



## 'What Science Says is Best': Parenting Practices, Scientific Authority and Maternal Identity

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### Abstract

Based on research in London with mothers from a breastfeeding support organisation this paper explores the narratives of women who breastfeed 'to full term' (typically for a period of several years) as part of a philosophy of 'attachment parenting', an approach to parenting which validates long term proximity between child and care-taker.

In line with wider cultural trends, one of the most prominent 'accountability strategies' used by this group of mothers to explain their long-term breastfeeding is recourse to scientific evidence, both about the nutritional benefits of breastfeeding and about the broader cognitive and developmental benefits of attachment parenting more broadly. Women's accounts internalize and reflect popular literature around attachment parenting, which is explored here in-depth as a means of contextualizing shifting patterns of 'scientisation'. What follows is a reflection on how 'scientific evidence' is given credence in narratives of mothering, and what the implications of this are for individuals in their experience of parenting, and for society more broadly. As a form of 'Authoritative Knowledge' (Jordan 1997) women utilise 'science' when they talk about their decisions to breastfeed long-term, since it has the effect of placing these non-conventional practices beyond debate (they are simply what is 'healthiest'). The article therefore makes a contribution to wider sociological debates around the ways in which society and behaviour are regulated, and the ways in which 'science' is interpreted, internalized and mobilized by individuals in the course of their 'identity work'.

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**Keywords:** Parenting, Psychology, Neuroscience, Scientific Authority, Maternal Identity

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### Introduction

**1.1** This paper emerges from a research project involving a network of mothers – in London – who breastfeed their children to 'full term'. Typically, this would be up to the age of three or four, though ranged, in this case, between one and eight years old. In line with a 'hominid blueprint', other typical practices amongst these mothers include breastfeeding 'on-cue', bed-sharing and 'baby-wearing' as part of a philosophy of what is called 'attachment' parenting.

**1.2** In more or less overt ways, these mothers frequently face criticism for their decision to parent in such a way. To this end, the paper explores one of the most prominent 'accountability strategies' used by this group of women to explain their non-conventional practices: recourse to 'scientific evidence'. This 'science' includes both the nutritional benefits of full-term breastfeeding, and the purported neuroscientific, cognitive and developmental benefits of attachment parenting more broadly. Women's accounts internalize and reflect popular and expert literature around parenting, which is presented here as a means of contextualizing shifting patterns of 'scientisation'. Far from being common-sense, the argument is that the relationship between scientific research and everyday practice requires considerable interrogation. The article shows how mothers internalize and employ scientific discourse as part of their own 'accountability' and identity work, often with quite divisive effects. This adds to our understanding of how 'science' tends to get mobilized, interpreted and used in contemporary parenting discourses (Bruer 1999; Wall 2004, 2010; Wilson 2002).

**1.3** I should stress at the outset that there is no evidence that long-term breastfeeding and attachment

parenting are harmful, either psychologically or physiologically to mothers or children, but nor is there evidence that parenting in 'conventional' (i.e. non-attachment ways) is damaging.

## Methodology

**2.1** The research for this study involved long-term ethnographic fieldwork with women in London's *La Leche League International* (LLL) groups, the world's foremost breastfeeding support organization. The group was founded in 1956 in the United States by a group of seven mothers, to support all women who wanted to breastfeed their babies. It has now become a global organisation offering breastfeeding support through publications, telephone helplines and local meetings. Whilst it offers support for all women who want to breastfeed, it is known amongst the various breastfeeding support groups to be supportive of women who breastfeed for 'extended' periods, and has a significant proportion of members who practice 'attachment parenting.' This was a term coined by William and Martha Sears (the husband and wife paediatrician team) in the 1980s, and is a style of care which endorses long-term proximity between infant and care-taker (most typically, the mother). Drawing on the work done by Bowlby into attachment and Klaus and Kennel on bonding, as well as a wealth of evolutionary arguments, the logic is that babies have expectations that must be met if they are to mature into healthy, productive and happy children and adults (Bobel, 2002: 61).

**2.2** Feeding, arguably the most conspicuously moralized element of mothering, was the focus of this study. Because of its vital importance for the survival and healthy development of infants, feeding is a highly scrutinized domain where mothers must counter any charges of practicing unusual, harmful or morally suspect feeding techniques (Murphy 1999). Strong feelings about feeding are derived from the fact that it operates as a 'signal issue' which boxes women off into different parenting 'camps' (Kukla 2005). Over the course of eight months in 2006, participant observation at ten local LLL groups was complemented by 22 semi-structured interviews and 25 questionnaires with individual women.<sup>[1]</sup> Mothers were in the vast majority white, in their thirties (on average, 34), well-educated (to university level or equivalent), not currently working, and married. Those that were identified as 'full-term' breastfeeders and attachment parents made up just over half of the sample, and it is their accounts I focus on here.<sup>[2]</sup> Certainly not all mothers in the organization breastfeed to full term, though I engage particularly with the accounts of those who do, and with the values they promote and enact. In taking their feeding practices to the extreme, they magnify mainstream issues around motherhood and the construction of the self. These accounts do not represent official LLL philosophy, but are rather particular women's understandings of their breastfeeding experiences, equally influenced by broader philosophies of 'natural' or 'attachment' parenting.

**2.3** The WHO states that breastfeeding in developed countries should be exclusive for six months and continue 'for up to two years, or beyond' in conjunction with other foods (2003). There are no statistics for the number of children breastfed beyond a year in the UK, though by six months 75% of children are totally weaned off breastmilk, and only two percent of women breastfeed exclusively for the recommended six months (Department of Health 2005). Women breastfeeding to full term are non-conventional, inviting critical engagement with the 'accountability strategies' they undertake to explain why they do what they do (Strathern 2000).

