have become accepted facts, no longer in need of explanation or justification' (1999, p.61), but more than this, such claims 'float free' of particular experts, theories or interest groups by gaining the authority of nature in the form of the biological organ of the brain.

### **Individualizing social problems, redefining family life**

A strong theme in the critique of neuro-parenting is the resonance between the values it encapsulates and what is described as the ideology of neo-liberalism. Wall describes neo-liberalism as placing greater emphasis on 'the ability of individuals to adapt to change, to engage in self-enhancing behaviour, and to manage the risk they pose to themselves and thus reduce their potential burden on society' (Wall, 2004, p.46). Others have also associated the arguments for brain-based early intervention with a desire to cut welfare spending and to 'responsibilize' the raising of children solely to parents, in particular, mothers (Gillies, 2013). This concurs with Wall's assessment that,

The focus on educating parents fits well with a model of individual responsibility and privatized parenting. It does not require governments to re-invest in the welfare state and design policy to alleviate poverty, provide affordable housing and child care services, and improve employment practices. (Wall, 2004, p.47)

However, it is clearly not the case that families are being 'responsibilized' to the extent that they are left to their own devices in the way they raise their children. Wall acknowledges that, 'While governments may not be prepared to invest socially in families with children, they are prepared to increase scrutiny and control in an effort to ensure that parents fulfill their individual responsibilities'. (Wall, 2004, p.47)