

Is shaken baby syndrome a myth?

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13 April 2011

<http://keran-henderson-innocent.blogspot.com/2011/04/is-shaken-baby-syndrome-myth-times.html>

Dr Waney Squier is one of three pathologists challenging the science behind it. She says there is a campaign to keep them quiet. The phrase “shaken baby syndrome” evokes a powerful image that has stalked parents since Louise Woodward, the English au pair, was jailed in America 14 years ago. The British courts hear about 250 cases a year in which parents or carers are accused of “non-accidental head injury”, or shaking. But in the past few years, a number of doctors in America and Britain have raised questions about the reliability of the science.

One of these is Dr Waney Squier, consultant neuropathologist at the John Radcliffe Hospital in Oxford. Originally a believer in shaken baby syndrome (SBS), she has become a sceptic. But her appearances as an expert witness for the defence in court cases have come under attack. She and two other female pathologists believe that they are the victims of a concerted campaign by former colleagues, and even Scotland Yard. “I have been run out of the courts,” she says sadly. “But if people like me are not around, there is no defence for families.”

When I first met Dr Squier, I had been led to expect an obsessive, a naive defender of child abusers. Instead I found a woman with the thoughtful, precise manner that you would expect from one of the world’s leading experts on the infant brain. She was also as content to talk about her cats and her grown-up children as to discuss the scientific row that has come close to ruining her career.

Dr Squier believes that some parents and carers do harm their children. “I regularly see cases in which there is evidence of inflicted injury,” she says. But some, she thinks, may be innocent.

The theory of shaken baby syndrome was popularised by an American radiologist, John Caffey, in the 1970s, to explain why some babies suffered a “triad” of internal injuries in the brain and retina. Caffey suggested that they had probably been shaken if they also had bruises, fractures or other external signs of abuse. But the syndrome was soon being applied widely to children with no external injuries.

As the decades wore on, some prosecutors argued that the very existence of the triad was sufficient to prove that a child had been abused. Parents or carers who claimed that their child had fallen off a low sofa, or had collapsed after an infection, found that their explanations cut little ice against the orthodoxy.

One of these was Lorraine Harris, jailed in 2000 for shaking her baby son to death even though he had been having breathing difficulties after an immunisation, and she had made frantic calls to the doctor. She was freed in 2005 when it was accepted that the baby had suffered from a blood disorder. But she has not been allowed to see her second child, who was born in prison and taken away to be adopted.

Another controversial case is that of Keran Henderson, the childminder accused of killing 11-month-old Maeve Sheppard. Henderson was vilified in the press and convicted of manslaughter in 2007. But her impeccable record and her character references gave the authorities grave concern. "The CPS felt as if they were prosecuting Mother Teresa," one lawyer has told me.

Dr Squier was called as one of ten prosecution witnesses in the Henderson case, but became concerned about the way it was handled. "I told prosecuting counsel that the baby had been unwell for three weeks and had collapsed three times before death, going to hospital each time. That information was not used by the defence or prosecution."

Dr Squier's main concern is the challenges to the science that have come from biomechanics and pathology. In 1987 a Pennsylvania study that was undertaken to validate the SBS theory suggested that in fact it was virtually impossible for a person to exert the level of force needed to sustain the triad of injuries.

In 2000 a neuropathologist named Jennian Geddes became alarmed by the number of "shaken babies" in families with no history of abuse. She compared the brains of children thought to have been shaken with others who had died from natural causes. The brains were virtually indistinguishable. Dr Geddes suggested that some of the "SBS" babies might actually have suffered a low fall, or choking, which could trigger hypoxia (oxygen starvation).

When Dr Squier read the Geddes paper, it was as if a light went on. "I became concerned that the whole basis for shaking was poor. There are hundreds of people around the world who agree. As one of only two child neuropathologists in the country who regularly look at baby brains, I see babies who die of natural causes every day. Adult neuropathologists (who often act as expert witnesses) do not."

In 2008 two paediatric pathologists, Marta Cohen and Irene Scheimberg, published a paper based on their observations at post-mortem examinations. They said that it was not unusual for small babies who died of natural causes to have the kind of bleeding in

the brain found in SBS. “We know that none of them was subjected to shaking,” says Scheimberg. “Many of the babies had infections, and there was a high correlation with hypoxia (oxygen starvation). We concluded that there were many causes of these symptoms other than shaking.”

This paper was limited to foetuses and very young babies, and examined only brains, not retinas, so did not look at the whole triad. Clinicians and neurosurgeons say that most “shaking cases” involve children more than three months old, who do not exhibit subdural haemorrhages in cases of pure hypoxia, and that the paper is therefore irrelevant to SBS.

But Dr Scheimberg is adamant. She is a formidable lady who fled Argentina at the age of 20, when the military regime began arresting people she knew, and trained at Great Ormond Street. “Until a few years ago,” she says, “it was thought that you couldn’t have a subdural haemorrhage from a short-distance fall [for example, from a sofa]. Now we know that you can. In some of these cases in which parents are sent to jail, we don’t have enough evidence to be sure they are guilty.”