**2.4** 'Accounting' – literally, the act of giving accounts – means simply explaining why you are doing what you are doing. Far from being removed from everyday sociality, as notions of financial accounting might imply, accountability is always going on. 'Whether in what we say, or by what we do, we are always giving explanations and reasons for our conduct' (Munro and Mouritsen 1996: 4). Accountability – in the sense of rendering intelligible some aspect of our selves – 'is a distinctive and pervasive feature of what it is to be human' (ibid: 23). Indeed, many scholars have emphasized the role of language in the constitution of personhood, and have argued 'that human beings actually live out their lives as 'narratives', [and] that we make use of the stories of the self that our culture makes available to us to plan out our lives... to account for events and give them significance, to accord ourselves an identity' (Rose 1999a: xviii). Typically, these mothers narrate their decision to continue breastfeeding as 'natural': 'evolutionarily appropriate,' 'scientifically best,' and 'what feels right in their hearts', the second of which is of interest here (Faircloth 2009a, 2009b, 2010). None of these strategies function alone, but work symbiotically to sustain women's identity work. My argument in this paper is that 'science' occupies a special place in women's identity work, foregrounded over 'evolution' and 'affect' in the public presentation of accountability.

**2.5** After Goffman (1959), attention to 'identity work' – in this case the narrative processes of self-making that mothers engage in as they raise their children – is part of an argument that for certain middle-class parents in the UK, the word 'parent' has shifted from a noun denoting a relationship with a child (something you *are*), to a verb (something you *do*). Parenting is now an occupation in which adults (particularly mothers) are expected to be emotionally absorbed and become personally fulfilled; it is also a growing site of interest to policy makers (Lee and Bristow 2009). 'Ideal' parenting is financially, physically and emotionally intensive, and parents are encouraged to spend a large amount of time, energy and money in raising their children, often with the aid of 'experts' (Hays 1996). This 'intensive parenting' climate, I argue, has changed how parents experience their social role.<sup>[3]</sup>

**2.6** Expertise derived from 'Science' is not a discourse confined to parenting, of course – it is probably *the* dominant culture, or 'Authoritative Knowledge' in post-industrialised societies (Jordan 1997). As Erikson notes:

We live with science: science surrounds us, invades our lives, and alters our perspective on the world. We see things from a scientific perspective, in that we use science to help us make sense of the world – regardless of whether or not that is an appropriate thing to do – and to legitimise the picture of the world that results from such investigations (2005: 224 in McCaughey, 2008:9).

**2.7** Throughout this paper I understand 'science' as a situated knowledge – to use Haraway's term (1988) –

as a means of calling to attention the fact that it at once has a bearing on reality 'out there' at the same time that those truth claims, and their application to parenting practices, require contextualisation. As Latour's work makes evident, science does not merely represent 'nature' (itself a representation), but embodies the interests of the social actors involved in its production (1993). To some extent, this paper explores the relationship between science and society, whilst acknowledging that the production of scientific knowledge is a deeply social project. Corsín Jiménez notes that the means of producing scientific knowledge has undergone a transformation – the validation of knowledge as scientifically robust is no longer a project for scientists alone: 'Today, society decides what makes good science' (Corsín Jiménez 2007: 39).

## Findings

### *Giving the best*

**3.1** In a questionnaire conducted with my informants, the three most cited reasons for feeding one's child with breastmilk were that it was 'best,' that it provided immunity from illness and that it was 'most natural.' This response from Alice<sup>[4]</sup> – a 47 year old mother to 25 and 15 year old sons, and a five-year-old daughter, whom she had just weaned – was typical (if somewhat more extensive and 'glossy' than others):

#### **Why was it important to feed your child with breast milk?**

It was the food made especially for my baby.

Breastfeeding brought us closer together and helped us get to know one another.

It taught my child to trust me and feel safe.

I only wanted the best for my child.

I couldn't give my baby a substitute knowing I was withholding the best.

I believe it is a child's birthright.

I wanted to give my child the best food available.

I wanted them to have healthy immune systems, good dental formation, and general good health.

I wanted my children to be mentally and socially healthy.

I wanted to be able to feed my child whenever he needed to be fed. I could not bear the thought of him being distressed waiting.

I am aware of the dangers of artificial feeding.

I want my children to have healthy attitudes to food for life. This involves them being active rather than passive feeders from birth.

**3.2** Certainly, the use of 'health' and 'science' is a prominent accountability strategy in women's accounts. When I asked women why they were 'still' breastfeeding, for example, they would usually answer by turning my question around: why would you stop? Breastmilk – and the immunity and nutrition it provides – continues to be beneficial at whatever age it is consumed, they told me:

*Charlotte: The mums who decide to feed for a long period of time... What would be the arguments for that?*

Jane [25, breastfeeding her 16 month old son, Leader Applicant]: It's just as nutritious as the day they were born, so that is great. And just things like, last week I was really ill, and I couldn't get out of bed, and we just stayed in bed breastfeeding, and he was still getting all the nutrition he needed, and that would probably apply if he was a bit older too... and when he is upset or anything, or poorly, it is just such a comfort...Mmm. Yeah, there are lots of health benefits there for the mother as well, and for the baby.

**3.3** There was also a definite sense that women felt that by mothering in the attachment parenting style, they were building 'secure emotional foundations' for their children:

Sally [42, breastfeeding her 1 year old daughter]: ...I hate to sound preachy. But we really hope that by the time she is a teenager, she will have had her fill of being held and touched and breastfed, and be quite a secure person.

### **'The Science' and 'informed choice'**

**3.4** The use of scientific evidence about infant feeding is typical in LLLI texts and in meeting presentations (where the *Womanly Art of Breastfeeding* would often be consulted). Information derived from this research is the basis on which parents are expected to make an 'informed choice' about how they raise their

children. To this end, LLLI leaders with whom I spoke were very clear that the purpose of the group is to provide people with 'information, not advice' (often because parents did not receive adequate information and support from public sources). The implication is that this information has 'no emotional content':

Jemima [Leader] One of the things you will find between LLL and the other organisations is that we do not give advice, we give information and support. We [says forcefully] DO NOT GIVE advice – that is hammered home in our training; we give information and support. We meet people wherever they are in their breastfeeding relationship and experience. That is where we will meet them and offer them the support that they need to deal with where they are at the time... we are not a proselytising or evangelising organisation.