These three women — Squier, Scheimberg and Cohen — believe that they are legitimately questioning a scientific hypothesis. Squier and Scheimberg have both appeared as expert witnesses for the defence in shaken baby cases, as well as for the prosecution. All three have come under attack that feels to them at times to go beyond the usual approaches of cross-examination and peer review.

In March 2010 Irene Scheimberg received a letter from the Human Tissue Authority, saying that it had received a complaint about her from a fellow pathologist, who wished to remain anonymous. After a lengthy and distressing investigation, the HTA said that the complaint was unfounded. When Dr Scheimberg pressed to know who the fellow pathologist was, under the Freedom of Information Act, she was told that it was an old colleague who regularly appears as an expert witness for the prosecution.

“I was disappointed because I never expected something like that to come from a close colleague,” she says. “The first part of the complaint against me (that she had no approval for a research project) could have been a misunderstanding. But the second one (that she had used tissues without parents’ consent) was not. I think the HTA were manipulated.”

A few months later, Doctors Squier and Cohen were in the middle of a trial at the Old Bailey when the defending barrister told them that they were under investigation by the General Medical Council (GMC). The panel cleared them. But they were alarmed to find Scotland Yard listed as an “interested party” in the complaint, under the name of [Detective Inspector Colin Welsh](#), a police officer who was appearing in the Old Bailey on the other side from Squier and Cohen.

I have on my desk a sheaf of notes taken in secret by an American attorney at a conference in Atlanta where DI Welsh gave a presentation about shaken baby syndrome. He described a meeting between the police, Crown Prosecution Service and prosecution expert witnesses at New Scotland Yard that identified defence expert testimony as a problem and agreed to “question everything: qualifications, employment history, testimony, research paper presented by these experts, go to their bodies to see if we can turn up anything”. Under the heading of “How do you influence judges?”, he is alleged to have included “deal by back door” and “do not instruct biomechanical experts” [who have cast doubt on SBS].

The Metropolitan Police have confirmed to the BBC that DI Welsh did make a presentation in Atlanta that included an analysis of the possible reasons for prosecution failures, and that there was a discussion with the CPS in 2008 about contradictory expert witness evidence. But the Met has said that the police are “completely committed to the judicial process and would never seek to improperly influence it”. It is possible that the tone of the notes I have is exaggerated. But the Royal College of Pathologists has called for further investigation of the allegations. And Irene Scheimberg is deeply concerned: “I come from a country where false accusations were common. I’m frightened about what they could do next.”

Yet if there is a campaign against Dr Scheimberg and her colleagues, there seems also to be one against the other side. The GMC is currently investigating three complaints about Professor Anthony Risdon, a forensic pathologist at Great Ormond Street, all of which sound far-fetched. At least one was made by a campaigner who has a long history of making specious claims about all sorts of people. The ferocity with which both sides talk about each other makes one wonder, frankly, whether anyone is able to see straight. Both sides have claimed to me that the other is seeking to make money from appearing in court. That doesn’t ring true.

In the course of writing this article, I contacted three pathologists who are known to disagree with Squier and Scheimberg. Only one responded. He agreed to meet me but insisted on anonymity. When I asked why his side was so reluctant to put its case publicly, he said that “if the rest of us engage with an argument put out by a tiny minority, we give it a credence”.

He feels that the minority has a disproportionate influence over juries, who naturally do not want to believe that people kill children and are willing to latch on to what he regards as wholly unfounded theories about hypoxia.

He has faith in the CPS because, he says, it usually looks beyond the triad to factors that are highly correlated with guilt, such as inconsistent accounts of what happened or a delay in calling 999. Some inadequate young men left alone with a screaming

baby do lose control, he said. The question is not whether they are guilty but whether they should receive the kind of custodial sentence meted out to hardened child abusers.

It is a pathologist's job to look backwards, to piece together explanations from scans and tissue. And it is the desire to get a single answer from a complex pathology that seems most to upset Dr Squier: "I've been criticised twice for making a differential diagnosis of what could have happened to a baby — including choking. But that is the scientific gold standard, because in the vast majority of cases we're not able to ascribe a single disease to what we see, so we have a list of possible diagnoses. This is especially so with these little babies."

Dr Squier is particularly anguished about the criticism made of her and Marta Cohen in a case where a child had collapsed and died. A High Court judge said that they were contrary to "the mainstream of current thinking" and accused them both of "developing a scientific prejudice". This was a watershed. "Before that," says Dr Squier, "people were willing to hear what I had to say. A cross-examination was to test the strength of my opinion and evidence, not to rattle me in the witness box. I feel I could respond to the judge's comments very robustly, but there is no forum for me to do it."

Because the full details of the court hearings are private, we cannot report Dr Squier's evidence.

Does she feel that she has become partisan? It would be understandable, given the dogma that she feels she is up against. "On the contrary," she says, "I am not dogmatic. I am constantly reading new literature and revising my thoughts, and I have changed my mind. I am frustrated that there is so much new evidence but the other side says 'we know what this is, we've known for 40 years, we've seen it before, we're not going to change our minds'."