**3.5** Giving women 'real' information – such as that derived from 'scientific' studies<sup>[5]</sup> – is seen by the LLLI leaders to whom I spoke to be a means of empowering them, by offering an informed choice. Should mothers feel guilty about not having breastfed to full-term (either now or in the past) then this information offers them the chance to change their choices in the future:

Jemima [Leader]: I think that people that feel guilty need to reassure themselves that they never wanted to do the worst for their baby, they wanted the best for their baby, and they must have made choices...based on the information they had at the time, and what was right for them and their family. If they have subsequently found other ways of doing things, then again they are free to make changes...And that does not need to be with any recriminations. Because we are a learning mammal, and are able to look at a situation with different things; we learn things.. and so 'with this information I can react in this way.'

**3.6** Thus guilt is understood by some LLLI leaders as a *useful* emotion for women to feel – if it spurs them on to acting in a different way.<sup>[6]</sup> Despite the discourse of 'choice', then, where long-term breastfeeding and attachment parenting is deemed scientifically best for children, the contemporary 'intensive motherhood' framework dictates that 'good mothers' will be attachment mothers (Hays 1996). In this respect there are certain parallels with other reproductive 'choices' that women must make – such as about pre-natal testing or abortion (Rapp 2000; Solinger 2001) – where choice is a question of 'ought,' not 'is.' For those who do not (or cannot) make the 'right' choice, there is potential for guilt and judgement by oneself or by others for failing at the tasks of 'good' mothering (Knaak 2006).

**3.7** This is evident in the way Amelia talks about people who *have* been 'educated' about the benefits of breastfeeding and still do not breastfeed, who she calls 'wilfully ignorant':

*Charlotte: When you say you want to be involved in activism, would that be with LLL?*

Amelia [33, breastfeeding her almost 3 year old son, my emphasis]: Yeah, possibly, I was thinking of training to be a leader, but it is quite intensive, and I am finding things with my son to be quite a challenge to be honest...there are a lot of stay at home mums, for example, in [my area], but who don't see the value in breastfeeding for any length of time... and I think, *that reaches the level of a wilful ignorance at some point.* You are better focusing your efforts on *people who haven't made an informed choice to be ignorant.* Like, maybe the younger mother... living chaotic lives, breastfeeding makes life a lot easier.

### **From preference to obligation**

**3.8** In *Being Good* (2001) Blackburn uses the example of the abortion debate in America to talk about how social problems get moralised, 'becoming not just a question of sympathy or concern, which admit of gradations, but of who has *rights*, or what *justice* requires, or what our *duty* is...They have a coercive edge....They take us to thoughts about what is *due*. They take us to demands' (2001: 61).

**3.9** In some cases, then, women in my sample could be quite forceful about what they considered a mother's duty. In the questionnaire, I asked women, 'Do you think that if she can, a woman should breastfeed her child?' Of 25 responses, 15 said 'yes,' (though some women lamented the phrasing, and were adamant that this should not be a question of 'ought'). Yet when I asked why other mothers might not want to breastfeed, comments such as these were typical:

Claire [38, 7 year old son, breastfeeding 11 month old son] They put themselves before their babies/children but babes only need us like this for a relatively short time overall in breastfeeding, it's no real hardship is it?

Debbie [46, 8 year old son, breastfeeding 4 year old son] A lot of women want a life away from their children and you cannot do both.

**3.10** Women who had stopped employed work (as many of my informants had) might be said to have a greater investment in motherhood as a source of identity work than those who had not. Several women pointed out that work is not possible if one wants to be able to breastfeed to full-term (and, we could infer, parent in an attachment parenting style.)<sup>[7]</sup> As Felicity put it in the questionnaire:

### **12. Do you feel that you have to explain your decisions about how you feed your infant(s) to other people?**

Felicity [33, daughter of 12, just weaned son of 2 years old, Questionnaire response] Yes

*Please say a little more, and how this makes you feel, as a mother:*

I'm educated enough now about the issues not to give a damn what others think... ignorant, status quo following puppets... plus I'm not English so I'm used to people judging me for my "different" ways of doing things.

**3.11** She continues:

*What is your most common reaction to being judged over your decisions [to continue breastfeeding]?*

Fight back with 'did you know...' interesting research, facts, stories... my decision is evidence based and theirs [those who do not breastfeed into toddlerhood] is not. Then again, I'm really well read on this stuff now. I'm super empowered with the knowledge I have.

**Advocacy**

**3.12** The scientific benefits of breastfeeding and attachment parenting serve as a (seemingly) morally neutral cannon about which mothers can defend their mothering choices and 'spread the word' about appropriate parenting. I noticed that for some particular women, sharing 'information' with other mothers (either on a one-to-one basis or through the more formalised activism) was a source of great enjoyment – as Felicity in the quote above puts it, she is 'super empowered' with the knowledge that she has. Amelia, cited above, also said that she felt 'like a genius on a planet of idiots.' Any criticisms she has of other women are de-personalised, because science 'has no emotional content.' This meeting observation makes a similar point:

A mother describes how she responds to those who criticise her decision to breastfeed her son until his seventh birthday, by saying: 'I mean, do you want to see studies? Because I can show you studies!' There are laughs and cheers from the rest of the group.

**3.13** Arguably, 'science' here is not about understanding, but belief. The use of 'evidence' has reached the level of the quasi-religious; not in the sense that the beliefs are other-worldly (quite the opposite) but that they are held to be beyond the possibility of doubt and revered as truth.