The judge who criticised Dr Squier so heavily was impressed by statements made by Dr Safa Al-Sarraj, consultant pathologist at King's College. Dr Al-Sarraj said in court that to his knowledge Dr Squier was the only neuropathologist in Britain who believed that hypoxia (oxygen starvation) could cause subdural haemorrhages (bleeding in the brain). He said that there were others who shared her opinion in different specialties, but that "they come in all the defence cases, so you don't realise that they are in such a minority".

As a lay person I find the science pretty impenetrable: I have a ring-binder of papers on my desk but am not much wiser. This cannot be helpful to judges. Nor does the adversarial system help, when lawyers want to "win" and juries tend to accept expert

evidence that is presented as scientific. When a child dies, it is only natural to want to know why. But what if no one is sure?

In 2008 the Court of Appeal freed babysitter Suzanne Holdsworth, who was serving a life sentence for murdering her neighbour's two-year-old son, supposedly by ramming his head into the banisters at 60mph. Holdsworth had always insisted that the boy had a fit, which is what she said in her frantic 999 call that tragic day. She was freed after experts argued that the child had a condition that predisposed him to epilepsy. Summing up, Lord Justice Toulson said that "as knowledge increases, today's orthodoxy may be tomorrow's outdated learning. Special caution is also needed where expert opinion evidence is not just relied upon as additional material to support a prosecution, but is fundamental to it".

Campaigners question the imprisonment of the childminder Keran Henderson and also an ex-army officer, Michael Burridge.

If Dr Squier's defence testimony was flawed, they ask, what about her prosecution testimony?

I am also concerned that wrongful conviction is being compounded by the removal of children. Ben Butler, a removal man from Sutton in Surrey, was convicted in 2009 of harming his baby daughter by shaking: he had rushed her to hospital with a head injury. The girl made a complete recovery, her head injury was later said to have been caused at birth and he was freed last year after sharing a cell for four months with a convicted sex offender. He is now in the family courts asking for the right to see his little girl, who was taken into care by social services after Butler's wife refused to agree that he was guilty. Who speaks for these people?

The divide within the Royal College of Pathologists is now so acrimonious that anyone speaking out on either side risks opprobrium. That does not help the justice system. Dr Squier believes that "the campaign [against us] has taken out of the courts any view that challenges the old hypothesis, and any hope of a fair trial".

If this is true, it matters enormously. For the difference between those who believe in the "triad" and those who are sceptical of it could be the difference between murder and tragedy.

Shaken babies: a case history

1946 Dr John Caffey, a paediatric radiologist, first theorised that subdural haematoma could be caused by trauma in this year. In the early 1970s he and Norman Guthkelch, a neurosurgeon, popularised the term "whiplash shaken baby syndrome" to describe injuries inflicted by a nanny who burped infants by shaking them vigorously.

1997 Louise Woodward was a 19-year-old British au pair convicted of involuntary manslaughter by a court in Massachusetts. The victim was eight-month-old baby Matthew Eappen, who died from a fractured skull and subdural haematoma. Dr Lois Smith, from the Boston Children's Hospital, judged that retinal haemorrhages in the baby's eyes were characteristic of shaken baby syndrome and Woodward was sentenced to a minimum of 15 years in jail for second-degree murder. This was reduced to involuntary manslaughter on appeal and she was released the same year.

1999 Michael Faulder from Gateshead was jailed for two-and-a-half years for causing grievous bodily harm to a seven-week-old boy. He claimed that he dropped the child accidentally while placing him in a pushchair. The child made a full recovery and Faulder's conviction was overturned on appeal in 2005.

2000 Lorraine Harris was convicted of manslaughter and given a three-year sentence over the death of her 16-week-old son Patrick in 1998. She was not allowed to attend his funeral and served 16 months in prison. Her conviction was quashed in 2005 by the Court of Appeal, as her lawyers argued that medical opinion on shaken baby syndrome had changed since the conviction was made.

2005 The conviction of Angela Cannings for murdering her two baby sons was overturned in 2003, leading to a review of 297 cases, including the test cases of Lorraine Harris and Michael Faulder, above. The Court of Appeal heard evidence that the three "tell-tale signs" of shaken baby syndrome — brain swelling, bleeding between skull and brain and bleeding in the retinas — could also be caused by a difficult birth, genetic disorders, vaccinations or falls from a low height. Another test case appeal was dismissed; in a fourth case a murder conviction was reduced to manslaughter.

2007 Childminder Keran Henderson was jailed for three years for manslaughter over the death of 11-month-old Maeve Sheppard from brain injuries alleged to have been caused by shaking. She has since served her sentence, but lost an appeal against her conviction last year.

2008 Audrey Edmunds was granted a new trial in Wisconsin and had her conviction overturned after spending 11 years in jail for the first-degree murder of seven-month-old Natalie Beard. The court had originally heard expert testimony that the injuries sustained by the infant had been inflicted in the two hours before her death, when she was in Edmunds's care, but the same pathologist took the stand at the appeal to testify that he now believed it possible for an infant to have a "lucid" interval between sustaining an injury and collapsing, rendering him unable to say that injuries associated with shaken baby syndrome were always inflicted immediately prior to

death.

Kaya Burgess