**3.14** Certainly, at meetings, it wasn't unusual to hear mothers – generally the 'hardcore of the hardcore' as one woman put it – speak quite vocally, and quite critically, about mothers who do not parent their children in ways akin to attachment parenting. Often, this was in very forceful ways, though LLLI leaders would be keen to temper any 'over-zealous converts' (who one leader described as 'more LLL than LLL'). This zealotry was most obviously brought home to me in the reactions to one of my papers made available on a conference website [www.parentingculturestudies.org](http://www.parentingculturestudies.org),<sup>[8]</sup> following a conference (and subsequently removed).

**3.15** Shortly afterwards, I received this email:

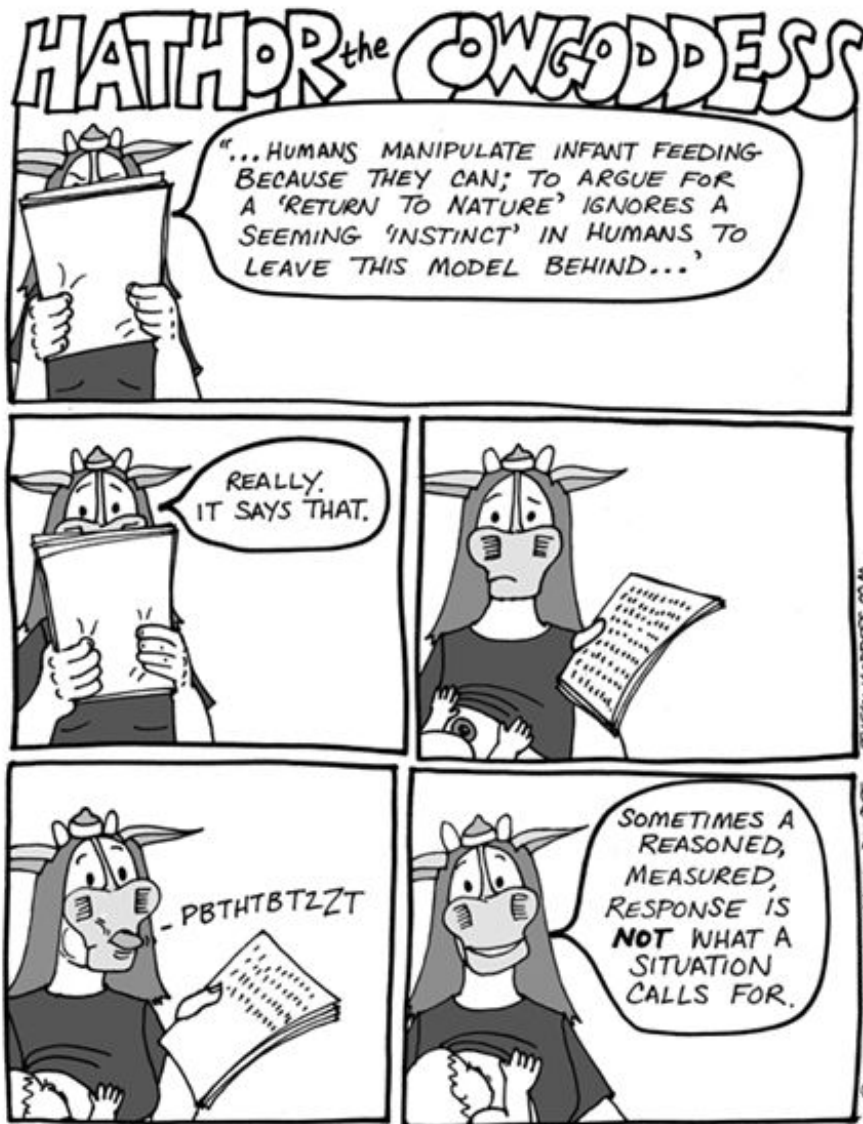
Hello Ms. Faircloth,

My name is Rebecca. I live in the Los Angeles area, CA, USA. I am an active member of LLL. I practice attachment parenting. I still breast feed my 4 and a half year old daughter, and we also co-sleep. I plan on doing both those things until she is ready to stop. I was reading one of my favorite websites, [www.thecowgoddess.com](http://www.thecowgoddess.com) when I came across a link to your study. That website is run by a mother who is a fervent supporter of anything attachment of [sic] natural parenting, and she draws/writes comics on those topics. Her latest topic is your study, which someone sent to her. Needless to say, the cow goddess, Hathor, is greatly insulted by your study, as am I. It is very patronizing, to say the least. *But, I do not have the energy to engage in an argument with you over what I know in my heart, and is backed up by science, is doing the right thing for my child.* I have however attached a link to an article from the July 2003 issue of Mothering Magazine, which supports natural family living. I often refer new moms, who are looking for a way to validate their parenting philosophies on their husbands or other family or friends, to this article. Read it and take from it what you will.

sincerely,  
Michaela Kuczynski [My emphasis]

**3.16** On the 'Hathor the Cow Goddess and the Evolution Revolution' website was a cartoon of the Cow Goddess, reading out loud from my presentation (which actually cites the work of Hausman, 2003):

**Figure 1.** Hathor the Cow Goddess



3.17 Hathor is the creation of an artist living in Los Angeles, California. She is:

...a superhero who wants to save humanity through the combination of nurture, sustainability and bonding inherent in the practice of attachment parenting. Her movement is called the Evolution Revolution, her breasts are her superpower and her sidekick is her baby, always carried in a sling and prominently (politically) suckling at her exposed breast...Hathor is a mother who stays with her children yet works as a woman of and ruling the world.

3.18 My own informants (only one of which, I believe, commented on this particular website) did not voice specific concerns about my conference paper – at least, not to me directly. Yet in some later emails, there was a suggestion that I had disappointed LLLI and the attachment parenting community by not advocating their practices more strongly (if at all). In fact, what irritated one of the commentators most was that she couldn't work out if I was 'for or against breastfeeding.' Several people suggested that I was 'anti-breastfeeding' either because I did not have children, or because I did, and was feeling guilty for not breastfeeding them. My (perceived) challenge to the foundations of attachment parenting was taken as a challenge to women's very conception of self:

Kindalady<sup>[9]</sup> said, February 3, 2008 @ 11:33 am.

That woman is not too bright, sorry to say. She has no credentials, her sources are limited and biased, and she is obviously just trying to reason away her own guilt for not breastfeeding...And besides, this is for the department of ANTHROPOLOGY, not medicine or psychology or anything that is even really applicable to scientific research on breastfeeding mothers and infants. Sorry to be so insulting, but academically and scientifically, this paper has no merit whatsoever.

3.19 It is clear that as a marginal, or 'non-conventional', network in society, it makes sense for attachment parents to legitimise their position through reference to 'science', the 'Authoritative Knowledge' *par excellence*. In many ways, however, it is ironic that my informants refer to science, since many attachment parenting advocates are openly sceptical about scientific knowledge. (Hathor herself demonstrates this uneasy relationship in the cartoon.) What is interesting then, is the selective use (and mis-use) of scientific evidence to support certain (moral) discourses about parenting.

3.20 As I turn to discuss now, Laura, below, agrees that little 'science' exists on children parented

according to AP methods. Yet at the same time that she advocates an 'affective' understanding of breastfeeding, she appears *not* to challenge the idea that science should be the ultimate arbiter in decision-making: once again calling for more 'science' to adjudicate:

Laura said, February 3, 2008 @ 7:56 am.

Some of what Charlotte wrote is true... There is no evidence that children in the industrialized world who are raised AP-style are better off than peers who were breastfed for 1 year but otherwise were birthed by c-section, transported in strollers, and placed in cribs. Indeed, I know plenty of perfectly wonderful mothers with great kids who did the latter. We need more research.

### ***The scientific case for full-term breastfeeding and attachment parenting***

**3.21** As Sinnott (2010) notes, the limited amount of studies around long-term breastfeeding have largely been conducted in the developing world, which makes it hard to compare with the UK context.<sup>[10]</sup> One of the few studies in the US noted little more than that of 38 children breastfed between 12 and 43 months, growth patterns were in 'normal' ranges.<sup>[11]</sup> The website [www.kellymom.com](http://www.kellymom.com), referred to frequently by many of my informants, has an 'extended breastfeeding factsheet' in which Kelly Bonyata, a lactation consultant (IBCLC) from the US collates much of the research into breastfeeding in toddlerhood. Despite the difficulty inherent to cross-cultural comparison, Bonyata's compilation is nevertheless useful, with its focus on nutritional benefits – showing how breastmilk continues to be a source of nutrients, including vitamins and folates, at what ever age it is consumed.<sup>[12]</sup> Indeed, because breastfeeding works on a supply-demand basis, breastmilk consumed by a child nursing less often will be more concentrated in these nutrients and immunological substances.<sup>[13]</sup>

**3.22** As might be expected then, nursing toddlers have been shown to be ill less often than their formula fed peers<sup>[14]</sup> (although these statistics should be read cautiously, as it is probable that those children who are breastfed into toddlerhood are those who spend more time with their mothers, and away from sources of infection such as children in childcare centres and so forth). Bonyata says that 'extensive research' on the relationship between IQ and length of breastfeeding has shown a correlative increase, though she does not reference any studies which show this per se (which in any event should also be contextualised at it is hard to separate breastfeeding from a wider socio-economic package). Bonyata cites Kniedel,<sup>[15]</sup> writing in the LLLI leaders' publication *New Beginnings*, who claims that there is no evidence that continued breastfeeding interferes with a child's ability or desire to eat other foods. Mothers themselves are also said to benefit from continuing to breastfeed, by reducing the risk of developing a range of cancers, decreasing in correlation with time spent breastfeeding (see for example, Lee *et al.* 2003; again, other factors may play a part in this).

**3.23** But the scientific case for extended breastfeeding goes beyond actual feeding itself (in terms of the transmission of breastmilk from mother to child). More often, evidence is presented around the approach to parenting which typically coalesces around this practice – attachment parenting. The limited evidence comes from two major bodies of work: psychological studies with a focus on attachment anxieties (stemming from the work of Bowlby, Ainsworth and others in the 1950s) and neuroscientifically informed work which draws on studies of brain development (such as that of Gerhardt 2004, Sunderland 2006).

### ***Psychological evidence***

**3.24** The work of Bowlby and Ainsworth between the 1950s and 1970s forms the basis of what is now known as 'attachment theory' (Bowlby 1960). Following observation of mother-infant pairs, the mother came to be understood as the infant's base of 'secure attachment.' The term refers to an infant's behaviour during a test devised by Ainsworth for children of over a year old. (A child is left alone in a room with a stranger; the infant's behaviour on seeing the parent again is the basis for classification into levels of attachment). The clinical definition of a securely attached infant is one who is distressed when the parent leaves, but easily comforted on their return. Bowlby argued that if the mother was absent (either physically and/or mentally) during the formative period of attachment, the child could suffer personality disorders such as anxiety or depression (Bowlby 1969, 2005 [1988]). This was founded on the belief that the mother-child bond is the lynch-pin of infant development, determining a child's ability to cope with future relationships (see Kanieski, 2010).

**3.25** Yet the evidence in support of this theory of 'attachment' has been called into question. Eyer notes that rather than being tied to a consistent primary attachment figure, or restricted to a specific sensitive period, 'attachment' should be considered a highly plastic phenomenon amongst human beings (1992: 69). It is also important to note a nominative slippage here: 'attachment' parenting, as a specific way of raising children has little correlation with the 'attachment' theory of Bowlby (i.e., practices such as co-sleeping, breastfeeding and baby wearing not necessarily being tied to the development of greater 'attachment' in mother-infant pairs).<sup>[16]</sup>

**3.26** Yet Bowlby and Ainsworth's ideas remain influential in literature around long-term breastfeeding and attachment parenting: LLLI say that the mother-baby relationship 'sets the prototype for other relationships throughout life' (2004: 185). Many women in my sample would refer to Bowlby's work when explaining their decision to carry out full-term breastfeeding and attachment parenting. Child-centred care, with mothers responding quickly to their infants' 'cues' was said to be a primary means of bringing about secure attachment.

**3.27** In this ilk is Veronika Robinson's book *The Drinks are on Me* (2007). This followed her appearance on

a Channel Four documentary called *Extraordinary Breastfeeding*, where she appeared breastfeeding her seven-year-old daughter. After the show aired, she received a lot of negative publicity (see Faircloth 2010, for examples of the fierce judgement women who breastfeed long-term can face). Her book is written as a response to her critics –and, like many of the women in my sample – she uses the language of science to defend and validate her choices. The appearance is that the statements in her book are backed up by clinical, psychological, 'scientific' evidence. For example:

When women once again listen to their intuitive voice, they'll know that although raising a child naturally takes an enormous amount of time and energy, it also brings a beautiful and irreplaceable, intimate connection. The children of such women won't form attachments to inanimate objects [such as dummies or comfort blankets] in the hopes of getting their needs met. *Instead, they'll form healthy, life-long relationships, and most importantly, will not be afraid to love* (53). Studies reveal a much lower divorce rate amongst people who received long-term breastfeeding as children (61). (2007: 145 Emphasis in original)

**3.28** The references from the last two sentences are to:

53: See the work of Pam Chubbuck for further information. Breastfeeding is essential for bio-psycho-spiritual health, Pam Chubbuck, PhD.

61: Breastfeeding: brain nutrients in brain development for human love and peace. See table 1, James Prescott's [www.violence.de/prescott.ttf/article.html](http://www.violence.de/prescott.ttf/article.html) [sic]<sup>[17]</sup>

**3.29** Pam Chubbuck's website describes her as a 'pastoral counsellor,' a psychotherapist and member of the International Faculty of the Institute of Core Energetics – she is also an LLLI leader. Prescott's work draws upon Textor's *A Cross Cultural Summary* (1967) to offer evidence from 20 societies where the weaning age is over two and a half years of age to argue that divorce rates are lower in those societies than those where the weaning age is earlier. It is somewhat problematic to compare rates of divorce in pre- and post-industrialised societies, if one accepts that marriage is as much an economic arrangement as much as an expression of 'love' through kinship bonds. Yet combining this with other evolutionary arguments, he states:

In summary, the lessons to be learned are clear. If *Homo Sapiens* is to survive as a species, he/she must return to the 'life plan' of Mother Gaia who, through her wisdom of millions of years of evolutionary biology and socio-biology, has provided for the intimate physical affectional bonding between mother and her offspring which establishes the foundation for later sensual affectional bonding and for human love itself. For without human love there can be no survival of *Homo Sapiens*.

### **Neuroscience: 'Real evidence'**

**3.30** In line with current policy and expert discourses, advocates also turn to neuroscientific work to edify their arguments about the importance of attachment parenting for the proper development of the infant brain (Wall 2004). This is a 'breakthrough,' as an article in *Mothering Magazine*<sup>[18]</sup> puts it (to which I was referred by Michaela, above), since proponents of attachment theory have, until recently, had little 'unbiased and testable information' with which to back up their claims:

In our society, attachment parenting is seen as just another of an array of parenting options, and is typically viewed as the most difficult and least appealing choice. What is missing is the science that modern assessment methods and technology can offer. Now, with the ability to study the intricacies of the brain and its functioning on a cellular level, science can deliver conclusive data to back up each aspect of Bowlby's comprehensive theory, and then some. The data are powerful and offer what no other parenting model puts forward: unbiased and testable information about the workings of the infant brain and the effects of both stress and health on brain development.

**3.31** In the UK, writers such as Sue Gerhardt in her book *Why Love Matters: How Affection Shapes a Baby's Brain* (2004) have drawn on neuroscientific work which looks at the interactions between parents and children and how these affect the structure of the infant brain (as does Sunderland's *The Science of Parenting*, 2006). The argument is that from late pregnancy on, through into the second year of life, the human brain undergoes a critical period of accelerated growth. With the use of MRI scans and other technologies, interaction between the development of the brain and the social environment ('nature' and 'nurture') can be evaluated. As the *Mothering Magazine* article argues, 'What has emerged is mounting evidence that stress and trauma impair optimal brain development while healthy attachment promotes it.'<sup>[19]</sup> (It should be noted, however, that the majority of these studies have been carried out on severely neglected children (Furedi 2002).

**3.32** During the early stages of distress, it is claimed, a baby's heart rate, blood pressure and respiration will be heightened, to which the brain responds by releasing stress hormones, elevating the brain's levels of adrenalin, noradrenaline, and dopamine.<sup>[20]</sup> Should the distress continue, the argument is that the infant may go into 'shut-down mode' – a 'survival strategy' allowing the infant to restore homeostasis. Prolonged periods in this state are alleged to have damaging effects on the development on the brain. Because the infant is in distress, the 'regulatory resources' of the body are dedicated to maintaining equilibrium, rather than focussed on 'normal' growth and development:

These kind of biochemical alterations in the rapidly developing right brain have long-lasting effects. In the infant, states become traits, so the effects of such early relational traumas



become part of the structure of the forming personality.<sup>[21]</sup>

**3.33** The reasoning is that an infant's focus on restoring equilibrium can permanently alter the chemistry of the brain, to the extent that 'states becomes traits,' and the child's personality shaped accordingly; thus children who experience stress in early life, it is argued, are more susceptible to mental health disorders in later life. It is worth reiterating, however, that whilst severe neglect does affect the functioning of the brain, it is not the case that the opposite is true, i.e., that a lot of interaction, 'bonding' or 'attachment' results in better brain functioning (Bruer 1999).

## Discussion

### *The is-ought confusion*

**4.1** This section explores some of the contradictions and paradoxes of using 'science' as an accountability strategy to justify particular parenting practices, and indeed, in other aspects of social life. I want to think about the social life of science here – not so much the practices of fact-making that Latour and Woolgar describe (1986) – but as scientific authority within contemporary cultural debates. When 'science' says something is healthiest for infants, it has the effect, for my informants, of shutting down debate; that is, it dictates what parents should do. My aim is not to dismiss claims of objectivity or reality; simply to call attention to interpretation. In short, science tells us much about the world, but the *meaning* we ascribe to these 'facts' (that is, how we should act on them) is not straightforward.

**4.2** Furedi has remarked that the replacement of scientific evidence with a more generic 'Science' is a trend on the increase in public life:

...today, it frequently seems as if scientific authority is replacing religious and moral authority, and in the process being transformed into a dogma. At first sight, it appears that science has the last word on all the important questions of our time. Science is no longer confined to the laboratory. Parents are advised to adopt this or that child-rearing technique on the grounds that 'the research' has shown what is best for kids. Scientific studies are frequently used to instruct people on how to conduct their relationships and family life, and on what food they should eat, how much alcohol they should drink, how frequently they can expose their skin to the sun, and even how they should have sex. Virtually every aspect of human life is discussed in scientific terms, and justified with reference to a piece of research or by appealing to the judgment of experts (2008).

**4.3** Furedi's argument echoes a much older one, of course. David Hume counselled against blurring the lines between description and prescription in his *Treatise Concerning Human Nature*:

In every system of morality, which I have hitherto met with, I have always remark'd, that the author proceeds for some time in the ordinary ways of reasoning, and establishes the being of a God, or makes observations concerning human affairs; when all of a sudden I am surpriz'd to find, that instead of the usual copulations of propositions, *is*, and *is not*, I meet with no proposition that is not connected with an *ought*, or an *ought not*. This change is imperceptible; but is however, of the last consequence. For as this *ought*, or *ought not*, expresses some new relation or affirmation, 'tis necessary that it shou'd be observ'd and explain'd; and at the same time that a reason should be given; for what seems altogether inconceivable, how this new relation can be a deduction from others, which are entirely different from it (1739/40 Section 1, Book 3).

**4.4** Hume's is-ought distinction remains pertinent today because parenting is not only an exercise in creating scientifically optimal children:

...turning science into an arbiter of policy and behaviour only serves to confuse matters  
...Yes, the search for truth requires scientific experimentation and the discovery of new facts; but it also demands answers about the *meaning* of those facts, and those answers can only be clarified through moral, philosophical investigation and debate (Furedi 2008).

### *The eclipsing of context*

**4.5** Rima Apple (1995) has described the ideology of scientific motherhood as one which designates good mothers as those who are guided by scientific information, subjugating their own perspectives to authoritative experts (Hausman 2003: 3). Similarly, the ideology of intensive motherhood celebrates scientifically informed care (Hays 1996). Although Apple talks specifically about the almost wholesale shift from breastfeeding to bottle-feeding in twentieth century US (offering a 'scientific, modern' form of feeding) her insights might just as well be applied to this new generation of 'neuroscientific motherhood.' Today, this kind of science – seen as a battle against the 'scientisation' of the formula manufacturers Apple describes – has been given the extra twist of 'returning to nature,' rather than moving away from it.

**4.6** But this reliance on science is problematic because it means 'science' becomes a yardstick by which we outline appropriate human interactions. 'Science' has the capacity to flatten out the affective, joyous qualities of the parenting relationship (although clearly this is an aspect women prioritise in other contexts of their 'identity work': Faircloth, forthcoming). Maternal love, according to the title of Gerhardt's book, is no longer simply an enjoyable part of the parenting experience, but a tool for optimising brain development. As Hausman comments about the use of science in breastfeeding advocacy more widely:

Breastfeeding advocacy, while resting partially on the idea of maternal nursing as natural

mothering, most often looks to science to verify its value and promote its interests. Such advocacy is problematic, I think, when it relies increasingly on the scientific case in its favour because that reliance simply knits a complex biosocial practice ever more firmly into science as the final arbiter of what we, as humans, should eat, how we should sleep, what kind of relationship we should develop with our children, and so on (2003: 152).

4.7 This flattening can eclipse areas of the infant feeding/parenting relationship, to the extent that the other pulls on a mother's time are left in the shade. This is perhaps especially pertinent where science says that intensive, embodied nurture carried out by the mother is the optimal form of care. The *Mothering Magazine* article, for example, notes the following:

Babies, we know, cannot survive on their own. All basic needs must be met through a relationship with a caregiver...In order to maintain emotional equilibrium, babies require a consistent and committed relationship with one caring person. As you might expect, the research indicates that the person best suited for this relationship is the mother.<sup>[22]</sup>

### **Science and social division**

4.8 When parents (or, mothers) respond to their baby's cues (of happiness, distress or otherwise) the argument presented in parenting literature is that they are ensuring 'optimal' development. As Gerhardt puts it:

When parents respond to the baby's signals, they are participating in many important biological processes. They are helping the baby's nervous system to mature in such a way that it does not get overstressed. They are helping the bioamine pathways to be set at a moderate level. They are helping to build up the prefrontal cortex and the child's capacity to hold information in mind, to reflect on feeling, to restrain impulses, that will be a vital part of his or her future capacity to behave socially (2004: 210).

4.9 She does point out that this can all sound quite 'daunting' and that, in actual fact, most parents 'do this anyway' (and undoubtedly for many parents, validating what they 'do anyway' in scientific language can be very reassuring). Yet the implications, according to the *Mothering Magazine* article are nevertheless profound:

What this means for parents raising children in today's world is sweeping. We need cultural changes – changes in expectation, in our view of parents, in our definitions of feminism and masculinity, in our economic systems and medical understandings. In its broader applications, attachment theory requires us to rethink most of what our society has taught us. We must let go of old learning and erroneous information in order to re-attune to our own connective instincts.

Advocates of scheduled feeding and sleeping routines can be 'shunned' because their methods have been 'proven' to be detrimental to infant development. In this instance, science seems only to exacerbate the division between different parenting 'camps.'

### **Conclusion**

5.1 Empirically, this paper has made a contribution to the growing body of literature around contemporary parenting practices in an 'intensive parenting' era (Douglas and Michaels 2004; Furedi 2002; Hays 1996; Lee 2007a, 2007b; Lee and Bristow 2009; Warner 2006). It has focused on the accounts of a set of mothers who practice a non-conventional parenting practice, but who act as a barometer of wider social trends. Through an exploration of the use of 'science' as an accountability strategy in justifying particular practices, the article therefore adds to wider sociological debates around the ways in which society and behaviour are regulated. The widespread 'scientisation' of parenting is not confined to expert literature or policy recommendations: rather, it is interpreted, internalized, and mobilized by individuals and networks in the course of 'identity work' (see also Wall 2010). The paper has also shown the need for close scrutiny of the knowledge claims made by such 'scientific' research (Bruer 1999, Eyer 1992).

5.2 With respect to parenting, it is arguable that the use of 'science' as an accountability strategy has a dual effect. First, it has the potential to flatten out the intimate aspects of parenting which are not reducible to doing what is 'healthiest', and which are embedded in broader socio-economic and 'affective' contexts (Massumi 2002). Clearly women do not discount 'affect' in their accounts of parenting, though 'science' remains the accountability strategy prioritized in the public arena (Faircloth, forthcoming). Second, and under the assumption that science contains 'no emotional content', a wealth of agencies with an interest in parenting – from policy makers and 'experts' to groups of parents themselves – now have a language by which to make what might better be termed *moral* judgements about appropriate childcare practices. As Furedi notes, the 'secular morality' of science is a pervasive, worrying trend. 'Science' is not a straightforward rationale in the regulation of behaviour, rather, it is one that requires rigorous sociological questioning and debate in delimiting the parameters of this 'is' and the 'ought'.

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## Notes

<sup>1</sup>Parallel research over four months was also conducted in Paris, though these data are not referred to here.

<sup>2</sup>These are women who practice an 'attachment parenting' philosophy in addition to being members of LLL. Classification is based on statistics and responses derived from the questionnaire – that is, those women breastfeeding their children beyond a year – as well as the author's observations at groups meetings and interviews.

<sup>3</sup>Women in this study demonstrate one particular permutation of intensive mothering, which is sometimes opposed to, and at other times in congruence with, wider norms of childcare.

<sup>4</sup>All names have been anonymised.

<sup>5</sup>As opposed to 'information' with a profit agenda, from formula milk manufacturers.

<sup>6</sup>Conversely, one leader noted that helping women to wean was one means LLL helps mothers deal with 'guilt': Sandra [35, breastfeeding her 4 year old daughter, leader] ... I really resent that idea that LLL puts pressure on women to breastfeed, or forces women to breastfeed. A lot of what we do about telling women 'how to stop' without causing them or their baby damage or too much pain. For example, one woman I talked to about stopping felt a lot better having discussed all the options, not guilty about not 'giving the best shot,' and that is a big part of it. If they stop it is because they really want to...'

<sup>7</sup>It is of course possible to be employed outside of the home and to breastfeed 'to full-term', if not 'on demand.'

<sup>8</sup>The ambiguity of 'publishing' in an era of uploading is, of course, an interesting issue in it's own right. This was the text of a 20 minute spoken presentation, that the organisers felt would be a useful 'resource' to be included on the site, rather than a polished 'paper' *per se*. Naively, perhaps, I did not believe it would be of interest to anyone except the conference attendees. The fact that one of my informants found the paper on an academic website is notable.

<sup>9</sup>Names have been anonymised

<sup>10</sup>Persseon et al. 1998; Taren and Chen, 1993.

<sup>11</sup>Buckley, 2001.

<sup>12</sup>Dewey 2001.

<sup>13</sup>Goldman *et al.* 1983.

<sup>14</sup>Gulick 1986.

<sup>15</sup>Kneidel 1990.

<sup>16</sup>Even though some research has shown that mothers who are sensitive and responsive to their infants' needs are more likely to have 'securely attached' children, the mother-infant dyads studied have not included mothers who show atypically high levels of involvement with their children. Empirical research on maternal over-protectiveness shows an association with raised levels of anxiety in children, suggesting that high intensity parenting *could* actually lead to insecure rather than secure attachment relationships between children and their mothers (McNamara 2006; there is little research on this topic).

<sup>17</sup>The link to Prescott's work should actually read <http://www.violence.de/prescott/ttf/article.html> Accessed 05. 06. 08.

<sup>18</sup>The science of attachment: [http://www.mothering.com/articles/new\\_baby/bonding/science-of-attachment.html](http://www.mothering.com/articles/new_baby/bonding/science-of-attachment.html) Accessed 08.03.08.

<sup>19</sup>The reference here is to Schore 2001.

<sup>20</sup>Brown 1982.

<sup>21</sup>The references in this paragraph are to Tronick and Weinberg 1997, Perry *et al.* 1995, Schore 2001 and McEwen 2000.

<sup>22</sup>References in this paragraph are to Schore 2001, Bowlby 1969 and Spangler *et al.* 1994.

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